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Joseph Aistrup,
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Tianjin Normal University, China
Shuning Zhu,
Tsinghua University, China

*CORRESPONDENCE
Aitang Wei
✉ swat2001@xmu.edu.cn
Bo Li
✉ libo@gxu.edu.cn

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Analysis of the evolution of lottery policy in China from the perspective of policy cycle theory

Chunxiu Liu[1], Aitang Wei[2]* and Bo Li[1]*

[1]School of Public Administration, Guangxi University, Nanning, China, [2]School of Sociology and Anthropology, Xiamen University, Xiamen, China

Introduction: As a critical component of public policies, lottery policies can be systematically analyzed through the theoretical framework of Policy Cycle Theory. By mapping China's lottery policies onto this cyclical framework, this study aims to achieve two core goals: (1) systematically sort out the evolutionary process of lottery governance, analyze key challenges and adaptive adjustments at each stage, and summarize empirical insights from China's policy practice; (2) derive theoretical implications from China's empirical experience to advance policy process theory — particularly by identifying non-linear, recursive dynamics in the policy cycle that extend beyond the stylized sequential assumptions of mainstream models.
Methods: The study adopted a qualitative, theory-guided case study approach, primarily relying on an analysis of official policy documents, industry reports, and academic literature related to lottery policies in China. These sources are systematically reviewed to identify the key events, policy changes, and their underlying driving forces across different stages of the policy cycle.
Results: China's lottery policies have evolved through distinct stages within the policy cycle framework. Policy Formulation refers to the evolutionary process through which lottery policies gradually take shape. Decision-Making denotes the optimal choices made by policymakers based on the prevailing circumstances. Besides, Policy Implementation involves the concrete operationalization of lottery policies by implementers. Policy Evaluation explores the tools and objectives of ongoing lottery policies. In addition, the outcomes of policy evaluation may trigger a re-examination of existing problems and solutions, prompting the policy cycle to re-enter agenda-setting or other stages, or to maintain the status quo.
Discussion: This research provides a theoretical reference for advancing lottery policy research. It also offers actionable implications for optimizing public policy systems, not only in the lottery sector but also in broader contexts. Furthermore, it contributes to wider debates on policy cycle dynamics, particularly in non-Western, state-led governance settings.

KEYWORDS

China's lottery policy, China's lottery policy experience, lottery policy evolution, policy cycle theory, public policy

1 Introduction

1.1 Background of China's lottery policy evolution

After the founding of the People's Republic of China, lottery was prohibited by government decree for an extended period, primarily due to its widespread perception as analogous to gambling (Marionneau and Berret, 2018). In the mid-1980s, with the steady advancement of reform and opening up, the proportion of fiscal revenue in GDP continued to decline. Faced with

this fiscal pressure, government departments began exploring the use of lottery sales as a means to raise funds for social welfare undertakings.

Over nearly 40 years of exploration and development, China has established two nationwide lottery systems — sports lottery and welfare lottery — forming a unique national lottery industry with increasingly prominent social influence. Today, sports lottery sales outlets are ubiquitous across the country's urban and rural areas (Yao et al., 2024). Many influential newspapers and periodicals have set up dedicated lottery columns, and lottery-related programs are gradually expanding their reach. The term "lottery players" has even become a household phrase, all of which indicate that sports lottery has integrated into the fabric of social life (Zhou and Zhang, 2017; Guo and Manly, 2024).

However, the rapid development of the lottery industry has also been accompanied by recurring chaos in the domestic lottery market. To promote the standardized development of the industry, the Chinese government has successively issued a series of lottery policies (Xu et al., 2023), which have now become an important component of the country's public policy system.

1.2 Literature review: development and limitations of policy cycle theory

1.2.1 Development of policy cycle theory

Public policy is a complex system involving a series of decision-making processes, multiple stakeholders, diverse institutions, and various policy tools (Knill and Tosun, 2020; Sahn, 2025). To simplify the analysis of public policy formulation, many scholars have divided the policy process into discrete stages and sub-stages, with the sequence of these stages referred to as the "policy cycle" (Jalonen, 2025). The policy cycle theory has undergone a progressive evolution spanning seven decades, evolving from a linear stage framework to a dynamic, context-sensitive analytical tool. Different scholars have proposed varying frameworks for the policy cycle stages, reflecting the evolution of theoretical understanding.

1.2.1.1 Foundational initiation stage (1950s)

Initiated by Harold D. Lasswell in the 1950s, he explicitly proposed in the book *The Policy Sciences: Recent Developments in Scope and Method* (1951) that the policy process is the core object of study of policy sciences (Lasswell, 1951). He was the first to advocate simplifying the complexity of public policy. He defined the policy process as seven key stages: (1) intelligence, (2) promotion, (3) prescription, (4) invocation, (5) application, (6) termination, and (7) appraisal (Lasswell, 1971). This cyclical provided a structured lens through which scholars and practitioners could examine how policies emerge, evolve, and interact with various social and political contexts. This foundational stage marked the beginning of a more rigorous and comprehensive approach to understanding public policy dynamics, setting the stage for subsequent refinements and expansions of the policy cycle framework in the following decades.

1.2.1.2 Model formation stage (1960s-1970s)

This stage primarily focuses on model optimization, involving the simplification and refinement of stage division. Dror (1968) proposed the optimal model in *Public Policy-making Reexamined*. The optimal model includes three major stages: metapolicymaking, policymaking, and post-policymaking. He broke the stages down into 18 interrelated steps emphasizing dynamic feedback (Dror, 1968). Charles Jones simplified it to a five-stage model (problem identification, formulation, legitimation, application, evaluation) in *An Introduction to the Study of Public Policy* (1970) (Jones, 1970), which became the basis for subsequent mainstream models. Anderson (1979) further refined the framework, identifying five major subsystems for the policy implementation cycle: Problem formation, Formulation, Adoption, Implementation, Evaluation (Anderson, 1979). Brewer (1974) expanded the policy process beyond government institutions, proposing six key stages: (1) Initiation, (2) Estimation, (3) Selection, (4) Implementation, (5) Evaluation, and (6) Termination (Brewer, 1974). The expansion of frameworks and the increased focus on dynamic feedback mechanisms during this stage significantly enhanced the understanding of how policies are formulated, implemented, and adjusted.

1.2.1.3 Stage of link deepening and sub-theory emergence (late 1970s-early 1990s)

This stage focused on the key links of the phase. Jeffrey L. Pressman and Aaron Wildavsky revealed the complexity of policy implementation (Pressman and Wildavsky, 1973). Daniel A. Mazmanian and Paul A. Sabatie constructed a comprehensive implementation model, emphasizing the variables and interactions in the implementation process (Mazmanian and Sabatier, 1983). A pivotal theoretical contribution to agenda-setting research is John Kingdon's "Multiple Streams Framework," which delineates three distinct yet interactive streams (the problem stream, the policy stream, and the political stream) to unpack the mechanisms by which specific issues are prioritized in the public policy process (Kingdon, 1984). In summary, the Deepening Phase (1970s–1980s) of Policy Cycle Theory marked a critical shift toward targeted exploration of core policy process links. These contributions refined the theoretical understanding of key stages in the policy cycle, laying a solid foundation for the subsequent maturation and integration of Policy Cycle Theory.

1.2.1.4 Critique, integration and framework finalization stage (1990s-circa 2010)

During this stage, the linear and static flaws of traditional stage-based models were criticized, and a more dynamic and integrated framework was proposed. Howlett and Ramesh's (1995) synthesized the logic underlying these models, arguing that the core logic of the policy cycle is rooted in applied problem-solving. They mapped the stages of applied problem-solving to corresponding stages in the policy process (Table 1), emphasizing the cycle's practical relevance (Howlett and Ramesh, 1995). Their five-stage model (Problem Recognition → Agenda-Setting; Proposal of Solutions → Policy Formulation; Choice of Solutions → Decision-Making; Implementation → Policy Implementation; Monitoring → Policy

TABLE 1 Five stages of the policy cycle and their relationship to applied problem-solving (**Howlett and Ramesh, 1995**).

Applied problem-solving	Stages in policy cycle
1. Problem Recognition	1. Agenda-Setting
2. Proposal of Solution	2. Policy Formulation
3. Choice of Solution	3. Decision-Making
4. Putting Solution into Effect	4. Policy Implementation
5. Monitoring Results	5. Policy Evaluation

Evaluation) has become the mainstream framework in public policy research. Jann and Wegrich (2006) first makes a core contribution by systematically combing the evolutionary context of Policy Cycle Theory. It also contributes theoretically by critically pointing out the limitations of traditional linear and static policy cycle models and proposing directional insights for theoretical advancement, which lays a foundation for the subsequent optimization of Policy Cycle Theory and its application in non-Western governance contexts.

1.2.1.5 Cross-context adaptation and dynamic optimization stage (2010-present)

This stage broke through the contextual limitations of "Western multi-stakeholder governance." It began to focus on non-Western "state-led governance" contexts, explored the "non-linear and recursive" characteristics of the policy cycle, and promoted the theory's transformation toward "dynamic adaptation". Jalonen (2025) introduced "complexity theory" into policy cycle research, emphasizing that the policy cycle is a system of "multi-stakeholder interaction and dynamic coupling of multiple factors" rather than a linear superposition of discrete stages. Howlett et al. (2020) critiqued the traditional policy design assumption that "getting incentives right ensures compliance"—highlighting its neglect of policymakers' behavior in constructing policy targets and the complex subjective/objective conditions shaping policy-takers' attitudes. He further identified four key knowledge gaps in policy instrument research. This stage further integrates complexity theory into policy cycle studies, develops adaptive mechanisms for hybrid sectors (e.g., lottery, PPP), and embeds non-Western variables like administrative hierarchy, breaking Western-centrism and strengthening the theory's ability to explain complex realities.

1.2.2 Limitations of existing research

Despite its widespread adoption, Policy Cycle Theory faces three critical limitations that motivate this study:

Overemphasis on linearity: Mainstream models (including Howlett and Ramesh's framework) assume a sequential, discrete progression of stages, but empirical evidence from non-Western, state-led governance contexts (e.g., China) reveals non-linear, recursive dynamics (e.g., overlapping stages, repeated adjustments) that remain under-theorized.

Neglect of administrative hierarchy: Most policy cycle research focuses on Western, multi-stakeholder governance systems (e.g., environmental or health policy), with limited attention to how administrative hierarchy and top-down steering shape policy processes in state-led systems.

Underexploration of hybrid sectors: Lottery policy — a "hybrid" sector where state monopoly coexists with market dynamics — has been largely ignored in policy cycle research. Existing studies of China's lottery policy are primarily descriptive, lacking theoretical engagement with how hybridity influences cycle dynamics.

1.2.3 Research gap and objectives

The aforementioned limitations contribute to the identification of three key research gaps:

- *Theoretical*: Mainstream policy cycle models assume linearity and clear stage boundaries, but empirical evidence from state-led governance (e.g., China) suggests non-linear, recursive dynamics that remain under-theorized.
- *Empirical*: Lottery policy is an underexplored domain in public policy research, especially in China, where its hybrid (state-market) nature and rapid evolution offer unique insights into policy cycle dynamics.
- *Methodological*: Existing studies of China's lottery policy lack explicit methodological justification and theoretical dialog with policy process literature.

To address these gaps, the study sets three objectives: first, to systematically map the evolution of China's lottery policy onto Howlett and Ramesh's five-stage policy cycle model; second, to identify deviations from the model's stylized assumptions (e.g., non-linearity, stage compression) and formalize these as theoretical propositions for advancing policy process theory; third, to explain how administrative hierarchy, institutional incentives, and stakeholder interactions shape policy dynamics across different stages.

2 Research methodology

2.1 Research design

This study adopts a qualitative, theory-guided case study approach to analyze China's lottery policy evolution through the lens of Policy Cycle Theory. Case study design is appropriate here because it enables in-depth exploration of complex, context-dependent policy processes — critical for understanding how institutional and cultural factors (e.g., China's administrative hierarchy) shape policy cycle dynamics. The study follows a "theory application-extension" logic: first applying Howlett and Ramesh's five-stage model to structure empirical data, then extending the model by identifying deviations and formulating theoretical propositions.

2.2 Data sources

Data collection follows a triangulation strategy to ensure validity, drawing on three primary sources:

Official policy documents: Including State Council circulars (e.g., *Circular on Ceasing the Issuance of Lottery Tickets* [1985], *Circular on Strengthening Lottery Market Management* [1994]), ministerial regulations (e.g., *Regulations on Lottery Management* [2009]), and annual reports from the Ministry of Finance, Ministry of Civil Affairs, and General Administration of Sport of China. These documents provide primary evidence of policy formulation, decision-making, and implementation.

Industry and academic records: *China Lottery Yearbook* (1987–2002, 2013) for sales data, market trends, and institutional changes; peer-reviewed studies for supplementary analysis of policy effects and market dynamics.

Secondary administrative data: Online government portals (e.g., Ministry of Finance official website) for policy updates, public welfare fund allocation reports, and regulatory announcements (e.g., 2015 suspension of online lottery sales).

All data were collected between January 2023 and December 2024, with a focus on documents that explicitly address lottery policy goals, implementation measures, and evaluation outcomes.

2.3 Analytical framework

The analysis is structured around Howlett and Ramesh's five-stage policy cycle model, with each stage evaluated against three criteria: (1) key actors and their incentives; (2) core policy actions and challenges; (3) deviations from the model's linear assumptions. This framework ensures both systematic coverage of the policy process and explicit engagement with theoretical dynamics.

3 Overview of China's lottery policy

Article 2 of the *Lottery Management Regulations* defines a lottery as "Lottery refers to the certificate issued by the state for the purpose of raising public welfare funds, sold according to law, and obtained the chance of winning in accordance with specific rules." Issuing lottery tickets has become an important tool for China to raise public welfare funds. Combining academic perspectives and official documents, the development of China's lottery policy is divided into five stages: Blank Stage, Budding Stage, Rectification Stage, Development Stage, and Improvement Stage (Figure 1).

3.1 Blank stage (the late qing dynasty—the Republic of China)

Lottery-like activities first emerged in the Roman Empire over 2,000 years ago. While China's early lottery-related practices can be traced back to the Tang Dynasty, the country's modern lottery industry originated in the mid-19th century. Historical records show that Spanish lotteries were sold in Shanghai in the early 1860s, with annual sales exceeding 4 million taels of silver in the first year and an average of nearly 1 million taels of silver per year by the 1890s. Collectively, such lottery activities in China generated approximately 20–30 million taels of silver in revenue during this period.

Regarding the origin of China's modern lottery, the academic community has different views on this. One view is that the "Weixing" game popular in Guangdong Province is the prototype of modern sports lottery (Zhi-Qiang et al., 2001; Zhang, 2025); the "White Pigeon Ticket," which was popular in eastern Guangdong during the Qianjia period, is one of the earliest forms of lottery in China (Li-Feng, 2003); and "Weixing" and "White Pigeon Ticket" can only be said to be similar to modern lottery (Hu, 2004).

Although there is controversy about the origin of the modern lottery, the opinions on the origin of lottery policy are unified. At this stage, although there are officially issued lotteries, there was a complete lack of systematic policy frameworks for regulation and management. This policy vacuum, coupled with unregulated lottery activities, laid the groundwork for subsequent policy development.

3.2 Budding stage (1984–1993)

In the mid-1980s, China launched the reform of the socialist market economy system. During this period, the work scope of Chinese government departments gradually shifted from the field of production and construction to the fulfillment of social public affairs management responsibilities. China's fiscal expenditure structure is a legacy of the planned economy. By then, this structure had not been adjusted accordingly. As a result, the normal development of social welfare undertakings lacked effective financial guarantees. Therefore, the sale of lottery tickets has become an important method for our government to raise funds for social public welfare undertakings.

In May 1985, the State Council issued China's first national regulatory document on lottery ticket sales. This issuance was based on the actual situation of lottery-related practices among some

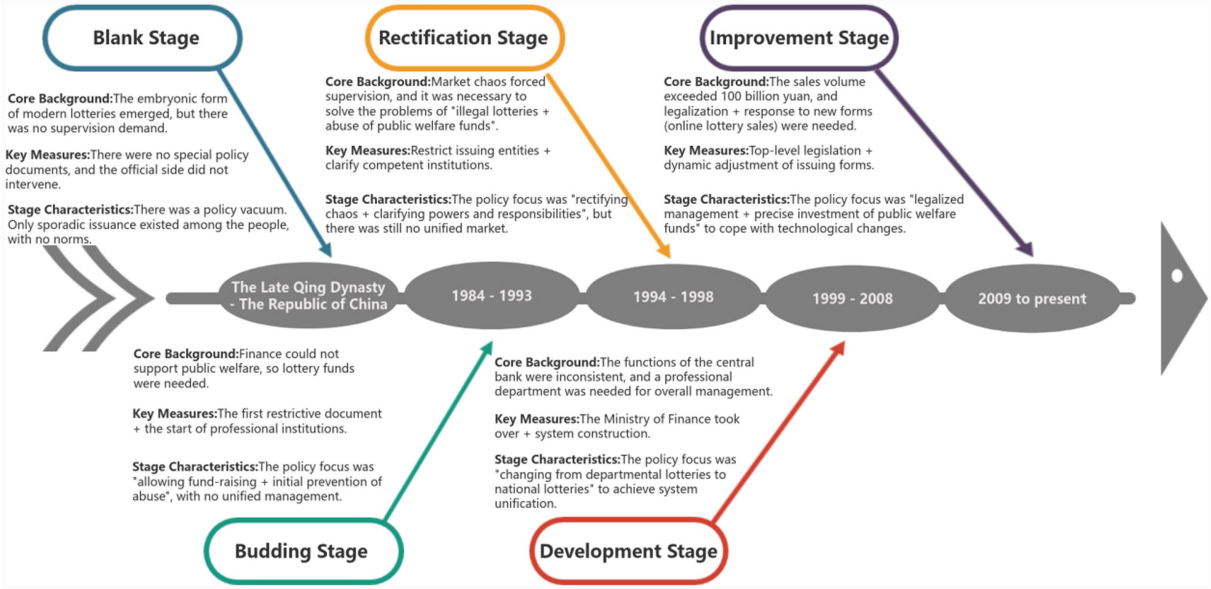

FIGURE 1
The development stage of China's lottery policy. The timeframes and core characteristics of each stage are summarized based on official policy documents and academic research.

industrial and commercial enterprises and institutions. The document in question is a binding one titled the *Circular of the State Council on Ceasing the Issuance of Lottery Tickets [Guo Fa (1985) No. 31]*. The specific content of the document mainly targeted industrial and commercial enterprises and public institutions, prohibiting the issuance of various types of lottery tickets by the industrial and commercial, cultural, and sports sectors.

Subsequently, in 1987, the "China Social Welfare Award Fundraising Committee" (hereinafter referred to as "Chinese fundraising Committee") was established in Beijing (Editorial Committee of China Lottery Yearbook, 2003). In 1993, it was named "China Social Welfare Award Distribution Center," and in 1994, it was officially renamed "China Welfare Lottery Distribution Center".

In December 1991, according to the chaotic situation in the lottery market at that time, the State Council put forward specific provisions for the management of the lottery market for the first time through the *Circular of the State Council on Strengthening Lottery Market Management [Guo Fa (1991) No. 68]* to improve the management of the lottery market.

The Budding Stage was characterized by four key features:

1 Diversification distribution entities: Lottery issuance was carried out by both temporary institutions for public welfare activities and national professional lottery distribution agencies.
2 Overlapping of issuers and fund users: The issuance of lottery tickets is mostly borne by the institutions that use lottery public welfare funds and the local government departments. The financing agencies and organs for the use of lottery public welfare funds are often the same entity. Whoever issues lottery tickets uses the lottery public welfare funds, while the government departments basically did not interfere in the collection, distribution, and use of lottery public welfare funds.
3 Lack of unified administrative department and management system: No government functional department was tasked with the overall planning and supervision of the national lottery market, and no unified, standardized lottery management system was established. The State Council typically handled lottery-related matters through *ad hoc* procedures.
4 Fragmented sports lottery circulation: Sports lottery sales were geographically fragmented and discontinuous, with variations in sales objectives, application scopes, and organizational structures, preventing the formation of a unified national sports lottery trading market (Editorial Committee of China Lottery Yearbook, 2003).

3.3 Rectification stage (1994–1998)

The unregulated expansion of the lottery market, along with issues like unauthorized private participation and unreasonable financial practices, led to serious market disorder. This situation attracted great attention from the General Office of the Communist Party of China Central Committee and the General Office of the State Council. In May 1994, the two offices jointly issued *the Circular on Strengthening Lottery Market Management and Prohibiting Unauthorized Approval of Lotteries* [Zhong Ban Fa (1994) No. 21]. This circular marked the start of rectification and governance work for China's lottery market.

Departmental sports lottery distribution and management system established on the basis of this. The General Office of the State Council has only authorized two administrative departments to sell lotteries nationwide. These two departments are the Ministry of Civil Affairs and the former State Sports Commission (now renamed the General Administration of Sport of China). Specifically, the Ministry of Civil Affairs is responsible for selling welfare lottery, while the former State Sports Commission (now the General Administration of Sport of China) is responsible for selling sports lottery. Meanwhile, the lottery public welfare funds were used for social welfare undertakings, with the civil affairs department and the sports department, respectively, using the funds within the scope of their own functions. In the same year, the People's Bank of China was officially designated by The State Council as the competent lottery authority in China.

The Rectification Stage exhibited three main characteristics:

1 Standardized administrative oversight: The designation of the People's Bank of China as the State Council's lottery authority standardized government administrative power over lotteries. Additionally, all game rules and distribution mechanisms adopted by welfare and sports lottery institutions need to be submitted to the People's Bank of China for approval.
2 Departmental management of public welfare funds: Lottery public welfare funds were managed separately by the Ministry of Civil Affairs and the State Sports Commission, effectively making lotteries a key fundraising tool for both departments.
3 Fragmented market structure: The lottery market was divided between welfare and sports lottery institutions, with no unified norms for issuance, sales, financial management, or public welfare fund management. A unified national lottery market system remained unestablished.

3.4 Development stage (1999–2008)

Following the rectification stage (1994–1998), which focused on clarifying regulatory entities and curbing market chaos, the development stage (1999–2008) witnessed two major shifts: the adjustment of lottery regulatory authorities and the reform initiated by the Ministry of Finance.

The People's Bank of China took charge of lottery management in 1994. Over time, it developed a deeper understanding that "the lottery serves as an important policy tool for the government to adjust the social income distribution structure." With this deepened understanding, the People's Bank of China realized that lottery management was inconsistent with its own functions. So, in May 1999, it requested the State Council to transfer lottery functions to the Ministry of Finance. The same year, in July, with the approval of the State Council, the lottery functions were transferred to the Ministry of Finance, which then proceeded to study the reform of the lottery management system.

After taking over lottery supervision, the Ministry of Finance focused on five key areas:

1 Assuming overall responsibility for all lottery-related work;
2 Standardizing the existing lottery management system;
3 Establishing and improving institutional frameworks for lottery management;

4 Optimizing lottery issuance and sales plans and enriching lottery product types;
5 Adjusting the distribution policy of lottery public welfare funds and expanding the scope of their use.

The Development Stage was defined by three core features:

1 Regulatory authority transition: The People's Bank of China gradually withdrew from lottery management, and the Ministry of Finance became the State Council-level competent authority for lottery supervision. Local governments at all levels assumed primary administrative responsibilities in the lottery industry, solidifying lotteries' role as a tool for social income redistribution.
2 Unified management system: China established a unified lottery management system, essentially completing the institutional integration of the national lottery market.
3 Shift from "departmental lotteries" to "national lotteries": Adjustments to public welfare fund distribution policies and the expansion of fund use scope indicated that national lotteries were replacing departmental lotteries. This shift fully reflected the public welfare nature of China's lottery funds.

3.5 Improvement stage (2009 to present)

The China lottery boom began in 1987, after more than 20 years of steady development, by 2007, total sales of lotteries (including welfare lotteries and sports lotteries) had exceeded 101.673 billion yuan. It marked the first time that China's lottery sales surpassed the 100 billion-yuan threshold. Lotteries have played a significant role in advancing economic development and social welfare initiatives.

As the scale of lottery issuance expanded and sales volume grew, the need for standardized lottery management became increasingly urgent. In 2009, the *Regulations on Lottery Management*, which comprises six chapters and 45 articles, with Chapter 6 serving as supplementary provisions. Chapter 1 contains general provisions on the lottery management system. Chapters 2 to 5 of the Regulations on Lottery Management cover standards for lottery issuance and sales management, lottery ticket management, lottery fund management, and corresponding legal liabilities. This regulation elevates lottery management to the legal level to guide the development of the lottery market. Its purpose is to ensure the orderly and stable operation of the lottery market, safeguard the legitimate rights and interests of lottery participants, and further promote the vigorous development of social public welfare undertakings.

The Improvement Stage is characterized by three key trends:

1 Increasing legalization and standardization: The legal framework for lottery management has been continuously strengthened, with a growing number of lottery-related policies issued to standardize industry practices (Figure 2).
2 Evolving issuance forms: The form of lottery issuance keeps pace with the times, shifting from traditional physical sales to telephone sales and online sales. However, the boom of online lottery sales has brought chaos. In 2015, online lottery sales were completely suspended (Li, 2019). Since the outbreak of the COVID-19 pandemic in 2019, discussions on reopening online lottery sales have gradually intensified.
3 Expanded public welfare fund coverage: The scope of lottery public welfare fund use has been continuously expanded, benefiting more groups. For example, the combination of the lottery public welfare funds and the poverty alleviation and agricultural assistance projects has continuously expanded the benefits of the public welfare fund, and achieved obvious results.

The aforementioned historical stages reflect the dynamic evolution of China's lottery policies. To further explore the underlying logic of this evolution, the following section analyzes the policy process using Howlett's five-stage policy cycle theory.

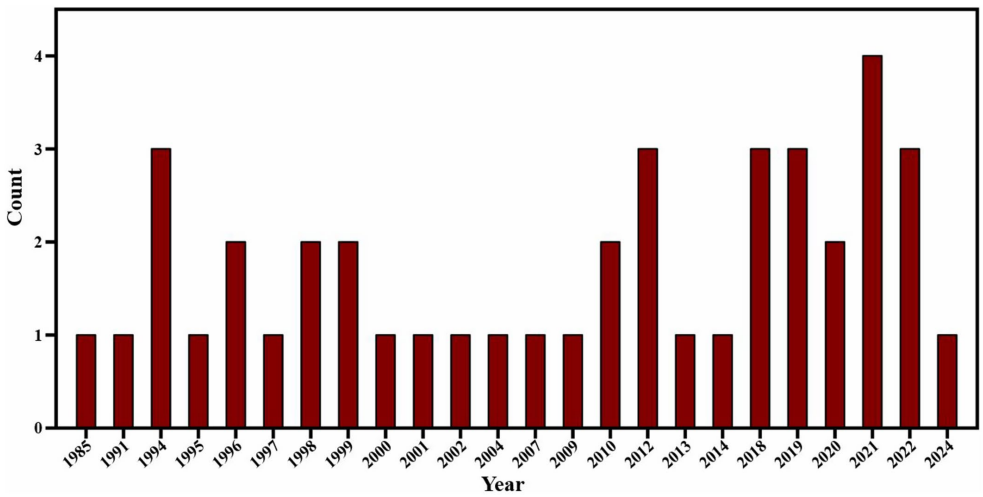

FIGURE 2
China lottery policy annual release statistics (1985–2024). Data source: China Lottery Yearbook (1987–2002, 2013); Official Website of the Ministry of Finance; Official Website of the Ministry of Civil Affairs; Official Website of the General Administration of Sport of China.

4 Analysis of China's lottery policy process

The analysis of China's lottery policy process, rooted in the policy cycle theory, systematically reveals the dynamic evolution of China's lottery governance from problem response to institutional optimization. This process, encompassing five core stages (Agenda-Setting, Policy Formulation, Decision-Making, Policy Implementation, and Policy Evaluation), follows a clear logic of "problem-driven adjustment + systematic improvement". Notably, authority distribution, stakeholder incentives, and administrative hierarchy are not merely contextual backdrops but core drivers that shape interactions across stages, redefining the boundaries and dynamics of the policy cycle in China's state-led governance context. Below is a refined analysis integrating these dimensions.

4.1 Agenda-setting: top-down administrative steering

Agenda-setting is the first and most critical part of the policy cycle. It is the process by which issues gain government attention. In China's lottery policy, this stage was driven by two waves of top-down problem recognition, aligned with central administrative priorities:

1 *1980s fiscal crisis*: In the mid-1980s, China's economic system reform gradually expanded from rural to urban areas, strengthening the role of market mechanisms. The reform was achieved through the basic methods of reducing taxes and giving profits to enterprises and streamlining administration and delegating power to local governments (Xuejiao and Liguo, 2016). While this reform reshaped government functions, China's fiscal expenditure structure—formed under the planned economy—failed to adapt accordingly. Compounded by tax reduction policies for enterprises, the proportion of fiscal revenue in GDP declined rapidly, leaving insufficient financial resources to support social welfare undertakings. Against this backdrop, using lotteries to raise funds for social welfare became a logical strategic choice. Influenced by the cultural context of the time and limited understanding of the lottery's nature, the pilot issuance of lotteries was conducted in the form of prize-bearing donation coupons.
2 *1990s market chaos*: In the 1990s, with the rapid development of the lottery industry, a lot of market chaos also emerged, such as the prevalence of illegal lotteries and the irrational use of lottery public welfare funds. In December 1991, as China's sports lottery market fell into turmoil, social and economic order also encountered huge challenges. In order to strengthen the supervision and administration of the lottery market, *Regulations on the Supervision and Administration of the Lottery Market* were clearly issued for the first time. These regulations require strict management of lottery raised funds, clarify the People's Bank of China's responsibility for lottery management, and strictly regulate the scale of lottery issuance and penalties for violations.

Deviation from Model Assumptions: Unlike the mainstream model's emphasis on "bottom-up" agenda-setting driven by diverse stakeholders, China's lottery policy agenda was shaped by top-down administrative steering. Local governments and non-state actors exerted minimal influence, as agenda priorities were tightly aligned with central goals—first addressing fiscal shortages for social welfare (1980s) and later curbing market chaos (1990s).

These context-specific observations—rooted in China's state-led governance and the lottery's hybrid (state monopoly + market dynamics) nature—highlight a gap in mainstream Policy Cycle Theory, which overlooks administrative dominance in agenda-setting for such sectors. This leads to the first theoretical proposition:

Theoretical Proposition 1: In state-led governance systems, Agenda-Setting for hybrid (state-market) sectors (e.g., lottery) is primarily driven by central administrative priorities rather than bottom-up stakeholder demands. While this top-down logic accelerates the framing of policy issues, it may also marginalize local or non-state concerns, creating potential implementation gaps.

4.2 Policy formulation: institutional alignment over technical feasibility

Once lottery policy is placed on the public policy agenda, the next stage—Policy Formulation—commences. This stage involves defining policy problems, examining alternative solutions, and accepting or rejecting potential options, with its core focus on assessing the feasibility of proposed solutions. During this process, policymakers eliminate options deemed unworkable or inconsistent with policy objectives. Policy Formulation is often an extremely lengthy and complex process depending on the circumstances. Lottery policies exist to regulate the order of the lottery market and ensure the rational use of lottery public welfare funds. Under the guidance of this established goal, the best plan is selected based on the implementation effect through policy drafts, consultation drafts, interim drafts, etc., and an analysis of the policy's feasibility is conducted. For China's lottery policy, this stage was marked by iterative institutional adjustment to align with administrative functions:

1 1991–1994: The State Council initially entrusted the People's Bank of China with the responsibility of lottery management and then explicitly designated it as the authority in charge of lottery work under the State Council. These changes also reflect the objective trends and characteristics of the lottery industry's development. One key trend and characteristic is that lotteries must be owned by the state. Another key point is that lotteries must be under the overall supervision and management of government functional departments.
2 1999: With the accumulation of management experience and the vigorous development of lotteries, the People's Bank of China gradually realized that lottery management work was inconsistent with the functions stipulated in the *Bank Law*. Therefore, in 1999, with the approval of the State Council, the lottery management functions were transferred to the Ministry of Finance, which then proceeded to study the reform of the lottery management system. After the Ministry of Finance completed the institutional reform of lottery management, the transformation of lotteries from a departmental nature to a national nature was successfully achieved.

3 2009: The Ministry of Finance led the drafting of *Regulations on Lottery Management*, with multiple rounds of consultation with civil affairs and sports departments to ensure institutional compatibility. This regulation is formulated to strengthen lottery management, standardize market development, maintain market order, and promote social public welfare undertakings. The financial department of the State Council is responsible for overall supervision and management in this regard, while the civil affairs department and sports administrative department, respectively, participate in the specific management of welfare lotteries and sports lotteries.

Deviation from Model Assumptions: Howlett and Ramesh's model assumes Policy Formulation is a discrete, technically oriented stage—centered on evaluating the feasibility of solution alternatives. By contrast, China's lottery policy formulation was deeply intertwined with institutional restructuring: key decisions were driven not by technical assessments, but by the need to align regulatory responsibilities with the core institutional mandates of government agencies. This deviates sharply from the model's focus on technical feasibility, highlighting a gap in mainstream theory regarding cross-departmental policy dynamics in state-led contexts.

These context-specific observations—rooted in China's lottery policy's hybrid nature and administrative hierarchy—lay the groundwork for refining Policy Cycle Theory. This leads to the second theoretical proposition:

Theoretical Proposition 2: In state-led administrative hierarchies, Policy Formulation for cross-departmental hybrid (state-market) sectors (e.g., lottery) is primarily shaped by institutional function alignment. This alignment-driven logic often results in stage merging between Policy Formulation and institutional design, where technical evaluation of policy solutions becomes secondary to ensuring regulatory agencies' mandates match overarching policy goals.

4.3 Decision-making: recursive adjustment and risk aversion

Decision-Making refers to the selection of options from the alternative policy choices identified in the Policy Formulation process to deal with public issues. The complexity of the policy sub-system and the severity of the constraints are two factors influencing decision making. China's lottery policy decisions were characterized by trial-and-error adjustments, particularly regarding sales methods:

1 1980s–2000s: At the beginning of the sale, all lottery tickets were sold in kind. Exclusive reliance on physical sales, reflecting concerns about fraud and limited regulatory capacity.
2 2007–2014: With the popularization of the Internet, lottery sales also adapted to this trend and realized online sales. From 2007 to 2012, the Internet lottery passed through four policy tests and adjustments driven by technological innovation and market demand.
3 2015–2019: As of 2015, eight ministries and commissions jointly issued the "*Announcement on Prohibiting Unauthorized Internet Lottery Sales*." These eight ministries and commissions include the Ministry of Finance, the Ministry of Public Security, the State Administration for Industry and Commerce, the Ministry of Industry and Information Technology, the Ministry of Civil Affairs, the People's Bank of China, the General Administration of Sport, and the China Banking and Insurance Regulatory Commission (CBIRC). This announcement suspended all lottery sales activities that are conducted through online channels. The reason for stopping internet lottery sales is that the chaos in internet lottery operations became prominent, with irregular practices, illegal lotteries, and other issues harming the interests of the majority of lottery purchasers. Hence, the lottery sales method was changed.
4 2020–Present: Post-COVID-19 debates on reopening online sales, with no final decision due to ongoing regulatory concerns. Currently, all lotteries in China are sold exclusively through physical outlets.

Deviation from Model Assumptions: Howlett and Ramesh's model frames Decision-Making as a one-off "selection of solutions" that concludes once a policy choice is finalized. By contrast, China's lottery policy decisions were distinctly recursive and risk-sensitive: offline sales dominated initially (1980s–2000s) due to fraud concerns; online sales were piloted (2007–2014) to meet market demand but suspended in 2015 amid irregularities; post-COVID-19 debates on reopening remain unresolved. These reversals were driven by real-time implementation feedback, blurring the theoretical boundaries between Decision-Making and Policy Evaluation—a gap in the mainstream model's linear assumptions.

These context-specific observations—rooted in the lottery's hybrid nature and China's risk-averse governance logic—lay the groundwork for refining Policy Cycle Theory's account of Decision-Making. This leads to the third theoretical proposition:

Theoretical Proposition 3: For policies in hybrid sectors involving inherent market risks (e.g., online lottery sales), Decision-Making operates as a recursive rather than one-time linear process. Adjustments to policy choices are systematically triggered by implementation outcomes and evolving risk perceptions, blurring the boundaries between Decision-Making and Policy Evaluation while balancing state-led public welfare goals with market vitality.

4.4 Policy implementation: hierarchical coordination and stakeholder incentives

Policy Implementation refers to the concrete execution of lottery policies by implementers. Seven key factors influence this stage: the specificity of the policy problem, social demands, market economy conditions, technological innovation, the political environment, government enforcement agencies, and the political power and socioeconomic resources of target groups. For China's lottery policy—characterized by state-led governance and hybrid (state-market) attributes—two of these factors exert particularly prominent influence, primarily through their core sub-dimensions: on one hand, government enforcement agencies rely on administrative hierarchy to ensure uniform policy execution; on the other hand, target group resources depend on stakeholder incentives to drive active compliance.

1 *Government enforcement agencies*: As reflected in the evolutionary stages of lottery policy, the regulatory authority for lotteries initially resided with the People's Bank of China.

After 6 years of practice and the industry's continued growth, the Ministry of Finance ultimately took over lottery supervision, optimizing the alignment between enforcement agencies and policy objectives.

2 *Target group resources*: The expressive ability and resource differences among target groups such as lottery players and physical sales outlets can affect the effectiveness of policy implementation. For example, due to their involvement in employment and local economies, feedback from physical sales outlets on policy adjustments (such as restrictions on sales channels) is more likely to be incorporated into policy optimization considerations, while the demands of ordinary lottery players are more often influenced by public opinion and petitioning channels.

3 *Social demands*: Shifts in social needs can alter approaches to problem-solving, thereby influencing government policy implementation methods. As the public's demand for public services such as education, healthcare, and elderly care increases, the direction of lottery welfare funds should be tilted toward people's livelihoods. This will then drive adjustments in policy regarding the allocation and supervision of welfare funds. For example, the recent tilt of lottery welfare funds toward rural revitalization and community elderly care projects is a reflection of responding to social needs.

Deviation from Model Assumptions: Howlett and Ramesh's model conceptualizes Policy Implementation as a technical, value-neutral process of "putting solutions into effect" (Howlett and Ramesh, 1995), downplaying the role of institutional power dynamics or stakeholder motivations. By contrast, China's lottery policy implementation was inherently political and incentive-dependent: its effectiveness relied not on technical execution alone, but on two non-technical pillars—hierarchical coordination and stakeholder incentive alignment. This deviates sharply from the model's technical focus, revealing a gap in mainstream theory regarding implementation dynamics in state-led, hybrid sectors.

These context-specific observations—rooted in the lottery's hybrid nature and China's administrative hierarchy—lay the groundwork for refining Policy Cycle Theory's account of Implementation. This leads to the fourth theoretical proposition:

Theoretical Proposition 4: In state-led governance systems for hybrid (state-market) sectors (e.g., lottery), Policy Implementation is a non-technical, incentive- and hierarchy-dependent process. Its effectiveness depends primarily on two interrelated factors: (1) top-down hierarchical coordination (ensuring uniform transmission of central policy mandates to local implementers) and (2) alignment of stakeholder incentives (matching the interests of implementers like sales outlets and target groups like lottery players with policy goals). This logic supersedes the mainstream model's focus on technical execution alone, particularly in contexts where state control coexists with market dynamics.

4.5 Policy evaluation: continuous feedback and recursive cycles

The quality of policy implementation results needs to be evaluated through a policy evaluation mechanism. Policy evaluation involves exploring the tools and goals of the implemented lottery policies. The results of the evaluation will lead to a re-examination of issues and solutions, prompting the cycle to re-enter the agenda-setting stage or other phases of the cycle, or to maintain the status quo. China's lottery policy evaluation included three key stakeholders, with feedback driving recursive adjustments:

1 *Government*: Evaluation centers on whether the implementation of lottery policies can regulate the order of the lottery market and achieve the goal of rational use of lottery public welfare funds. For example, evaluations identified gaps in online sales regulation, leading to the 2015 suspension.

2 *Lottery players*: Evaluation focuses on two aspects: one is whether the implementation of lottery policies can meet their needs such as entertainment and public welfare participation; the other is their satisfaction with the use of lottery public welfare funds.

3 *Physical sales outlets*: Evaluation assesses whether policy implementation aligns with their goal of operating profitably and whether policy enforcement is conducive to their business operations.

Post-pandemic discussion on online lottery sales has also become an important reference for policy adjustment, reflecting the dynamic nature of policy evaluation. This discussion has prompted policymakers to re-evaluate the risks and benefits of online sales, reflecting how evaluation feeds back into Agenda-Setting.

Evaluation standards and methods are tailored to specific contexts and include:

- *Administrative evaluation*: Focuses on management performance and budget systems;
- *Judicial evaluation*: Involves judicial review and the exercise of administrative discretion;
- *Political evaluation*: Incorporates feedback from the policy subsystem and public consultation.

Deviation from Model Assumptions: Howlett and Ramesh's model conceptualizes Policy Evaluation as a discrete, terminal stage—one that either validates the policy status quo or triggers a full restart of the cycle (Howlett and Ramesh, 1995). By contrast, China's lottery policy evaluation was inherently continuous and embedded across all stages: government evaluations of market order directly adjusted ongoing Policy Implementation; lottery players' feedback on public welfare fund transparency shaped future Decision-Making; and physical sales outlets' assessments of operational feasibility informed policy refinements. This blurs the model's rigid boundaries between Evaluation, Implementation, and Decision-Making—revealing a gap in mainstream theory regarding evaluation dynamics in state-led, hybrid sectors.

These context-specific observations—rooted in the lottery's hybrid nature and China's top-down governance logic—lay the groundwork for refining Policy Cycle Theory's account of Evaluation. This leads to the fifth theoretical proposition:

Theoretical Proposition 5: In state-led governance of hybrid sectors, Policy Evaluation functions as a continuous, embedded process rather than a discrete terminal stage. Evaluation feedback—from governments, target groups, and implementers—is proactively integrated into both ongoing Policy Implementation and future Decision-Making, fostering recursive policy cycles that adapt to

tensions between state public welfare goals and market dynamics while blurring traditional stage boundaries.

In summary, China's lottery policy process is a dynamic, cyclical system of governance practice (Figure 3). It begins with addressing practical problems, evolves through institutional iteration, and optimizes via multi-stakeholder evaluation. This process not only standardized the development of the lottery industry but also ensured the public welfare nature of lotteries. At the same time, it accumulated valuable experience for public policy formulation in areas involving market vitality, public interests, and risk prevention. It also provides a reference for the sustainable development of the lottery industry. Additionally, it offers a reference for the improvement of similar public policy systems in the future.

5 Key experiences of China's lottery policy and public policy implications

The evolution of China's lottery policy has yielded five key experiences that can inform the formulation and implementation of public policies.

5.1 Clarify policy goals and their priority order

A review of China's lottery policy history reveals that policies have evolved through continuous problem-solving. Initial goals focused on rectifying the lottery market and cracking down on illegal activities; subsequent goals shifted to managing lottery public welfare funds as new issues emerged with changing times. Crucially, policymakers have consistently clarified the priority order of goals, prioritizing urgent objectives and formulating policies accordingly.

This experience highlights a core principle of policy formulation: policymakers must define clear, specific goals and establish a priority order based on current realities. This clarity helps implementers understand both "what to do" and "what to do first," enhancing policy effectiveness.

5.2 Explain the rationale and role of policy measures

Article 1 of the *Lottery Management Regulations* explicitly states: "This Regulation is formulated for the purpose of strengthening lottery management, standardizing the development of the lottery market, maintaining the order of the lottery market, protecting the legitimate rights and interests of lottery participants, and promoting the development of social welfare undertakings." This provision clearly communicates the regulation's purpose to implementers.

To further guide implementation, the *Implementation Rules of the Lottery Management Regulations* have been issued to provide detailed operational guidance. Additionally, press conferences are held to interpret new policies, ensuring that implementers and the public develop a correct and in-depth understanding of policy content.

This practice demonstrates that effective policies not only specify "what to do" but also explain "why to do it"—helping implementers grasp the rationale behind measures and enhancing their willingness to comply.

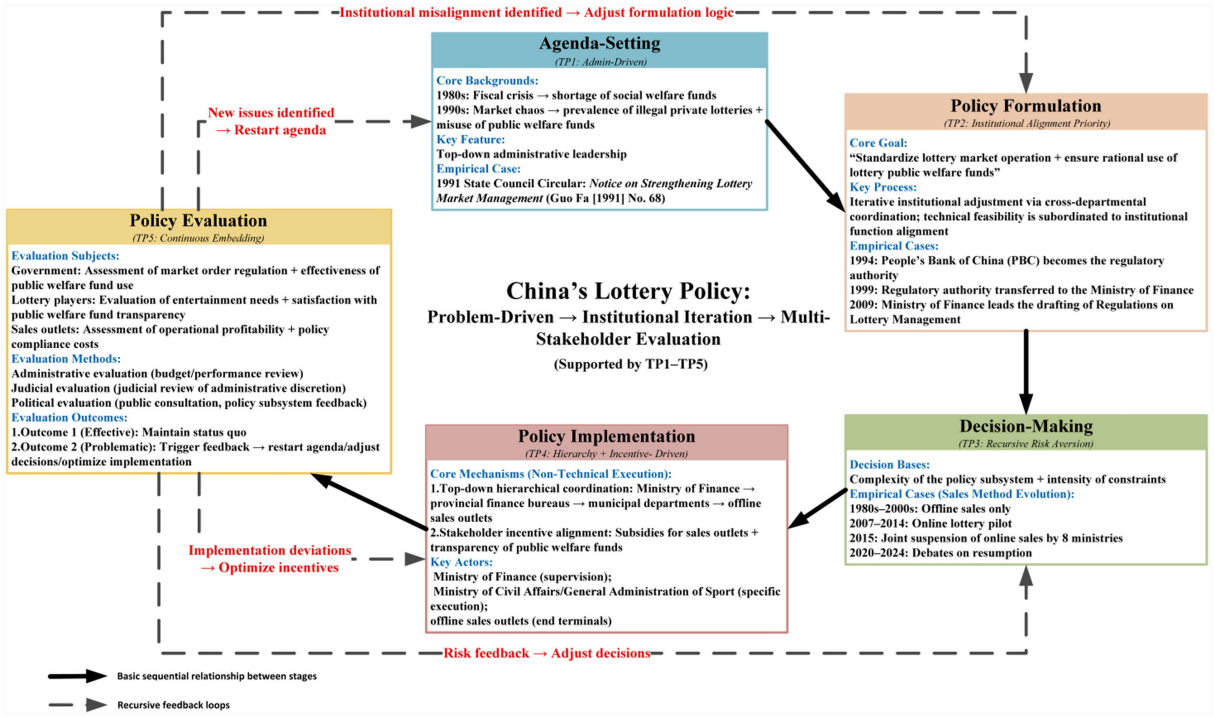

FIGURE 3
Application of policy cycle theory to analyze China's lottery policy process.

5.3 Ensure financial support for policy implementation

Practice has proven that sufficient financial resources are essential for smooth policy implementation; a lack of financial investment is a major barrier to achieving policy goals.

In China, lottery public welfare funds are divided into two parts: centrally concentrated funds and locally retained funds, each accounting for 50%. The distribution principles for locally retained funds are determined by provincial financial departments in consultation with civil affairs, sports, and other relevant departments. Additionally, the central government allocates special funds to local governments annually to support policy implementation.

This financial guarantee mechanism ensures that lottery policies have the necessary resources to achieve their objectives, laying a solid foundation for effective governance.

5.4 Provide operational procedures for implementing agencies

Clear operational procedures enable implementing agencies to follow standardized rules during policy execution, facilitating orderly implementation.

Chapters II–V of the *Measures for the Administration of Lottery Public Welfare Funds* specify detailed operational procedures for key actions (e.g., fund allocation and use) and include standardized form templates. Furthermore, the supplementary provisions stipulate that "provincial financial departments shall formulate measures for the administration of lottery public welfare funds in their administrative regions in accordance with these Measures and local realities, and report them to the Ministry of Finance for the record".

This framework not only provides uniform guidance but also grants local governments a degree of autonomy to adapt policies to regional conditions—striking a balance between standardization and flexibility.

5.5 Select competent implementing agencies

China's lottery management system, clearly defined in the *Lottery Management Regulations*, ensures that policies are implemented by professional, capable agencies:

- Lotteries are approved for issuance exclusively by the State Council;
- The Ministry of Finance is responsible for nationwide lottery supervision;
- The Ministry of Civil Affairs and the General Administration of Sport of China oversee welfare and sports lotteries, respectively, and have established dedicated lottery issuing agencies to handle nationwide issuance and sales.

This rigorous division of labor has enabled the rapid, standardized development of China's lottery industry and ensured the sector's responsible response during crises such as the COVID-19 pandemic. It underscores a key lesson: policies implemented by professional, experienced, and accountable departments are more likely to achieve their intended goals.

6 Discussion

6.1 Theoretical implications for policy cycle theory

This study's analysis of China's lottery policy evolution yields critical theoretical implications that extend the explanatory scope of mainstream Policy Cycle Theory (Howlett and Ramesh, 1995), addressing its longstanding Western-centric and linear biases by grounding extensions in the "state-led governance + hybrid (state-market) sector" context of non-Western systems. Below, we elaborate on five interrelated theoretical contributions, each tied to context-specific deviations from the model's stylized assumptions and formalized via the study's theoretical propositions (TP 1–5).

First, the study challenges the model's core assumption of discrete, sequential stage progression by identifying non-linear recursion as a defining feature of policy cycles in state-led hybrid sectors. Contrary to Howlett and Ramesh's (1995) framing of policy stages as distinct, China's lottery policy exhibited recursive dynamics where Policy Evaluation continuously fed back into both Policy Implementation and Decision-Making—blurring traditional stage boundaries. For instance, risk evaluations of online lottery sales (2014–2015) directly triggered mid-implementation adjustments and recursive decision reversals. As formalized in TP 5, this "embedded evaluation-feedback loop" is not a contextual anomaly but a systemic response to tensions inherent in hybrid sectors: state mandates for public welfare and market demands for flexibility require ongoing, cross-stage adjustments. This extends Policy Cycle Theory by specifying that hybridity amplifies non-linearity—an insight absent from models developed for either fully public or fully market sectors.

Second, the study redefines the drivers of Agenda-Setting in state-led contexts, shifting the focus from "bottom-up stakeholder pluralism" to top-down administrative steering. Mainstream theory posits that agenda priorities emerge from diverse stakeholder demands, but China's lottery policy agenda was exclusively shaped by central administrative goals: fiscal deficit relief for social welfare (1980s) and market order restoration (1990s). Local governments and non-state actors exerted minimal influence, as reflected in TP 1. This extension is theoretically significant because it identifies "central systemic priorities" as a dominant agenda driver in state-led systems—filling a gap in non-Western policy cycle research, which has long overlooked how administrative hierarchy structures agenda formation. Notably, the study also nuances this insight: while top-down steering accelerates agenda framing, it may create implementation gaps, highlighting the need for post-hoc integration of local feedback—a dynamic unaccounted for in linear models.

Third, the study reconceptualizes Policy Formulation as a process of institutional alignment rather than technical feasibility assessment. The mainstream model treats formulation as a technical exercise focused on evaluating solution viability (Howlett and Ramesh, 1995), but China's lottery policy formulation was intertwined with institutional restructuring: lottery management functions shifted from the People's Bank of China (1994) to the Ministry of Finance (1999) not for technical reasons, but to align regulatory responsibilities with

institutional mandates. As formalized in TP 2, this "stage merging" between formulation and institutional design is common in cross-departmental hybrid sectors, where administrative compatibility precedes technical optimization. This extends Policy Cycle Theory by introducing "institutional function fit" as a key variable in formulation—particularly relevant for state-led systems, where inter-ministerial coordination directly shapes policy viability.

Fourth, the study revises the model's understanding of Decision-Making by emphasizing risk aversion and recursivity over one-time rational choice. Mainstream theory frames decision-making as a single, terminal step of "solution selection" (Howlett and Ramesh, 1995), but China's lottery policy decisions were iterative and risk-sensitive. As captured in TP 3, market risks systematically triggered adjustments, reflecting the unique governance challenge of hybrid sectors: policymakers must balance market vitality with state-mandated public welfare safeguards. This theoretical extension is critical because it links decision-making dynamics to sectoral attributes—explaining why non-Western hybrid sectors exhibit more recursive decisions than either Western public sectors (driven by pluralism) or fully market sectors (driven by profit).

Fifth, the study integrates complexity theory (Jalonen, 2025) into Policy Cycle Theory by demonstrating how "multi-stakeholder interaction + administrative hierarchy" shapes cycle dynamics. The mainstream model downplays the role of institutional power and stakeholder incentives in shaping stages (Jann and Wegrich, 2006), but China's lottery policy implementation (TP 4) relied on two non-technical pillars: top-down hierarchical coordination and stakeholder incentive alignment. This extends the theory by showing that in state-led hybrid sectors, policy effectiveness depends not on technical execution alone, but on aligning administrative authority with stakeholder interests—a dynamic that complexity theory identifies as "systemic coupling" but that traditional policy cycle models ignore.

Collectively, these extensions address three key gaps in Policy Cycle Theory: (1) its neglect of non-linear dynamics in state-led contexts; (2) its failure to incorporate institutional alignment and administrative hierarchy as core variables; (3) its lack of engagement with hybrid sector attributes. By formalizing these insights into testable propositions (TP 1–5), the study provides a context-specific framework for analyzing policy cycles in non-Western, state-led systems.

6.2 Comparison with existing research

6.2.1 Similarities with existing research

6.2.1.1 Consensus on the public welfare orientation of lottery policy

Like most prior studies on China's lottery system (Yao et al., 2024; Li, 2019), this research acknowledges that lottery policy in China is fundamentally a tool for public welfare fundraising. Yao et al. (2024) emphasize that China's sports lottery operates in line with the fundamental creed of "from the people, for the people" and serves as a "strategic lever for common prosperity" by channeling funds into social welfare and sports infrastructure—an observation consistent with this study's finding that policy goals are rooted in state-led public interest mandates. Both bodies of work reject framing lotteries as mere market commodities, highlighting their institutional role in supplementing government public service funding.

6.2.1.2 Recognition of top-down administrative influence

Existing research on Chinese public policy (Xu et al., 2023; Huang and Kim, 2020) frequently notes the dominance of top-down administrative steering in policy processes—a trend echoed in this study. Huang and Kim (2020) found that when certain conditions are met, top-down mandatory requirements will become the main driving force for local governments to adopt the policy. This aligns with Theoretical Proposition 1 (TP1) of the current study, which identifies central administrative priorities (fiscal balance, market stability) as the primary driver of lottery policy agenda-setting. Both studies confirm that China's administrative hierarchy constrains non-state actors' influence, distinguishing it from Western pluralist policy dynamics.

6.2.1.3 Awareness of market risks in lottery governance

Prior analyses of China's online lottery regulation (Zhou and Zhang, 2017; Yuan, 2015) highlight challenges posed by marketization, such as illegal third-party platforms and fund mismanagement. Zhou and Zhang (2017) document how unregulated online sales in Guangdong Province disrupted market order in the 2010s—an issue central to this study's analysis of the 2015 online lottery suspension (TP3). Both the current study and existing research agree that hybrid (state-market) sectors like lottery require risk-sensitive governance, though prior work stops short of theorizing how risk perceptions shape recursive policy decisions.

6.2.2 Differences from and contributions to existing research

6.2.2.1 From descriptive analysis to theoretical dialogue

Most existing research on China's lottery policy is descriptive, focusing on empirical trends without engaging with policy process theory (Guo and Manly, 2024; Ji et al., 2024). For example, Guo and Manly (2024) explore how AI can unlock the economic potential of China's sports lottery but do not link their findings to broader policy cycle frameworks. In contrast, this study embeds China's lottery policy within Howlett and Ramesh's (1995) Policy Cycle Theory, identifying context-specific deviations and formalizing them into five testable theoretical propositions (TP1–TP5). This transforms fragmented empirical observations into a theory-driven explanation of governance dynamics—filling the "theoretical vacuum" in lottery policy research noted in the original literature review.

6.2.2.2 Integration of hybrid sector attributes into policy cycle analysis

Existing Policy Cycle Theory applications in non-Western countries (Jalonen, 2025; Blomkamp et al., 2017) rarely focus on "hybrid (state-market) sectors" like lottery, instead prioritizing fully public sectors or fully market sectors. Blomkamp et al. (2017) criticized the applicability of the traditional sequential policy cycle model through his research on policymaking in Indonesia; however, his research primarily focused on laws such as civil service laws and disability laws, which are fully public policy domains, where state control is absolute and market elements are minimal. The current

study addresses this gap by highlighting how hybridity amplifies non-linear policy dynamics: for instance, Theoretical Proposition 5 (TP5) demonstrates that Policy Evaluation becomes a continuous, cross-stage process to balance state public welfare goals and market demands. This extends Policy Cycle Theory beyond its traditional focus on discrete public or private sectors, making it more applicable to non-Western mixed governance contexts.

6.2.2.3 Unpacking non-linearity and recursively in policy stages

Mainstream Policy Cycle Theory research (Howlett and Ramesh, 1995; Jann and Wegrich, 2006) often retain linear stage assumptions, framing policy as a sequential progression (Agenda-Setting→ Formulation→ Decision-Making→ Implementation→ Evaluation). In contrast, this study identifies recursive, overlapping stages as defining features of China's lottery policy: for example, 2015 online lottery suspension decisions (TP3) were directly informed by ongoing implementation feedback and embedded evaluation, blurring boundaries between stages. This aligns with Jalonen's (2025) complexity theory perspective but goes further by linking non-linearity to specific institutional factors in hybrid sectors—providing a more concrete, context-specific extension of Policy Cycle Theory than existing work.

7 Conclusion

7.1 Core research findings

This study applies Howlett and Ramesh's Policy Cycle Theory to systematically analyze the evolution of China's lottery policy from the 1980s to 2024. It first contextualizes the policy's development by mapping its trajectory across five historical phases—from the early "Blank Stage" to the contemporary "Improvement Stage"—before identifying core divergences between China's policy practice and the linear, Western-centric assumptions of mainstream Policy Cycle Theory.

A central finding is that China's lottery policy exhibits four context-specific deviations, which are formalized into five testable theoretical propositions. First, Agenda-Setting is administrative-led (TP1): driven by central government priorities rather than bottom-up stakeholder demands. Second, Policy Formulation prioritizes institutional alignment (TP2): regulatory adjustments took precedence over technical feasibility checks. Third, the coupling of risk-averse, recursive Decision-Making (TP3), and hierarchy-incentive-driven Policy Implementation (TP4). China's lottery policy showed these stages mutually reinforce: decisions depend on implementation systems to work, while implementation feedback reshapes later decisions. TP3's recursive logic is seen in online lottery sales. This recursion relied on TP4's top-down coordination. Fourth, Policy Evaluation is continuous and embedded (TP5): feedback fed directly into implementation and decision-making, rather than acting as a discrete final step.

These propositions extend Policy Cycle Theory by highlighting non-linear dynamics in state-led governance and hybrid (state-market) sectors, addressing gaps in non-Western policy cycle research.

7.2 Theoretical and practical contributions

Theoretically, this research advances Policy Cycle Theory beyond its Western, multi-stakeholder roots by unpacking "stage merging" and administrative steering—dynamics critical to state-led systems. Empirically, it fills a void in lottery policy scholarship: prior work focused on descriptive analyses rather than theory-driven explanations, while this study integrates fragmented observations into a coherent framework for hybrid sector policy analysis. Practically, key lessons from China's experience—including clarifying policy goal priorities, assigning implementation to specialized agencies, and balancing standardization with local adaptation—offer actionable guidance for optimizing public policy in other state-led hybrid sectors.

7.3 Limitations and future research

This study has three limitations. First, its reliance on official documents and secondary data limits insights into informal stakeholder interactions; future work could incorporate semi-structured interviews with key actors. Second, the 2024 temporal cutoff excludes post-2024 developments, which could test proposition durability. Third, the focus on China restricts cross-contextual generalizability; comparative studies of state-led systems or extensions to Chinese PPP projects could refine theoretical boundaries.

Overall, this study enriches understanding of China's public policy dynamics and provides a context-specific tool for analyzing non-Western policy cycles—laying groundwork for future hybrid sector research.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

Author contributions

CL: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Writing – original draft. AW: Conceptualization, Supervision, Writing – review & editing. BL: Writing – review & editing.

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The author(s) declared that Generative AI was not used in the creation of this manuscript.

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References

Anderson, J. (1979). Public policy-making: an introduction. 2nd Edn. New York: Holt, Rinehart and Winston, 23–24.

Blomkamp, A. E., Sholikin, M. N., Nursyamsi, F., and Lewis, J. M. (2017). *Understanding policy making in Indonesia: In search of a policy cycle, no. June, 2017*. Understanding-policy-making-in-Indonesia-PSHK.

Brewer, G. D. (1974). *The policy sciences emerge: To nurture and structure a discipline*. RAND Corporation, No. 5. pp. 239–244. Available online at: https://www.jstor.org/stable/4531564 (Accessed June 20, 2025).

Dror, Y. (1968). Public policy-making Reexamined. San Francisco: Chandler Publishing Company, 163.

Editorial Committee of China Lottery Yearbook (2003). China lottery yearbook (1987–2002). Beijing: China Financial and Economic Publishing House.

Guo, Z., and Manly, N. E. (2024). Unlocking the economic potential of sports lottery in China: a knowledge-based economy perspective enhanced by artificial intelligence. *J. Knowl. Econ.* 15, 12919–12945. doi: 10.1007/s13132-023-01640-y

Howlett, M., and Ramesh, M. (1995). Studying public policy: Policy cycles and policy subsystems. Toronto: Oxford University Press, 11.

Howlett, M., Ramesh, M., and Capano, G. (2020). Policy-makers, policy-takers and policy tools: dealing with behaviourial issues in policy design. *J. Comp. Policy Anal.* 22, 487–497. doi: 10.1080/13876988.2020.1774367

Hu, Z. (2004). *The origin of charity relief in late qing dynasty and lottery in modern China*. In: Proceedings of the youth academic forum of Institute of Modern History, Chinese academy of social sciences, Beijing, China, pp. 614–633.

Huang, X., and Kim, S. E. (2020). When top-down meets bottom-up: local adoption of social policy reform in China. *Governance* 33, 343–364. doi: 10.1111/gove.12433

Jalonen, H. (2025). A complexity theory perspective on politicoadministrative systems: insights from a systematic literature review. *Int. Public Manag. J.* 28, 1–21. doi: 10.1080/10967494.2024.2333382

Jann, W., and Wegrich, K. (2006). "Theories of the policy cycle" in Handbook of public policy analysis. eds. F. Fischer, G. J. Miller and M. S. Sidney (London: CRC Press), 43–62.

Ji, Y., Qiao, D., Hao, R., Qin, R., and Xu, T. (2024). Buying a wealthy dream: determinants of rural residents' lottery purchase behavior in China. *J. Gambl. Stud.* 40, 1719–1743. doi: 10.1007/s10899-024-10286-7

Jones, C. O. (1970). An introduction to the study of public policy. Belmont, California: Wadsworth Publishing Company, 13–14.

Kingdon, J. W. (1984). Agendas, alternatives, and public policies. Boston: Little, Brown, 21.

Knill, C., and Tosun, J. (2020). Public policy: A new introduction. London, UK: Bloomsbury Publishing.

Lasswell, H. D. (1951). "The policy orientation" in The policy sciences: Recent developments in scope and method. eds. D. Lerner and H. D. Lasswell, vol. 5 (Stanford: Stanford University Press), 320–325.

Lasswell, H. D. (1971). A pre-view of policy sciences. New York: American Elsevier Publishing Company, 28.

Li, J. (2019). The study of e-business model transformation on China lottery. *Mod. Manag.* 9, 153–161. doi: 10.12677/mm.2019.91017

Li-Feng, Z. (2003). One of the earliest forms of lottery in China–a study on white pigeon tickets. *Northwest Univ. Nationlities* 3, 113–118.

Marionneau, V., and Berret, S. (2018). "Gambling for the state: the collection and redistribution of gambling proceeds in France" in Gambling policies in European welfare states: Current challenges and future prospects. eds. M. Egerer, V. Marionneau and J. Nikkinen (Cham: Springer International Publishing), 17–35.

Mazmanian, D. A., and Sabatier, P. A. (1983). Implementation and public policy. London: Scott, Foresman and Company.

Pressman, J. L., and Wildavsky, A. (1973). Implementation. Oakland, CA: University of California Press.

Sahn, A. (2025). Public comment and public policy. *Am. J. Polit. Sci.* 69, 685–700. doi: 10.1111/ajps.12900

Xu, C., Steiner, A., and De Haan, J. (2023). Does economic policy uncertainty encourage gambling? Evidence from the Chinese welfare lottery market. *SSRN Electron. J.* 1:413. doi: 10.2139/ssrn.4344413

Xuejiao, C., and Liguo, Z. (2016). *The leviathan hypothesis, fiscal decentralization and government expansion–evidence from China's lottery provincial panel data*. Review of Economy and Management. Available online at: http://dianda.cqvip.com/Qikan/Article/Detail?id=668292785 (Accessed July 15, 2025).

Yao, Y., Wan, B., Long, B., Bu, T., and Zhang, Y. (2024). In quest of China sports lottery development path to common prosperity in 2035. *PLoS One* 19:e0297629. doi: 10.1371/journal.pone.0297629

Yuan, J. (2015). Examining the gambling Behaviors of Chinese online lottery gamblers: are they rational? *J. Gambl. Stud.* 31, 573–584. doi: 10.1007/s10899-014-9443-8

Zhang, L. (2025). Betting on the civil service examinations: the lottery in late Qing China. *J. Asian Stud.* 84, 538–539. doi: 10.1215/00219118-11591279

Zhi-qiang, P. I. (2001). ZHANG Zhi-dong and "Wei Xing"of Guang Dong. *J. Guangzhou Univ.* 9, 38–41. Available online at: https://www.cnki.com.cn/Article/CJFDTotal-GZDX200109006.htm (Accessed July 17, 2025).

Zhou, L., and Zhang, J. J. (2017). Variables affecting the market demand of sport lottery sales in China: the case of Guangdong Province. *Int. J. Sports Mark. Spons.* 18, 116–136. doi: 10.1108/IJSMS-05-2016-0026