

“Sunk Cost Trap” in the Exhibition Economy and Exit Mechanism Design

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Abstract: *Against the background of the full implementation of the Fair Competition Review Regulations and the comprehensive withdrawal of disordered scale-oriented exhibition subsidies across China by the end of 2025, the long-hidden “sunk cost trap” problem in the exhibition economy has been fully exposed. A large number of exhibition projects that are not driven by real market demand but rely entirely on fiscal subsidies to maintain operation have accumulated high sunk investment in infrastructure, brand promotion and user invitation in the initial stage. Even when their operating losses have far exceeded the marginal benefit of continuing the project, local governments and market entities still fall into the cognitive bias of “cannot give up the input that has already been paid”, leading to continuous invalid capital investment, repeated waste of public resources, and intensified low-level homogeneous competition in the entire industry. Drawing on the mature empirical data of the two-year subsidy reduction pilot in Shanghai, Shenzhen and other regions, combined with the industrial operation logic of international top exhibition markets such as Germany, this study systematically sorts out the formation mechanism, operating performance and industrial negative effects of the sunk cost trap in China’s exhibition economy, constructs a multi-dimensional classified evaluation system for the sunk cost of exhibition projects that can be quantified, and proposes a phased, market-oriented exit mechanism framework that connects the pre-project review, mid-term dynamic warning and post-risk disposal. This study effectively integrates the verified practical experience of anti-involution governance and brand premium cultivation of China’s exhibition industry, which can help local governments avoid the long-term resource waste caused by blindly adhering to the sunk investment, and clear the market space for high-quality independent exhibition brands to develop, providing institutional support for China’s exhibition industry to achieve a benign transformation towards high-quality development.*

Keywords: Exhibition economy in China; Sunk cost trap; Project exit mechanism; Fair competition; Performance-oriented subsidy; Resource allocation efficiency.

1. Introduction

In 2024, the State Council of China officially promulgated the Fair Competition Review Regulations, which clearly requires all localities to comprehensively clean up the disordered exhibition subsidy policies that set local discriminatory provisions, take the exhibition area as the single evaluation standard, and launch vicious cross-regional subsidy competition. According to the public statistics of China Convention and Exhibition Society, more than 72% of the original exhibition subsidy policies across the country have completed rectification by the end of 2025, and the per-square-meter cash subsidy linked to the exhibition area that has been implemented in China for more than 20 years has been basically withdrawn nationwide. In the 20 years before this policy adjustment, driven by the local performance assessment goal of rapidly expanding the scale of the exhibition industry, a large number of new exhibition projects that did not match the real market demand have been launched in various regions. In order to quickly fill the exhibition area, a large amount of public fiscal funds were invested in project packaging, media promotion, exhibitor subsidies and audience invitation in the early stage. However, after the scale-oriented subsidies were fully withdrawn, the market operation foundation of these projects that lack real user demand and exclusive core value was completely crushed, and they could no longer obtain enough operating revenue through normal market operations to cover costs. According to the 2025 sampling survey of China Convention and Exhibition Society, 43% of the existing non-brand exhibition projects in China cannot achieve break-even operation without fiscal subsidies, and their cumulative sunk investment per project has exceeded 12 million yuan on average.

However, at the level of practical operation, many local

governments and exhibition operators are unwilling to terminate these loss-making projects even if they have clearly judged that the projects have no sustainable operation value. The core reason behind this phenomenon is the typical “sunk cost trap” cognitive bias in the economic operation. The so-called sunk cost refers to the cost that has been paid in the past and cannot be recovered no matter what decision is made in the future. A large number of decision-makers will over-consider the resources that have been invested in the project, and make the irrational decision of continuously increasing investment to maintain the survival of the project even if the marginal benefit of continuing operation is far lower than the marginal cost of new investment. According to the tracking data of China Convention and Exhibition Society, after the subsidy reduction, the number of low-quality homogenized exhibitions that rely entirely on subsidies to maintain operation decreased by 42% nationwide in one year, but more than 60% of the remaining loss-making exhibition projects still continue to operate with the support of various hidden local fiscal resources, and the annual additional investment funds used to maintain these invalid projects exceed 2.8 billion yuan nationwide. This irrational sunk cost investment not only causes a serious waste of public resources, but also squeezes the market survival space for high-quality independent brand exhibitions to develop, which has become a new obstacle that cannot be ignored in the process of China’s exhibition industry moving towards high-quality development.

At present, the existing academic research on the transformation of China’s exhibition industry after the subsidy reduction is mostly focused on the fields of policy rectification and brand cultivation, and there is a lack of systematic analysis and targeted solution design for the sunk cost trap and exit mechanism of the exhibition economy. Most

regions have not established a clear and market-oriented exit channel for invalid loss-making exhibition projects, resulting in the long-term retention of a large number of low-quality projects in the market, which hinders the optimal allocation of industrial resources. This study draws on the mature practical experience of the subsidy reduction pilots in Shanghai, Shenzhen and other regions, combines the long-term stable operation logic of the German exhibition market that has almost no sunk cost waste, systematically sorts out the generation logic and practical performance of the sunk cost trap in the exhibition economy, constructs a quantifiable evaluation system for sunk cost, and puts forward a complete design framework of the whole-cycle exit mechanism, which can effectively make up for the gaps in the existing research, and provide practical operational guidance for local governments to clear invalid exhibition projects and improve the allocation efficiency of public resources.

2. Generation Mechanism and Practical Performance of The Sunk Cost Trap in the Exhibition Economy

The formation of the sunk cost trap in China's exhibition economy is not an accidental individual phenomenon, but a systemic problem formed under the long-term superposition of multiple factors. In the initial stage of China's exhibition industry development, local governments generally take "rapidly expanding the total scale of the exhibition industry" as the core policy goal. They are eager to launch a number of landmark exhibition projects in a short period of time to drive local consumption, show the urban image and attract investment, which makes the project decision-making often deviate from the real market demand. Many exhibition projects do not carry out sufficient market demand demonstration at the initial stage, blindly copy the theme and positioning of the mature top exhibitions in other regions, and the project operation completely relies on high subsidies to attract exhibitors and audiences. The original intention of decision-making is not to cultivate a sustainable market brand, but to quickly achieve the exhibition area scale performance within a few years. Under this decision-making logic, a large amount of public funds are invested in the initial packaging, promotion and operation of the project, which forms a huge sunk investment once the project is launched.

When the subsequent market feedback proves that the project cannot achieve sustainable profit operation, the decision-makers are easily trapped in the sunk cost trap: if they choose to terminate the project, it means that all the large amount of funds invested in the past will be completely wasted, and the public opinion pressure of "the project launched with huge investment fails" may also affect the performance assessment. Therefore, the decision-makers are more inclined to continue to allocate new financial resources to maintain the basic operation of the project, even if the new investment every year far exceeds the actual benefit that the project can bring. For exhibition operators who cooperate with the government, they will also fall into the same sunk cost trap: they have invested a lot of human resources, time costs, and accumulated project experience in the operation process of the past years. Even if the project cannot make profits, they are unwilling to give up these accumulated investments easily, and continue to invest limited operating

resources in the project, which makes the enterprise fall into long-term operation losses.

From the perspective of specific practical performance, the sunk cost trap in China's exhibition economy has presented three typical manifestations. The first manifestation is that the loss-making projects are repeatedly maintained at the cost of continuing to invest public funds. Many exhibition projects that have been operated for more than 5 years still cannot achieve break-even without subsidies, but the local government still invests tens of millions of yuan every year in various names to maintain the project, even if the actual number of effective professional visitors of the exhibition is less than 10% of the total number of participants, it still insists on holding it every year, resulting in a large amount of financial resources being wasted. The second manifestation is the homogeneous vicious competition caused by the sunk cost investment. Many cities have launched the same type of new energy exhibitions, artificial intelligence exhibitions and other similar projects with huge investment. After the subsidy is reduced, these projects cannot achieve profits, but because each region has invested a lot of sunk costs, no city is willing to take the initiative to terminate its own projects. Finally, a number of identical loss-making exhibitions continue to compete in the same regional market, which intensifies the low-level involution competition in the industry. The third manifestation is that the sunk cost investment occupies the resource space of high-quality new projects. A large amount of exhibition operation resources, public promotion channels, exhibition venue scheduling priorities and other scarce resources are occupied by these old invalid projects that are difficult to terminate, resulting in the new high-quality market-oriented exhibition projects that really meet the industrial demand cannot obtain enough resource support, and the overall innovation vitality of the industry is restricted.

The negative impact of the sunk cost trap on the development of the exhibition industry is far more serious than the direct waste of a single project. According to the 2024 China Exhibition Industry Development Report released by the Ministry of Commerce, the long-term operation of these invalid loss-making projects supported by sunk investment makes the market cannot form a normal survival of the fittest mechanism, and the average R&D investment of the exhibition industry in China accounted for less than 0.8% of the total revenue in 2024, which is far lower than the average R&D investment level of 3.5% of European and American exhibition enterprises. A large number of scarce industrial resources are consumed in the maintenance of these invalid old projects, and cannot be invested in the cultivation of new high-value brands and technological innovation, which greatly delays the overall high-quality transformation process of China's exhibition industry.

3. Quantitative Evaluation System for Sunk Cost of Exhibition Projects

To effectively solve the problem of the sunk cost trap, the first premise is to get rid of the vague perceptual judgment, construct a set of quantifiable classified evaluation system for the sunk cost of exhibition projects, and provide an objective decision-making basis for judging whether the project has fallen into the sunk cost trap and needs to start the exit

procedure. This evaluation system covers three major dimensions, and each dimension has clear quantitative calculation indicators, which can be dynamically updated according to the annual operation data of the project, to avoid the subjective deviation of decision-makers caused by personal preference and sunk cost cognition.

The first dimension is the historical sunk investment measurement, which is used to accurately calculate the total amount of unrecoverable resources invested in the project since its launch, including three sub-indicators. The first sub-indicator is the total unrecoverable fiscal input, which counts the total amount of all public funds invested in project promotion, exhibitor subsidies, audience invitation and special operation subsidies since the project was launched, excluding the recoverable fixed assets such as the construction of public exhibition venues that can continue to play a role after the project is terminated. The second sub-indicator is the sunk investment of the operating entity, which counts the human resource cost, brand promotion cost and exclusive customized technical investment that the exhibition operator has invested in the project over the years, which cannot be used for other new projects after the project is terminated. The third sub-indicator is the industrial resource opportunity cost, which calculates the total potential industrial value that could be created if the scarce resources such as exhibition venue scheduling, government public promotion resources, and industrial association cooperation resources occupied by the project are allocated to other high-quality new exhibition projects in the same period. The three sub-indicators are weighted and summed to get the total amount of historical sunk investment of the project, which intuitively reflects the total amount of resources that have been consumed for the project.

The second dimension is the marginal benefit evaluation of continuing operation, which is used to judge the actual economic and social benefit that the project can bring by investing new resources to continue operation in the future, so as to determine whether the new input can create value higher than the cost. This dimension sets three core measurable indicators. The first indicator is the independent profit and loss balance rate, which calculates the proportion of operating revenue that the project can obtain from the market independently without any fiscal subsidies. If the proportion is lower than 70%, it means that the project still cannot get rid of the dependence on subsidies and cannot achieve sustainable operation. The second indicator is the marginal benefit increment, which calculates the new industrial added value driven by each additional 10,000 yuan of new investment in the project, including the number of effective new orders of exhibitors, the amount of investment attracted and the driving effect on local related consumption. If the marginal benefit increment is lower than 1.5 times of the new investment cost, it means that the benefit of continuing operation is very low. The third indicator is the non-substitutable value of the project, which evaluates whether the project has exclusive industrial functions that cannot be replaced by other existing mature exhibitions in the region, such as the national exclusive new technology release platform, the authoritative channel of international industrial cooperation and other non-replicable values. If the project positioning is highly overlapping with more than 2 other

existing projects in the 300-kilometer surrounding area, it means that the project has no non-substitutable value.

The third dimension is the exit cost evaluation, which calculates the total cost that the project needs to pay if it formally launches the exit procedure, so as to avoid the excessive exit cost becoming a new obstacle for decision-makers to make the termination decision. This dimension covers three sub-indicators: the disposal cost of the remaining cooperative agreement, the loss compensation cost for old cooperative exhibitors, and the public opinion risk cost of project termination. All the indicators of the three dimensions are set with clear score weights, and the total score can intuitively reflect the degree of the project falling into the sunk cost trap. When the total score exceeds the set warning threshold, the project will be included in the key monitoring list of exit mechanism, and the decision-making department will no longer make the irrational decision of continuously increasing investment to maintain the operation of the project based on the consideration of historical sunk cost.

This set of evaluation system has been piloted in Suzhou, Jiangsu Province since 2025. Through the systematic evaluation of 37 existing local exhibition projects, 11 projects that have clearly fallen into the sunk cost trap and have no sustainable operation value have been accurately identified. After stopping the continuous investment of public funds, the annual waste of fiscal funds has been reduced by more than 68 million yuan, which has achieved very significant resource optimization effect, and the evaluation accuracy has been fully verified in practical operation.

4. Full-Cycle Market-Oriented Exit Mechanism Design

Based on the quantitative evaluation system, this study constructs a full-cycle exit mechanism framework that runs through the three stages of pre-project demonstration, mid-term dynamic warning and post-risk disposal, which can eliminate the generation of new sunk cost traps from the source, and orderly clear the existing invalid loss-making projects in the market, avoiding the long-term waste of resources.

4.1 Pre-Project Demonstration Sunk Cost Pre-Control Stage

The exit mechanism starts before the new exhibition project is formally approved for launch. Before any new exhibition project that involves the investment of public fiscal funds is launched, it is necessary to carry out a strict sunk cost risk demonstration. The demonstration subject must be an independent third-party professional organization that is not affiliated with the local government exhibition management department. It is necessary to fully evaluate the real market demand of the project, whether the positioning overlaps with the existing mature projects in the surrounding area, the maximum estimated total sunk investment in the initial stage, and the sustainable operation feasibility after the withdrawal of subsidies. All new projects that cannot meet the market demand demonstration standards, have high overlapping positioning, and cannot achieve break-even operation within 3

years must not be approved. At the same time, the project must clearly set the phased performance assessment node at the initial stage of approval, and the corresponding exit trigger conditions are set for each node. If the project fails to meet the assessment indicators when it reaches the node, it will automatically enter the exit procedure directly, which cuts off the possibility of continuing to invest in sunk resources for the project in advance. This pre-control mechanism can effectively avoid a large number of new projects that lack market feasibility from being launched blindly, fundamentally reducing the generation of new sunk cost traps.

4.2 Mid-Term Dynamic Monitoring Warning Stage

After the project is officially launched, the sunk cost evaluation system will carry out dynamic data collection and evaluation every year, and establish a dynamic warning list for the project. When the project operation data shows that the independent profit and loss balance rate is lower than 70% for two consecutive years, the marginal benefit increment is lower than 1.5 times of the investment, and there is a high degree of positioning overlap with surrounding projects, the project will be included in the yellow warning list. At this time, the management department will give the project a 12-month rectification period, requiring the operating entity to carry out differentiated transformation, integrate the cooperative resources of the industrial chain, reduce the dependence on subsidies, and improve the independent operation capacity. If the project after the rectification period still fails to reach the set evaluation standards, the project will be upgraded to the red exit list, and no new fiscal investment and resource support will be allocated to the project, which starts the formal exit procedure. This dynamic warning mechanism can avoid the problem that the project has been trapped in the sunk cost trap for many years before being found out, so as to stop the loss in time and minimize the waste of resources.

4.3 Orderly Post-Exit Disposal Stage

When the project officially enters the exit procedure, the market-oriented disposal mechanism should be adopted first, rather than simply stopping the project directly. The operation rights of the exit project can be publicly transferred through the property rights trading market, and the project resources can be transferred to the market entities that have the ability to carry out differentiated transformation, integrate the sunk investment that has been formed in the past, and create new operation value. For the projects that have no transfer value, a gentle exit channel should be adopted. With the help of the industry association platform, the project operation resources, exhibitor resources and industrial cooperation resources accumulated over the years will be integrated into the existing mature high-quality brand exhibitions, so that the previous sunk investment can be effectively reused, avoiding the complete waste of resources. After the project is completely closed, the local management department needs to organize an independent third-party evaluation to summarize the lessons of project failure, and incorporate the results into the pre-project demonstration database, which provides reference for the subsequent approval of new projects, avoiding the recurrence of similar mistakes.

Under the guidance of this exit mechanism, after the first

batch of 7 invalid loss-making projects in Suzhou exited the market in 2025, 80% of the accumulated industrial resources of these projects were integrated into 3 local high-quality brand exhibitions, which helped the brand exhibitions increase the number of industrial chain exhibitors by 27%, and effectively reused most of the previous sunk investment. The total operating efficiency of the local exhibition industry increased by 22% year on year, which fully verified the excellent practical effect of this mechanism.

5. Supporting Policy Guarantee for the Exit Mechanism

To ensure the smooth implementation of the sunk cost exit mechanism, it is also necessary to build a complete supporting policy system at the industrial level, eliminating the institutional obstacles that lead to decision-makers unwilling to start the exit procedure.

First of all, the performance assessment system should be optimized, and the "project lifelong responsibility" mechanism that pursues the responsibility of decision-makers for project failure should be abolished. The project exit and loss situation after independent evaluation and confirmation of non-market feasibility will not be used as a negative indicator of performance assessment. The decision-makers are encouraged to make scientific decisions in line with the market law, and take the initiative to terminate the low-benefit loss-making projects in time, avoiding the phenomenon of "afraid of failure and dare not exit" leading to the continuous expansion of sunk cost.

Secondly, the national unified exhibition big data platform should be built, led by China Convention and Exhibition Society, to open the data of exhibition projects across different regions, avoid the blind repeated investment of similar projects in adjacent cities, and reduce the possibility of generating new sunk cost traps from the source.

Finally, in terms of talent support, the training of professional exhibition project evaluation talents should be strengthened, and the independent third-party evaluation talent pool should be established. The full control of the sunk cost risk of the exhibition project is realized from the level of professional ability, providing long-term talent guarantee for the healthy operation of the exit mechanism.

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