

Effectiveness of Punishment and Operating Subsidy in Supervision of China's Pension PPP Projects

Access to new resource related to PPP projects added to PMWL



Resource provided by [Diana Serikbay](#)

26 June 2022 – Almaty, Kazakhstan – Access to a new resource has been added to the PM World Library (PMWL) related to Public Private Partnerships (PPPs). The new resource is titled “**Effectiveness of Punishment and Operating Subsidy in Supervision of China's Pension PPP Projects: An Evolutionary Game and Simulation**” and is a paper by Xianghua Yue and Yuming Li published in the Journal of Mathematical Problems in Engineering in November 2019.

In this article, the authors discuss the relevance of factors such as "punishment" and "subsidy" to address the quality of service provided by private investors in PPPs and control by government regulators. This problem is solved by introducing a mathematical quantitative point of view - evolutionary game theory. In this game, the participants are limited in rationality and the supervision of the quality of the provided pension PPP services can be considered as a dynamic evolutionary process.

The conclusions reflect the equilibrium choice of strategies for the behavior of pension PPP players. To analyze game relations and the evolutionary impact of evolutionary equilibrium strategies, the authors used MATLAB simulations. As a result of the analysis, operational methods are proposed to improve the quality of pension PPP services and state supervision. The "operating subsidy" has been identified as a key factor influencing government regulation strategies. Active state control and tougher penalties will deter investors from violating the rules. Therefore, the authors recommend that the government optimize the oversight mechanism.

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For PMWL Post

Yue, X. and Lin, Y. (2019). **Effectiveness of Punishment and Operating Subsidy in Supervision of China's Pension PPP Projects: An Evolutionary Game and Simulation.** *Mathematical Problems in Engineering*, November, Journal Article ID 9641429, 12 pages. Available online at <https://www.hindawi.com/journals/mpe/2019/9641429/> ([Serikbay](#))

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