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## ИМПЛЕМЕНТАЦИЯ ТЕХНИК ПРОЕКТНОГО ФИНАНСИРОВАНИЯ НА ОТЧЕСТВЕННОМ РЫНКЕ И ЗАРУБЕЖОМ

Аннотация: Проектное финансирование считается одним из ключевых инвестиционных механик для целей поддержки долгосрочных стратегических целей экономики и общего экономического роста. В тоже время, его сложная структура и присутствие продвинутых финансовых компонентов требует глубокого понимания всех элементов и их взаимосвязей. Необоснованная уверенность и несвоевременные решения могут значительно увеличить долю риска, связанный с негативными событиями в виде непредвиденных затруднений и продолжительных задержек. В связи с этим, настоящая статья старается ответить на обе названные проблемы, раскрыв основные понятие и предоставив несколько примеров

Ключевые слова: проектное финансирование, инфраструктура, 21 век

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## IMPLEMENTATION OF PROJECT FINANCE TECHNIQUES ON DOMESTIC MARKET AND ABROAD

Annotation: The project finance is considered as one of the key investment mechanisms in the task of supporting long-term goals of the economy and general economic growth. Yet its complex structure and presence of advanced financial arrangements requires profound understanding of these components and their interconnections. Unfounded confidence and ill-timed decisions might put a considerable degree of risk, associated with adverse externalities, unanticipated challenges and prolonged delays. In this regard, this article strives to address both mentioned sides of project finance.

Keywords: project finance, infrastructure, project, 21st century

To introduce the topic, it is essential to define the term, which is at the core of this paper. So, one potential definition of project finance might be as follows: project finance presents itself as complex financial arrangement, which is characterized as high-denomination debt-intense funding scheme with no or limited recourse to the borrower (investor), utilized in relation to large capital-intense infrastructure or similar construction or modernization projects.

Person acquainted with commercial loans might spot several structural difference between the named form of funding and project finance: the former usually requires collateral or other form of security and usually assumes going concern for the borrower, while the project finance from the commencement of the project limits itself exclusively with cash flows of the project company and implies definite project lifetime.

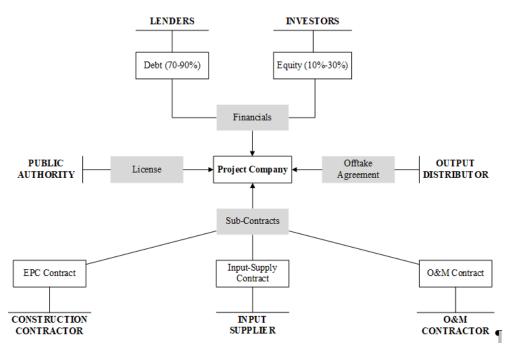
Since the terminology is defined, it is natural to start the elaboration from the time, when the project finance appeared the first time and gradually progress to the current days

One of the first well-described transaction, which is customary referred to as project finance, occurred in 1299 in the United Kingdom. The Crown entered a lending arrangement to finance exploration and further development of silver quarry in Devon region.<sup>1</sup> Curiously, in place of conventual debt repayment option, the

<sup>&</sup>lt;sup>1</sup> Yergin, D. The Prize: the Epic Quest for Oil, Money & Power / D. Yergin. — Paperback ed. — New York, NY: Free Press, 2009. — p. 60.

Crown gave the lender a one-year mining lease, which made him an entitled person in regard to a portion of ore, produced on the mentioned asset. The agreement was crafted in a manner to provide no basis for recourse to the borrower itself. In history of Russian commerce and trade, the same instrument was employed by one of the banks, which gave debt financing to Nobel brothers for an oil project in the Russian Empire.<sup>2</sup>

Given presence of certain number of area-specific concepts, Pic. 1 presents the illustrative formulation of project finance arrangement in power and utilities sector, customary for the end of the  $20^{th}$  century



Pic. 1. Illustrative scheme of project finance<sup>4</sup>

At the center of the project financing is a project company, which is special purpose firm, founded for purpose of executing a specific project. The project economic environment generally is subdivided into following categories: purely commercial venture and private-public partnership initiative. The special purpose

<sup>&</sup>lt;sup>2</sup> Estache, A. The Rise, the Fall, and . . . the Emerging Recovery of Project Finance in Transport. / A. Estache, J. Strong. — Text: electronic. — Washington, DC: World Bank, 2000. — URL: <a href="https://doi.org/10.1596/1813-9450-2385">https://doi.org/10.1596/1813-9450-2385</a> (accessed on: October 21, 2025)

<sup>&</sup>lt;sup>3</sup> A Guide to the Project Finance. — Text: electronic. // Dentos [website]. — 2018. — p. 12. — URL: <a href="https://www.dentons.com/en/insights/guides-reports-and-whitepapers/2013/april/1/a-guide-to-project-finance">https://www.dentons.com/en/insights/guides-reports-and-whitepapers/2013/april/1/a-guide-to-project-finance</a> (accessed on: October 21, 2025)

<sup>&</sup>lt;sup>4</sup> Project Finance 101 – the Cornerstone of Infrastructure. — Text: electronic. // Bocconi Student Investment Club [website]. — 2020. — p. 1. — URL: <a href="https://bsic.it/wp-content/uploads/2020/12/Project-finance.docx.pdf">https://bsic.it/wp-content/uploads/2020/12/Project-finance.docx.pdf</a> (accessed on: October 21, 2025)

firm might finance its operations in 2 ways: debt, which takes form of loans, bonds, and other interest-bearing arrangements, or equity from the investors or co-investors, who are to oversee the project and are the most interested parties regarding successful operation of the project. If the project is subject to mandatory regulatory approval, the government and its bodies (agencies) are most certain to be present in a project as a stakeholder concerning issuing of approvals (permits, licenses and other).

Given the idea that project finance is usually about high-denomination deal where many parties put their effort and time into, the risk of losing market for supply of the goods is not an option that one usually tolerate. As a mitigant, project company engages and concludes a legally-binding offtake agreement with an offtaking company (offtaker), which is to purchase the certain pre-defined volume of goods (services), supplied by the project company

Professional construction companies are hired to design the installation and conduct construction on-site works, usually under DPC (Design, procure, construct) framework, which provides a certain degree of "assurance" to the project company and mitigates cost overruns and project delays risks.

As the illustrated formulation relates to power and utilities sector, at the commencement of the project and during its operations the project company should have a reasonable level of comfort in terms of volume of feedstock it will have to eliminate or minimize delays and losses. Thus, the project company concludes input-supply agreement with raw material suppliers, which remains in force for prolonged period of time.

Ultimately, the oversight over the constructed facility might be given to specialized management company, which will possess a vast experience and expertise in administration of similar facilities, Hence, the project company and O&M contractor enters into O&M (operation and management) agreement for the supply of corresponding services.

One of the most well-covered projects within project financing topic is construction and operation of ongoing 811 km toll road called M-12 "Vostok", initiated under international route "Europe – West China" program. Overall cost of

the project was recently budgeted at 901.5 bln RUB, from which 657.8 bln RUB to be sourced from state-backed financing, 150 bln RUB – from federal investment fund, and the remainder via 10.65% project bond issuance. In December 2023, a part of road to Kazan city was commercially operational.

M-11 "Neva" 669km toll road, representing a realized transportation project and connecting Moscow and St' Petersburg cities. Total required funding for the project was estimated at 520 bln RUB, 360 RUB bln of which were provided in state-backed funding, 29.6 bln RUB – in debt financing by Russian leading financial institutions, 23 bln RUB – by federal investment fund, and the remainder sourced via project bond issuance. The project was carried out under private-public partnership framework with concession agreement elapsing in the year 2041, when the infrastructure shall be returned to the state entity. During construction period project faced several challenges, including delays associated with land allotment and ecological concerns.<sup>5</sup>

For foreign activity, authors suggest to observe Japanese market of tunnels for their importance to the country's economic development.

Japan is a small island country hosting more than 130 million of people. Given the scarcity of land and overpopulation of cities, most of infrastructure is built beneath the ground. Considering scattered nature of cities in the country and mountainous landscape, adoption of transportation model, which relies on underground tunnels, becomes self-evident solution for the country. In Japan, given large budget deficit and significant debt burden (more than 200% of the GDP) and considering utilization of close to 11,000 tunnels (27% with half-century economic life) as of 2023, the role of PPP and project finance has gained traction as a potential way to remedy the economic situation and restore financial fiscal soundness.<sup>6</sup> For now, funding sources for tunnel projects predominantly comprise government funding, which come from local, prefectural or national budgets, while major projects

<sup>&</sup>lt;sup>5</sup> Samokhvalov, I. O. Problems of Identifying Risks in Infrastructure Projects with State Participation. / I. O. Samokhvalov, V. V. Glukhov, I. A. Babkin. — Text: electronic // Èkonomika i Upravlenie. — 2021. — Iss. 27. — p. 448-462. — URL: <a href="https://doi.org/10.35854/1998-1627-2021-6-448-462">https://doi.org/10.35854/1998-1627-2021-6-448-462</a> (accessed on: October 21, 2025)

<sup>&</sup>lt;sup>6</sup> Fukuda, Y. Economic Analysis of Public-Private Partnerships in Japan: Theoretical and Empirical Analyses Focusing on Adverse Selection and Synergy Effect. /Y. Fukuda, J. Nakamura. // Policy Research Institute (Ministry of Finance, Japan). — 2021. — Iss. 17. — p. 1–27.

are eligible for funding from Ministry of Land, Infrastructure, Transportation and Tourism. Still, many projects employ PPP framework in structuring business arrangements with private sector partners. Another source of funding comes from proceeds, gained via issuance of bonds and receipt of loans from various financial institutions (e.g. Japan Finance Corporation), eager to participate in the project) and local governments. Given that the project is part of larger toll road initiative, tolls received from operating parts of the road might be used to finance construction works for the tunnel. Ultimately the funding can be sources from international organization, given the project demonstrates the sufficient level of significance.

## **Conclusion:**

In conclusion, analyzed material allows to conclude that project finance is viewed as complex financial arrangement, primary utilized for financing of large-scale infrastructure projects through primary debt-related sources. Since the first usage in 13<sup>th</sup> century, the funding mechanism evolved to encompass complicated financial agreements, multiple parties and different risk management instruments. In the 21<sup>st</sup> century, the project conventionally involves multiple actors, each playing significant role and contributing to project successful completion or operation.

Exploration of Russian and Japan experience illustrates that project finance can be employed in line with private-partnership scheme for large-scale projects, yielding curious outcomes. Still, the realization of this potential is sometimes determined by unforeseeable externalities, largely disconnected from financial and economic fields

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