Project infrastructure bonds as a tool for the PPP projects’ additional financing in the healthcare facilities’ construction

E N Sidorenko*, V A Semiglazova
Don State Technical University, 1, Gagarin sq., Rostov-on-Don, 344000, Russia
E-mail: ataka_s11@mail.ru

Abstract. The article discusses the possibilities of using the additional sources of financing in the construction and operation of infrastructure health facilities in the framework of public-private partnership agreements. The specificity of infrastructure bonds as a form of investment in the infrastructure facilities’ creation in the health sector is clarified.

It is proposed to expand the list of PPPs in the healthcare sector by means of the non-concession models. In concessions, there are a number of restrictions removed in the application of non-concessive PPPs. Therefore, the project bonds should be separated from the concession bonds. The project bonds’ liquidity is determined by collateral, which can be the government guarantees, future cash income, real estate created. It is important to legally link the use of project bonds and the issuance of state guarantees in the long term, developing the institution of the rights’ pledge to claim the future cash payments.

Introduction
In modern conditions, the state’s responsibility for the quality of social services, primarily in the field of healthcare, is growing. However, predominantly budget financing has its limits, in addition, does not comply with the basic principles of a market economy. We are talking about replacing the budget financing with extrabudgetary (insurance and private) in the framework of various forms of public-private partnership (PPP).

In public health in Russia, public-private partnerships are already quite common. It is designed to expand the accessibility and improve the quality of medical care; reduce capital costs through the advanced technologies’ use; increase the efficiency of using infrastructure facilities, etc.

As part of the ongoing health care reform, a serious problem related to the need for a massive update of the material and technical base of medical institutions has been identified. This is where the substantial investments are needed. In this regard, it became clear that the small municipal PPP agreements are not able to ensure the implementation of these tasks. Large regional-level investment projects are needed, attracting the significant investment. It is important that these could be the predominantly private investments, i.e. it is necessary to diversify the investment sources.

Infrastructure bonds, which are issued by a specialized design company to attract the financial resources for financing the construction and (or) reconstruction of infrastructure facilities, are widely used as the additional instruments for financing the projects in social sectors in world practice.
Legislatively, the mechanism of debt obligations in the Russian Federation has not been fully formed, especially in the field of non-concession PPP agreements. In this regard, the study of the prospects for the widespread use of this financial instrument in Russian practice seems very timely. This problem is being actively developed by the scientific community. Braille R., Lukasevich I.Ya., Myers S., Polyak G.B. found out the methodological foundations of financing the PPP projects, exploring the theory of state and corporate finance, analyzing the theoretical aspects of financial management [1, 2, 3].

Delmon J., Zavyalova EB, Tkachenko MV, Sidorenko E.N. et.al. are engaged in a comparative analysis of investments’ return mechanism financial models in healthcare in general and within the framework of public-private partnership agreements [4, 5, 6].

Kalinin N.V., Medvedeva T.V., Romitsyna G.A., Khulukshinov D.E. consider the possibility of introducing infrastructure bonds and other payment instruments in the domestic practice of PPP relations in social sectors. [7, 8]. Despite a high degree of the financing healthcare systems’ issue study in the framework of PPP, this problem requires a deeper analysis and generalization, in relation to modern Russian realities. The development of infrastructure bonds will reduce the burden on budgets of various levels, creating the effective long-term investment mechanisms for the non-state institutional investors.

Material and methods
The purpose of this article is to study the prospects for the project bonds’ use as an additional financing tool in the non-concession PPP projects when creating the healthcare facilities.

To achieve this goal, the following tasks should be considered:
- to find out the features of infrastructure bonds as a source of financing the construction of large facilities in the framework of public-private partnership;
- substantiation of the need for wider use of debt instruments in PPP agreements when creating the infrastructure facilities in the healthcare sector;
- identify the limitations of the practice using the concession bonds, develop the recommendations for the widespread implementation of the project bonds in PPP agreements in the field of healthcare.

The theoretical and methodological basis of the study was the work of domestic and foreign scientists in the field of project financing, investment analysis, dedicated to the PPP mechanism features when creating the socially significant infrastructure objects, clarifying the specifics of financing the PPP projects through various financial instruments. The information base of the study was composed on the analytical reviews of the National Center for Public-Private Partnerships, national statistics, the website of the VIS group of companies.

The article used the methods of systematic and comparative analysis, an integrated approach, put forward a hypothesis that in the healthcare sector, which is characterized by low commercial attractiveness, it is advisable to use the project bonds as a part of non-concessional PPPs. When comparing the concession and project bonds, the specialists’ estimates from the National Center for Public-Private Partnership and the Expert Council on the Long-Term Investment Market under the Bank of Russia were used [9].

Results and discussions
Infrastructure bonds in Russia are not clearly defined by law. This is a type of corporate bond issued by a private investor or a specialized design organization to attract the financial resources in the construction (modernization) of an infrastructure facility. The draft Federal Law “On the Features of Investing in Infrastructure Using Infrastructure Bonds”, developed by the Expert Council on Public-Private Partnership Legislation of the State Duma Committee on Economic Policy and Entrepreneurship, proposes to define infrastructure bonds as debt securities issued by a specialized design organization, aimed at attracting the funds intended to finance the creation, reconstruction and (or) operation of infrastructure.
Since infrastructure bonds will be issued to finance a specific infrastructure project, a private investor will bear only the risks of a particular project, and not all of the corporate risks of the borrower. In world practice, the circulation of these bonds is sufficiently regulated and widely used [10, 11].

The traditional option of issuing and using the infrastructural bonds looks simplified like this. To implement a PPP project by agreement of a public partner and a private investor, a specialized design organization (SDO) is created that closes all the incoming cash flows of a private partner, which issues the bonds secured by these flows and future income of the investor.

The funds from the sale of these bonds are allocated for the implementation of the project. A specialized design organization is called upon to provide an additional protection to the investors by prohibiting the organization from engaging in the activities not related to the project. Due to this, the project risks are localized, and the occurrence of other risks not related to the main agreement is excluded.

Protection is also created by applying a direct agreement in PPP projects. In the relationship between the private and public side, a new participant arises - the funding organization. A direct agreement establishes the rights, obligations and responsibilities of the parties and links the execution of the concession or PPP agreement with the implementation of the financing agreement.

In a direct agreement, the rights of a private investor are used as a pledged item when securing the creditors’ claims. Such a pledge makes it possible to attract funds to a PPP project by providing the lenders to secure their rights to future cash flow from the consumers or the public side (depending on the characteristics of the PPP project). In this case, not only a bank loan, but also a bond loan can be secured by a pledge of claim rights. A pledge of the rights of a private partner in a bank account is also a universal legal instrument and, as a rule, is used in conjunction with a pledge of claims.

This additional guarantee allows the lender to constantly monitor the debtor’s expenses. If misuse of funds or a long delay in the implementation of a PPP project is discovered, the lender can count on collecting the pledged rights in the bank account and getting the money on it [9, p. 57-66].

In Russia, the practice of debt financing is represented mainly by concession bonds, since the concessions prevail in the forms of partnership between the state and business. There is already positive experience in using the concession bonds in investing in infrastructure projects involving non-governmental pension funds and other institutional investors.

In Russia in 2018, 33 issues of bonds of 13 issuers of concessionaires in the amount of 100.9 billion rubles were registered. Of these, 28 issues of concession bonds of 11 issuers in the amount of 78.4 billion rubles are traded on the stock exchange. Two issues of series 01 of JSC “Main Road” in the amount of 0.3 billion rubles and the class “B” Highway of Two Capitals LLC in the amount of 11.250 billion rubles were repaid [12, p. 18].

It is proposed to expand the list of PPP options in the healthcare sector by means of the non-concession models. Thus, it is possible to expand the conditions for connecting the private investors to such agreements. So, in a concession, the created object cannot act as a pledge of debt obligations, with PPP it is possible, this reduces the investment risks. The conclusion of a concession agreement is impossible without a tender; in a PPP contract can be concluded if there is one investor, his initiative can become decisive. Infrastructure projects in healthcare are not highly profitable, so the initiative of a large investor to work in this area should be supported in every possible way (Figure 1).

Therefore, it is important to disseminate the practice of non-concessive PPPs here. For such partnerships, debt financing should be slightly different. Project bonds should be distinguished from the debt instruments, separating them from the concession bonds. The concession bonds are issued to finance state property, which, in accordance with the Federal Law on Concessions, cannot under any circumstances become the property of a concessionaire [13].
Figure 1. Comparison of the procedure for concluding a concession agreement (CA) and a PPP (PPP) agreement compiled by the authors based on the data [12].

Project bonds with a dominant share of private partner investments under PPP / MPP agreements may have the created such infrastructure facility as collateral, which will then be redeemed by the public partner [14].

This provision can be an attractive addition to form the basis of collateral for these bonds. The liquidity of project bonds is determined by collateral, which can be the government guarantees, future cash income, created real estate.

In public health, when implementing the PPP projects, the following models of return on the investment are in effect: direct payment by the public side after the functioning of the established medical institution; payment from the consumer for the provision of medical and other services in a healthcare organization; mixed model.

These payments and the created object, subject to compulsory sale by the state at a predetermined price, can act as collateral not only for credit resources, but also for the bond loans. True, so far this contradicts the procedure for providing the state guarantees in accordance with the Budget Code of the Russian Federation. The guarantees are provided for the planning period, usually for a year. In this regard, it is impossible to provide guarantees for such a long-term instrument as infrastructure bonds, and also to use the recourse mechanism to reimburse the private party for the amounts previously paid by the public partner for the obligations. Therefore, it is necessary to legislatively link the project bonds’ use and the issuance of state guarantees in the long term, developing the institution of the rights’ pledge to claim the future cash payments.

Municipal authorities cannot issue state guarantees, therefore municipal projects are not suitable for using such agreements. Municipal projects can be combined into a large pool, giving them the regional status. Otherwise, the reimbursement of investments of a private participant will depend on the state of municipal budgets, which are not yet able to provide all obligations, and even in the long run.

All this is important to consider in order to reduce the risks of implementing PPP agreements. Despite the gaps in the legislative design of project bonds, the practice of their use already exists. Similar bonds appeared on the securities market in 2017, when the first bond issue was registered by the Moscow Exchange. They were issued by the VIS group, the first company in Russia to place the project bonds in the amount of 4 billion rubles as a part of a non-concession PPP project. The issue was carried out in 2 stages with the aim of refinancing the funds raised for the implementation of the public-private partnership project in the Yamalo-Nenets Autonomous Okrug. Funds from the loan were intended to finance the design, construction, equipment and technical operation of objects of educational institutions (network of kindergartens). Theissuer was VIS Development LLC.
In October 2017, the first placement of exchange bonds of the BO-01 series in the amount of 1.7 billion rubles took place, in December - the second placement of bonds of the 01 series with collateralized monetary claims in the amount of 2.3 billion rubles.

The VIS Group established the Seventh Concession Company LLC, which concluded a public-private partnership agreement with the Government of the Novosibirsk Region on the construction of 7 clinics with a capacity of more than 6.5 thousand visits per shift. The seventh concession company has committed to attract 80% of the private investment. The construction and technical equipment of the facilities created will cost 7.8 billion rubles. Own funds of the group of companies in the project will amount to 1.6 billion rubles, the rest – to the borrowed funds. The Novosibirsk project will be the first major PPP project in the Russian healthcare sector, structured under federal law on PPP No. 224-FL.

This PPP agreement is not typical, it is rather a unique project with large-scale financing. The regional government has already come up with a proposal to the federal government to include the project in the federal Healthcare program. But it can become a platform for working out many of the innovations that the non-concession partnership mechanism needs, including the use of project bonds.

The seventh concession company carries out all project work (design, construction, operation), and the direct payment of the regional authorities is used as a model for the return on investment. The PPP agreement provides for the payment of a capital grant (1.6 billion rubles) after the completion of the construction phase in 2021, quarterly payments as operating expenses (580 million rubles) during the operational phase in 2022-2029; quarterly investment payment for ensuring the return of borrowed funds and its investments (1 billion rubles); rent from the regional and city health facilities operating the constructed buildings of polyclinics [15].

These payments act as collateral for the possible bond loans. True, so far this contradicts the procedure for providing state guarantees in accordance with the Budget Code of the Russian Federation. Guarantees are provided for the planning period, usually for a year. In this regard, it is impossible to provide guarantees for such a long-term instrument as infrastructure bonds, and also to use the recourse mechanism to reimburse the private party for the amounts previously paid by the guarantor to the public partner for the obligations. It is important to legally link the use of project bonds and the issuance of state guarantees in the long term, developing the institution of the rights’ pledge to claim the future cash payments. This problem can be overcome by involving the National Fund and the regional development institutions in the implementation of such projects.

Let us consider this using the example of raising funds from the National Fund. Since the proposed PPP projects in healthcare are quite large, they fall under the criteria for the rules for using the funds of the National Fund (Figure 2).

As a result of a tripartite agreement between the private, public parties and the specialized design organization, a decision is made to issue the project bonds for 3-5 years, depending on the timing of the infrastructure facility’s construction completion. These bonds are acquired by the National Fund, and the government guarantees act as collateral. In three to five years, the private party repays them, having received a state grant from the government for the creation of an infrastructure facility. The funds are returned to the National Fund.

![Figure 2. The mechanism of the bonds’ circulation taking into account the activities of the National Fund (compiled by the authors)](image-url)
Regional development institutions can also act to provide support for the project at the most costly and risky stage of the project. Support from these institutions may stimulate other investors to finance the project already at the operational stage. Project bonds can also become a refinancing instrument secured by state payments at the facility operation stage.

Thus, project bonds can partially replace credit financing, expanding the investment sources, and reduce the risks of construction and operation at the healthcare facilities.

Summary
The need for technological modernization of the material and technical base of the healthcare institutions led to the public-private partnerships’ involvement in the healthcare sector. It became clear that only large projects endowed with the state guarantees can solve this problem. We are talking about the future income of the investor, which the authorities guarantee.

Under these future incomes, the infrastructure bonds can be issued to attract the financial resources in financing construction and (or) reconstruction of an infrastructure.

Infrastructure bonds in Russia are not clearly defined by law. This is a type of corporate bond issued by a private investor or a specialized design organization to attract the financial resources in the construction (modernization) of an infrastructure facility. The expert council on public-private partnership legislation, developing a draft federal law “On the features of investing in infrastructure using infrastructure bonds”, proposed to separate them from the corporate securities, linking exclusively to the implementation of a specific infrastructure project.

In world practice, the following features of such securities are distinguished:
- long circulation period (average 15–20 years);
- the main type of collateral is state guarantees (guarantees, guarantees of “quasi-state” institutions, such as the development banks, specialized agencies, financial organizations and others) and the rights’ pledge under project agreements;
- payment of infrastructure bond income is provided by the income of the organization issuing them;
- The structure of infrastructure bond is characterized by a complex composition of investors (pension funds, development banks and commercial banks, investment and insurance funds, government bodies);
- issue of infrastructure bonds is carried out mainly within the framework of the PPP mechanism or the concession mechanism’s implementation;

The circulation of infrastructure bonds looks like this. To implement a PPP project, by agreement of a public partner and a private investor, a specialized design organization (SDO) is created that issues the bonds with the investor’s future earnings.

The funds from the sale of these bonds are allocated for the project’s implementation. The specialized design organization is called upon to provide the additional protection to the investors by prohibiting the organization from engaging in the activities not related to the project. Due to this, the project risks are localized, and the occurrence of other risks not related to the main agreement is excluded.

It is proposed to expand the list of PPPs in the healthcare sector through the non-concession models, expanding the potential investors’ list. In concessions, there are a number of restrictions that are removed in the application of non-concession PPPs.

Therefore, the project bonds should be separated from the concession bonds. The liquidity of the project bonds is determined by collateral, which can be government guarantees, future cash income, created real estate.

It is important to legally link the use of project bonds and the issuance of state guarantees in the long term, developing the institution of the rights’ pledge to claim the future cash payments. This problem can be overcome by involving the National Fund and regional development institutions in the implementation of such projects.
Support from these institutions may stimulate other investors to finance the project already at the operational stage. Project bonds can also become a refinancing instrument, secured by state payments at the stage of operation of the facility.

References
[1] Braille R, Myers S 2010 Principles of Corporate Finance (Olympus-Business, Moscow) 1008.
[2] Lukasevich I Ya 2017 Investments ( INFRA-M, Moscow) 413.
[3] Polyak G B et al. 2018 Financial management (Yuryat Publishing House, Moscow) 456.
[4] Delmon J 2010 Public-Private Partnership in Infrastructure: A Practical Guide for Public Authorities (World Bank, Moscow).
[5] Zavyalova E B, Tkachenko M V 2018 Problems and prospects of applying public-private partnership mechanisms in social sectors Bulletin of RUDN. Series: Economics 26 (1) 61—75.
[6] Sidorenko E N 2018 Public-private partnership as a tool for attracting private investment in the social sphere Financial economics 5 (3) 344 —348.
[7] Kalinin N V, Medvedeva T V, Romitsyna G A 2017 Improving the financial mechanism for implementing projects in the framework of public-private partnership in the Russian Federation International Scientific Journal 2 (68) 53-56.
[8] Khulukshinov D E, Savenkova E V 2018 The financial mechanism in healthcare in Russia and ways to improve it Issues of economics and law 6 (120) 75-78.
[9] Analytical note “On the state and development trends of the long-term market investment in infrastructure in Russia”. Expert advice on the long-term market investments under the Bank of Russia. - M., 2018. – 86.
[10] UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects. Geneve, United Nations, 2001. 31.
[11] UNIDO Guidelines for Infrastructure Development through Build-OperateTransfer 1996 Geneve, United Nations, References 380.
[12] Public-private partnership as a mechanism for financing regional infrastructure projects in the Russian Federation: current situation, challenges and prospects 2019 Expert Council on the market for long-term investment in infrastructure under the Bank of Russia project finance working group. Moscov, 30.
[13] Federal Law of July 21, 2005 N 115-FL On Concession Agreements July 26, 2005. Rossiyskaya Gazeta - Federal Issue No. 0 (3830).
[14] The Federal Law “On Public-Private Partnerships, Municipal-Private Partnerships in the Russian Federation and Amending Certain Legislative Acts of the Russian Federation” dated 07/13/2015 N 224-FL (latest revision). Information on www. consultant.ru. (date of the application 12.04.2016).
[15] The details of the project of seven new clinics in Novosibirsk Signing a public-private partnership agreement between Ministry of Health of the region and a company from the VIS group is scheduled for February 14-15 in Sochi as part of Russian Investment Forum. Information on https://nsk.rbc.ru/nsk/12/02/2019/5c6244319a7947bb0b1a010. (date of the application 12.03.2019).