

THE ROLE OF THE PUBLIC AND PRIVATE SECTOR IN RUSSIAN TRANSPORT INFRASTRUCTURE

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Abstract: *The purpose of the study is to analyze the Russian type of PPP. The basic principles and trends in the development of Russian transport infrastructure in a public-private partnership were discussed. Analysis and statistics presented in terms of funding and ongoing projects implemented on the territory of the Russian Federation. Author reviewed a list of the main forms of project financing and risk sharing between the parties.*

Keywords: *PPP mechanism, transport infrastructure, private business, risks of the project, strategic objectives, Public-Private Partnership.*

Today it is becoming more obvious that to ensure a strong and sustainable development of a country, the achievement of strategic goals is impossible without the mutually attractive partnership of the state with private sector companies.

PPPs are contractual arrangements between the public sector and a private sector party for the private delivery of public infrastructure services or other basic services. PPPs are complex structures, involving different parties, long and demanding negotiations and relatively high transaction costs and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners.

The private partners usually design, build, finance, operate and manage the capital asset, and then deliver the service either to government or directly to the end users. The private partners receiving as reward a stream of payments from government, or user charges levied directly on the end users, or both (Concessions vs PPPs). Government specifies the quality and quantity of the service it requires from the private partners.

More than 200 PPP projects are currently being implemented or are in the planning phase in Russia. Most of these PPPs are aimed at developing transport infrastructure. The Russian government plans to spend about \$1 trillion over the next 10 years on improving infrastructure.

The use of public-private partnerships marks a shift away from traditional ways of procuring and financing infrastructure projects. A private partner may participate in some combination of design, construction, financing, operations, and maintenance, including the collection of toll revenues.

Under traditional public procurement of infrastructure projects, the public agency retains most of the risks, yet these risks are not usually quantified, nor are their costs always included in the project cost estimates.

The concept of “transferring risk” requires that the private partner will be responsible for

cost overruns or expenses associated with the occurrence of that risk.

Risk transfer can include, among others, construction risk (i.e., risk that the project will not be completed on time or on budget), usage or traffic demand risk (i.e., risk of lower-than-expected revenues from users of the project), and operation and maintenance risk.

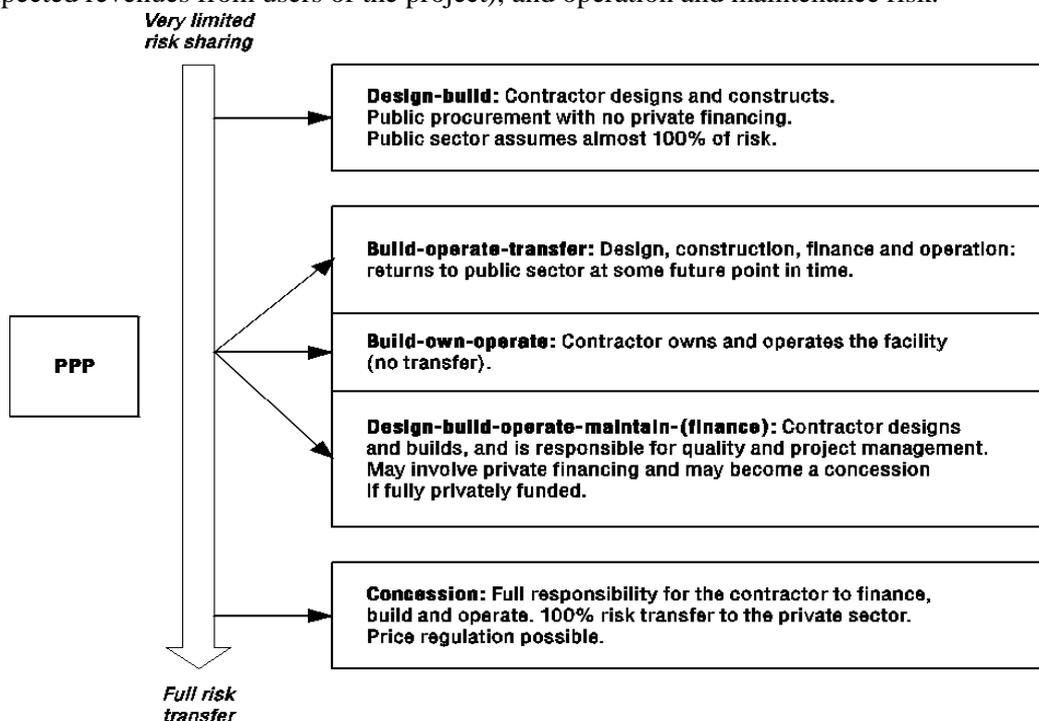


Figure 1. Degrees of risk sharing by project type

Transfer of risk in PPP does not imply the maximum transfer of risk to the private partner. It means that the party best able to carry the risk, should do so.

Internationally there are a number of basic types of agreements recognized which are implemented on the basis of the PPP model. Below is presented a detailed description of most commonly use PPP types in world practice, as well as demonstrating the interdependence of private sector risks and degree of its involvement to a project.

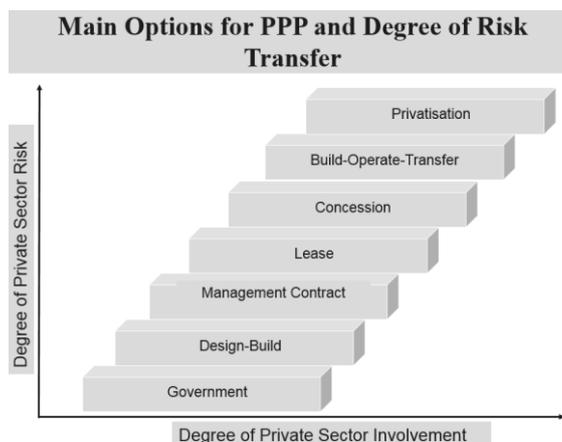


Figure 2. Direct correlation between risk distribution level and the degree of the private sector involvement (based on UN 2008)

The governance structure of a transportation infrastructure project is often a function of the level of risk the private sector is willing to assume. If the private sector is only given the task of designing and building an infrastructure, then there is little risk involved since the public sector assumes the financing and operations of the infrastructure. However, in this case, the private sector would not share any of the potential operational revenue. Inversely, in an entirely private context the private sectors assume all the risks and the revenues. When large and complex infrastructure projects are involved, the private sector is reluctant to assume all the risks, even if the potential revenue could be significant. Pure privatization is therefore not always the most suitable option.

A public - private partnership involves a level of transfer of risk from the public to the private sector, which can take many forms depending upon the degree of private sector involvement. Concessions tend to be the privileged form of PPP for many infrastructure projects, particularly port terminals, since the public sector simply becomes a landlord while the private sector assumes most of the risks, but also the rewards in the likely case that the investment is profitable.

Table 1. Pros and Cons of Different PPP Structures

Structure	Service Contract	Management Contract	Lease	Concession	BOT
Description	Private sector performs specific service. Public sector remains responsible.	Operation and maintenance of utility transferred to private sector.	Private sector leases assets of utility and operates and maintains them.	Private sector has right to use assets, and responsible for operation, maintenance, and investments. Public sector owns assets.	Private party builds and owns asset, then transfers it to public sector.
Pro	Private sector expertise for technical tasks. Public sector keeps control.	Allows improvement in management and cost control. Prepares for greater private involvement	Strong incentive for private sector to perform. Prepares for greater private involvement	Passes full responsibility for operations and investments to private sector.	Wholly private funding.
Con	No private sector investment. Limited risk sharing.	No private sector investment. Little incentive to reduce costs and improve services.	No private sector investment. Administratively demanding on public sector.	Limited to stable political and economic contexts.	Lengthy process and high development costs.

The most wide-spread form of public and private partnership in Russia is concession, concession agreement is involvement of the private sector in effective management of state ownership or in rendering of services which are usually rendered by the state, on mutually advantageous conditions. Concession, the concessional agreement-a form of PPP, the involvement of the private sector in the effective management of the state property or in the provision of services, usually provided by the state, with transferring the set of exclusive rights to a certain facility on mutually beneficial conditions.

Table 2. Types of PPP

TYPE OF PARTNERSHIP	DESCRIPTION	WHO BEARS OPERATING RISKS UNDER PROJECT?	EXAMPLES
BOT: Build – Operate – Transfer or BOOT: Build – Own – Operate – Transfer	A concession holder exercises construction and maintenance (mainly, on the right of ownership) within a set time frame, thereafter the object is transferred to the state.	State/investor	Widely applied in India for road construction.
BTO: Build – Transfer – Operate	A concession holder constructs the object, to be transferred to state (concessor) ownership immediately after the completion of construction. Thereafter, the object is transferred to operation by a concession holder.	State/investor	In Russia: construction of a section (334-543 km) on the Moscow – St. Petersburg toll road.
BOO: Build – Own – Operate	A concession holder builds the object and operates it under ownership rights; the time frame is unlimited.	Investor	This type of contract is widely spread in construction of cargo handling terminals at seaports as well as passenger terminals of airports.
O&M: Operations and Maintenance	Operations and Maintenance: a regulatory body signs a certain service provision and/or maintenance contract with a private company.	State	In Russia: servicing of the federal M-4 Don highway (225-633 km)
BBO: Buy – Build – Operate	Buy – Build – Operate is a type of sale involving reconstruction or extension of an existing object. The state sells an object to a private sector that performs necessary improvements for efficient operation.	Investor	This type of partnership is widely used in Brazil, where the state arranges largescale privatization of infrastructure objects: namely, motorways, airports and seaports. The Russian example is the privatization of energy assets held in the 2000s.
LDO or BDO: Lease – Develop – Operate or Build – Develop – Operate	A private company rents or buys from a regulatory body existing property/equipment, invests own funds in renovation and upgrade, and operates it pursuant to the terms of a contract signed with the regulatory body.	State	In Russia: Moscow government is currently in talks regarding the transfer of metro coaches (depots) to be serviced and upgraded by private investors.
DB: Design – Build	A private company is in charge of design and construction under the project.		

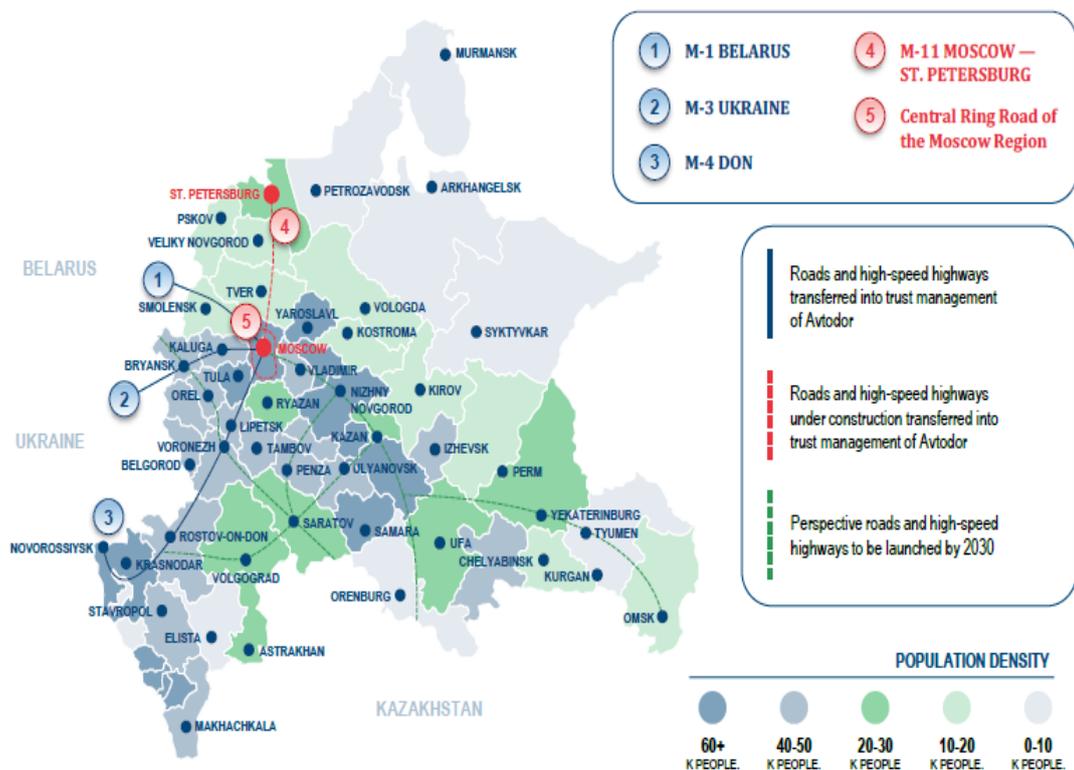
The majority of current PPP projects in Russia are in the transport and infrastructure sector. The potential volume of private investment in transport infrastructure has been estimated at €12-15bn per year.

Table 3. Current PPP projects in Russia

Current PPP projects in Russia	Facts:
<i>He Western High Speed Diameter motorway (WHSD)</i>	<ul style="list-style-type: none"> • Mostly eight-lane with an overall length of 46.6km. • Total project contract value estimated at around \$9bn. • Approximately 50 per cent of construction costs contributed by the Federal government. • The WHSD is important for the Russian Federal government, which is keen to use it as a flagship for implementing PPPs, despite concerns over the project's complexity.
<i>He first section of the Moscow to St Petersburg motorway</i>	<ul style="list-style-type: none"> • The first 58km section of the toll motorway linking Moscow and St Petersburg (a total of 650km) aims to relieve congestion on one of the busiest highways in Russia. • Estimated value of up to \$2.1bn. • Includes the construction of five bridges, eight junctions and 21 flyovers. • Is estimated to take five years to complete. Half of the funding is expected to come from the state with the remainder to be covered by private sources, including international banks and companies.
<i>He Orlovsky Tunnel</i>	<ul style="list-style-type: none"> • This 1km-long tunnel under the River Neva in St Petersburg will open inland shipping to international transport. It will also increase the general capacity of the Volgo Baltic Waterway and is therefore beneficial to the federal transport network. It will also significantly improve the traffic situation in the adjacent areas of the city.
<i>Ulkovo Airport</i>	<ul style="list-style-type: none"> • \$1.5bn is to be invested, through a special-purpose vehicle, to upgrade the airport, enabling it to accept long haul flights. • The concession agreement is likely to last for 30 years.
<i>Adzemny Express</i>	<ul style="list-style-type: none"> • Beginning at Baltic Pearl in the Krasnoselskiy district, this 26.5km rail line will pass through five southern city districts, ending at the Obuchovo metro station. The project will also encompass a 22km extension of the system to Pulkovo Airport and a further 22km extension to Petrodvorets (Naukograd). • The successful bidder will be required to design, build, part finance and maintain the system, which will have 16 stations and 30km of track. • The project has an availability payments structure. • The concession will run for 30 years.

Avtodor has already launched several PPP projects. The first such project – a new exit from the Federal Highway M-1 (Belarus Highway) Moscow-Minsk to the Moscow Ring Road with a length of 18.5 km – was completed in late 2013. Four out of five sections of the Moscow – St.

Petersburg toll-way and one section of the Central Ring Road of Moscow region are currently under construction. Respective operator contracts have been signed with investors for servicing of the M-4 Don road.



Source: Avtodor

Figure 3. Existing and prospective roads managed by Avtodor

The Russian PPP market is potentially enormous. One of the smallest current PPP roads in Russia, the Orlovsky Tunnel in St Petersburg, at around \$1bn is still substantially bigger than the largest road PPP in relatively mature markets such as Germany – the A1 at \$672m. Further to the first projects being developed mostly in the transport and, to a lesser extent, the utility sector, there is also scope for future use of PPPs to develop social infrastructure.

The recent dramatic devaluing of Russia's stock market has undoubtedly raised general concerns over market volatility. Similarly, currency exchange risk is currently a cause of anxiety. Russia's foreign currency rating is currently BBB+ (Fitch and S&P). In addition, investment in Russia is still affected by concerns over sovereign risk and revenue security, and by the perception that its commercial banks carry political risk. One result of these uncertainties is that export credit agencies are increasingly being approached by bidders to finance or underwrite PPPs.

Despite the recent volatility of its economy, the long term outlook for foreign investment in

Russian infrastructure remains positive. Russian transportation, accounts for 80% of all infrastructure investment in the country.

In Russia, the rate of infrastructure investment averages 3.6-4.2% of GDP, or roughly in line with the global average. By 2020, infrastructure investment will reach \$650 bn (\$90 bn per year on average). These funds will suffice for moderate expansion of infrastructure and gradual improvement of its quality. It is expected that many of the projects will be completed using PPPs.

The bulk of transport infrastructure investment will be directed to road construction (45%), while rail transport will take 20% (including the Moscow-Kazan High-Speed Railway and subway facilities), pipeline transport should account for 30%, while ports and airports will comprise the remaining 5%.

Whereas most PPPs in the pipeline in Russia focus on transportation, airports and ports, in coming years it is anticipated that this form of project finance can be adapted for use on social infrastructure projects.

References

- [1]. PUBLIC-PRIVATE PARTNERSHIPS: IN PURSUIT OF RISK SHARING AND VALUE FOR MONEY - Philippe Burger University of the Free State OECD Workshop Amman – April 2008.
- [2]. PUBLIC-PRIVATE PARTNERSHIP IN DEVELOPING MUNICIPAL INFRASTRUCTURE EBRD 25TH SEPTEMBER 2009 SARAJEVO.
- [3]. THE CANADIAN COUNCIL FOR PUBLIC PRIVATE PARTNERSHIP, 2009.
- [4]. 2013 USDOT FEDERAL HIGHWAY ADMINISTRATION - RISK VALUATION AND ALLOCATION FOR PUBLIC-PRIVATE PARTNERSHIPS (P3S).
- [5]. MURMANSK REGION INVESTMENT PORTAL - http://invest.govmurman.ru/en/plowadki/gosudarstvennochastnoe_partnerstvo/ (consulted 15/11/2016)
- [6]. RUSSIAN FEDERATION: PUBLIC PRIVATE PARTNERSHIPS IN RUSSIA: AN OVERVIEW <http://www.mondaq.com/russianfederation/x/70344/Government+Contracts+Procurement+PPP/Public+Private+Partnerships+In+Russia+An+Overview>.
- [7]. INDUSTRY REPORT: RUSSIAN INFRASTRUCTURE - A BIG SHIP SAILS FAR. GAZPROMNAK, JULY 15, 2014.
- [8]. PUBLIC PRIVATE PARTNERSHIP AS A LEVER FOR ECONOMIC DEVELOPMENT - LAHTI UNIVERSITY OF APPLIED SCIENCES POLINA BAZHENKOVA -2016. P 23 ♦