

## **PUBLIC LAW**

### **FUNDAMENTALS OF PROJECT FINANCE APPLIED TO PRIVATE PUBLIC PARTNERSHIPS IN COLOMBIA<sup>1</sup>**

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#### **ABSTRACT**

*PPPs, structured under Project Finance standards, form a system determined by a normative complex organized by subsystems and interacting and interdependent elements conditioned by a process of control and communication. This systematic nature has an effect on the legal configuration of the content of the PPP contract. It was shown that financing depends, on the one hand, on budgets that condition it and, on the other, it acts as a determinant of other elements of the system; so that there is a close relationship between the financing of the project and the challenge of contractual management. The correspondence between the components of the project finance system is of reciprocal conditioning and is determined by the communication between its parts.*

#### **INTRODUCTION**

The theme of this paper is the "Fundamentals of Project Finance applied to Public Private Partnerships in Colombia"; this choice is based on several assumptions that justify it, concerning mainly the future of financing public contracts with linking of private capital. The paradigm of such linkage are the PPP contracts that have been structured to finance infrastructure projects in Colombia. It should also be taken into account that PPPs have been specially structured for the provision of public road transport infrastructure; this justified a second thematic limiting. According to the latest Report of the Public Private Partnerships (RUAPP), of the total PPP projects currently underway, 60% are from the transport

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<sup>1</sup> A more extensive version in Spanish of this paper was published in: La financiación de contratos públicos: el modelo innovador de asociaciones público-privadas en Colombia (the financing of public contracts: the innovative model of public private Partnerships. In: Montaña/Rincón (ed.). "Contratos Públicos: Problemas, perspectivas y prospectivas". Bogotá, Universidad Externado de Colombia, 2017, pp. 159 - 201.

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sector, led by the National Infrastructure Agency (ANI) and the District of Bogotá.<sup>3</sup> For the structuring of these PPPs, the principles set out in Law 1508 of 2012 on PPPs have been incorporated and the Fundamentals of Project Finance have been applied.

## 1. BANCABILITY AND CONTRACTUAL MANAGEMENT

In Colombia, the 8 road transport infrastructure projects that have achieved definitive financial closure<sup>4</sup> have demonstrated that the financing of the projects supposes that the concession contract is configured in a bankable way (that is, it can be financed). The concession contract is then a determinant of the financing of structured infrastructure projects under Project Finance standards.

### A. PPP AS DETERMINANT OF FINANCING

PPPs, as a cooperative administration instrument, are defined in Law 1508 of 2012 as "(...) a private capital linkage instrument, which are embodied in a contract between a state entity and a natural or legal person under private law, for the provision of public goods and their related services, which involves the retention and transfer of risks between the parties and payment mechanisms, related to the availability and level of service of the infrastructure and / or service "(Article 1 Law 1508 of 2012). The Law 1508 of 2012 establishes that "the concessions paragraph 4 of article 32 of Law 80 of 1993, are included within the Public Partnership Private schemes " (Article 2). The concession is, therefore, a type<sup>5</sup> of PPP.

Among some of the elements that make PPP contracts for road infrastructure bankable are, for example, payment for availability. Meaning that the right to receive remuneration is conditioned by the availability of the infrastructure to the

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<sup>3</sup> Republic of Colombia, Departamento Nacional de Planeación, *Informe Trimestral del Registro único de Asociaciones Público-Privadas (RUAP)*, Num. 12, second trimester of 2017, p. 1-7. Available online under: <https://colaboracion.dnp.gov.co/CDT/Participacin%20privada%20en%20proyectos%20de%20infraestructu/Informe%20T%202017.pdf>

<sup>4</sup> Here we must make a distinction between ANI financial closure and final closure. Financial closure is defined as « (...) the achievement of a minimum amount of Debt Resources for the Project projects (...)» (Republic of Colombia, Ministerio de Transporte, Agencia Nacional de Infraestructura, *Contrato de concesión bajo el esquema de APP, Parte General*, clause 1.23. Available online under: [https://www.ani.gov.co/sites/default/files/u233/contrato\\_parte\\_general\\_4g.docx](https://www.ani.gov.co/sites/default/files/u233/contrato_parte_general_4g.docx)). The ANI Financial Closing is credited by submitting to the ANI the documents that prove the financing to the Concessionaire. (Ibidem, Clause 3.8.). The definitive financial closure consists of the effective disbursement of resources (E. R. Yescombe, *Principles of Project Finance*, 2 ed, Elsevier, Amsterdam, 2014, p. 87, 386 following).

<sup>5</sup> On other models of PPP see: Carlos Oliveira Cruz, Rui Cunha Marques, *Infrastructure Public-Private Partnerships*, Springer, Berlin, 2013, p. 2 ss. ; Stefano Gatti, *Project Finance in Theory and Practice*, Academic Press, 2008, p. 1 s.

fulfillment of service levels and quality standards in the different functional units or stages of the project (Art. 5 Law 1508 of 2012 modify by Art. 37 Law 1553 of 2015). The functional unit of infrastructure is the set of engineering structures and facilities essential for the provision of services with functional independence (Art. 2.2.2.1.2.2. Decree 1082 of 2015). The right to remuneration of the concessionaire starts with respect to each functional unit from the subscription of the respective certificate of completion of functional unit.<sup>6</sup>

The division of the project into functional units is not only important, from the point of view of remuneration, but also of financing, because in the public securities market, financing can be obtained by securitizing the cash flows from the income of each functional unit. This element of contractual structuring made it possible, for example, for the Pacifico III and Barranquilla-Cartagena projects to be financed through bond issues.

In order to maintain the stability of the cash flow, PPP road infrastructure contracts, as a general rule, provide for the ANI's duty to make payments of economic compensation for unlikely precaution.<sup>7</sup> This is the difference between the present value of the effective collection of tolls versus the value of the projected collection accumulated until year eight (8), thirteen (13) and 18 (...)"<sup>8</sup>.

Another very good structuring element, since the project must, in many cases, meet its foreign currency credit obligations, was the approval of the payment of futura force<sup>9</sup> in US dollars.

In determining the project's bankability, not only are relevant payments due for differences in collections, futura forces, toll collections, but also payment for early termination<sup>10</sup>. The Infrastructure Law (Law 1682 of 2013) and the PPP Act

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<sup>6</sup> ANI, *Contrato de concesión bajo el esquema de APP, Parte General*, op. cit., Clause 3.1.

<sup>7</sup> On the minimum traffic guarantees see e.g. Court of Arbitration of Concession Santa Marta Paraguachón S.A. v. National Institute of Roads, Inviás, Arbitral Award of 24.08.2001, Section II 2.4. (unpublished); Court of Arbitration of Concessionary Road of the Andes S.A. - COVIANDES S.A. against the National Agency of Infrastructure - ANI, Arbitral Award of 17.11.2016, Section B 5.3.1 (unpublished). Bogotá D.C., seventeen (17) of November two thousand sixteen (2016).

<sup>8</sup> *Contrato de concesión bajo el esquema de APP, Parte General*, op. cit., Clause 1.47.

<sup>9</sup> Futura force „Is authorized to assume obligations that affect the budget of next lifetimes may be ordinary, the execution starts affecting the budget of the effect in progress and outstanding, whose duties affect the budget for fiscal years future and have no appropriation in budget the effect that the authorization is granted and are approved by the CONFIS» (ANI, Glosary. Available unter: [https://www.ani.gov.co/glosario/letter\\_v](https://www.ani.gov.co/glosario/letter_v)).

<sup>10</sup> « Early Termination of Contract at any stage, will result from the occurrence of any of the grounds provided for in Section 17.2 of the General Part. In any case, the respective means configured causal only when: i) the parties agree to the occurrence thereof, or -of not agree when this point-so

(Law 1508 of 2012) prescribe that it is mandatory to include in contracts that develop transport infrastructure projects, "(...) a clause in which the mathematical formula that determines the eventual reciprocal benefits in case of being terminated in advance" (Art. 13 Law 1682 of 2013 and Art. 32 Law 1508 of 2012). This early termination formula is a crucial determinant of the bankability of the project because, in the event that the early termination of the contract is declared, the guarantees provided in the credit agreements must be made effective.

Another element that makes PPP contracts of road infrastructure bankable is the shared assumption between the concessionaire and the ANI of environmental, predial<sup>11</sup> and relocations of networks<sup>12</sup> risks.

In addition, the law of PPP establishes the obligation to constitute an autonomous Equity<sup>13</sup> (Art. 24 Law 1508 of 2012). With the duty to manage all the resources of the project by means of an autonomous patrimony, the possibility is excluded that the concessionaires use the same unit of cash to grant loans to consortia and temporary unions that are part of the financial framework.

Another very good structuring element in PPPs is the following: three words were eliminated from the National Development Plan and this would mean a boom in regional PPPs in the near future. The Constitutional Court ruling declared (in the sentence C 346 of 2017) unconstitutional the expression "of the national order" contained in article 31 paragraph 4 of the plan law, which amended Article 5 of the PPP Act. In this way, it is now possible for regional representatives to recognize real property rights as a source of project funding.

As noted, these elements are a concretization of various standards that form part of the reference areas of the administrative law system and therefore are also

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state in firm statement, the Arbitration Court, ii) if necessary to issue an administrative act for configuring the causal, when the latter is in accordance with the provisions of the Applicable Law, or iii) firm when the ANI notify the Concessionaire's decision that treats section 17.2 (d) of the General Part ». (ANI, Glosary. Available unter: [https://www.ani.gov.co/glosario/letter\\_t](https://www.ani.gov.co/glosario/letter_t)).

<sup>11</sup> Here is important to defined Predial management. "They are the obligations of the Concessionaire related to the acquisition of land for the project and plan the implementation of socio-economic compensation » (ANI, Glosary. Available unter: [https://www.ani.gov.co/glosario/letter\\_g](https://www.ani.gov.co/glosario/letter_g)).

<sup>12</sup> Network « (...) relates to the transport infrastructure and utilities supply, telecommunications, hydrocarbons and in general, any fluid or cable. Networks within the concept of the "Networks and assets" as defined by law 1682 of 2013 are understood included ». (ANI, Glosary. Available unter: [https://www.ani.gov.co/glosario/letter\\_r](https://www.ani.gov.co/glosario/letter_r)).

<sup>13</sup> Autonomous Equity « (...) is the autonomous patrimony that must be the dealer by holding the commercial trust with the Trust Agreement. Patrimonio Autonomo be the center accounting allocation of the project and therefore all economic events the project will be recorded in this heritage ». (ANI, Glosary. Available unter: [https://www.ani.gov.co/glosario/letter\\_p](https://www.ani.gov.co/glosario/letter_p)).

structuring components of all PPP contracts that are held for the provision of public infrastructure.

## B. FINANCING AS A DETERMINANTS OF PPP

Most PPPs are configured based on Project Finance standards.<sup>14</sup> Project Finance is defined as a "financing structure that depends on future cash flows from a specific operation as the primary source of loan repayment"<sup>15</sup>. This structure has two main characteristics: On one hand, the assets and rights of the project are part of a special purpose vehicle or vehicle company. From the accounting point of view, the financing is reflected in the balance of the vehicle company and not in the balance of the sponsor or promoter.<sup>16</sup>

Project Finance is a system in which the elements that integrate it are interconnected.<sup>17</sup> One of the elements, which are part of the overlapping project finance regulatory framework, is the network of contracts that, for the configuration of the project financing, celebrates the vehicle company (SPV) and regulate legal relationships among project participants (SPV).<sup>18</sup> These contracts link the financiers, the intervener, the public entity, the fiduciary, the builder (EPC-contractor), operating companies and maintenance (O & M), insurers, suppliers, etc.<sup>19</sup>

The following chart shows the basic contractual system for the structuring of road infrastructure programs in Colombia in which the theory of project financing has been applied:

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<sup>14</sup> Eduardo Engel, Ronald D. Fischer, *The Economics of Public-Private Partnerships*, Cambridge University Press, Santiago de Chile, 2014, p. 93.

<sup>15</sup> Trade Finance Consultants, *Project Finance: Financiación de proyectos internacionales*, Instituto Español de Comercio Exterior, Madrid, 2002, p. 16.

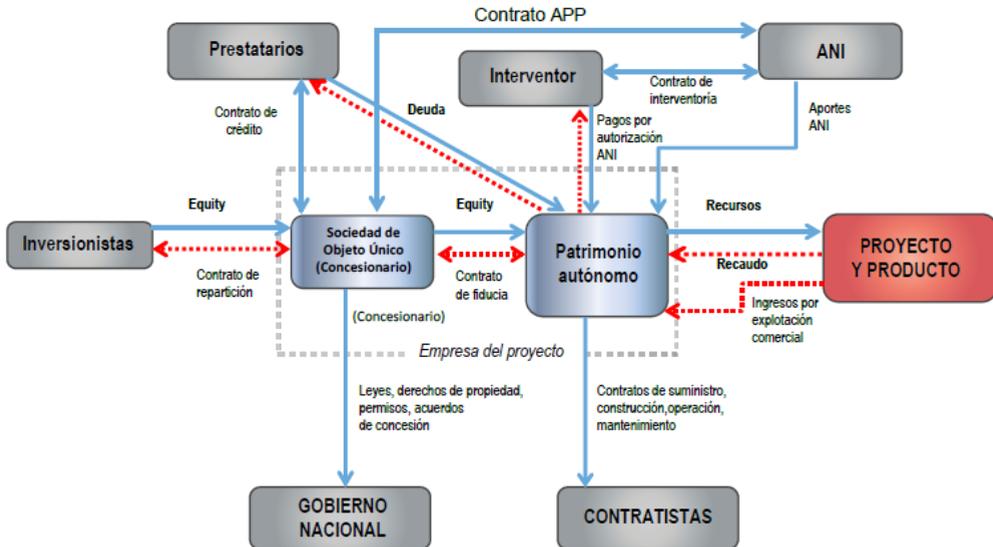
<sup>16</sup> Ligia Catherine Arias Barrera, "Perspectiva legal de la financiación de proyectos 'Project Finance' y el manejo del riesgo", in *Revista de Derecho Privado*, Universidad Externado de Colombia, Num. 23, 2012, p. 206.

<sup>17</sup> Stefano Gatti, *Project Finance in Theory and Practice*, op. cit., p. 267.

<sup>18</sup> Ibidem.

<sup>19</sup> Trade Finance Consultants, *Project Finance*, op. cit., p. 21 following.; Ignacio M de la Riva, "Nuevos modelos de financiación de infraestructuras públicas", in *Revista Digital de Derecho Administrativo*, Universidad Externado de Colombia, No. 17, first semester of 2017, p. 202. Available under <http://revistas.uexternado.edu.co/index.php/Deradm/article/view/4835/5698>

## ESTRUCTURA DEL CONTRATO MARCO DE LA ANI PARA 4G



Source: Colombian Treasury Department, Unit of Financial Regulation.<sup>20</sup>

Because, as a system<sup>21</sup>, Project Finance consists of communication, these contracts are, then, communicative acts of consensus-building. In this vein, the parts of the project financing system act interdependently through communicative processes and are constantly in a reciprocal relationship.

It was shown that the PPP contract is a determinant of the financing of public infrastructure projects. Due to the relationship of mutual interdependence between the elements of the system, funding can also have repercussions in shaping the financial and contractual cycle of PPPs. In this way, it has been argued that some of the obligations provided for in the PPP contract should be modified in order to achieve a reduction in the time needed to obtain the financial closure of the projects.<sup>22</sup> Others should be included, as the financing acts as a determinant of contractual management.

<sup>20</sup> Laura Ruiz, Camilo Hernández, *Estudio sobre regulación prudencial de Project Finance para financiación de infraestructura*, Ministerio de Hacienda, Unidad de Regulación Financiera, 2016, p. 4. Available under: [http://www.urf.gov.co/urf/ShowProperty?nodeId=%2FOCS%2FP\\_MHCP\\_WCC-061702%2F%2FidcPrimaryFile&revision=latestreleased](http://www.urf.gov.co/urf/ShowProperty?nodeId=%2FOCS%2FP_MHCP_WCC-061702%2F%2FidcPrimaryFile&revision=latestreleased)

<sup>21</sup> Niklas Luhmann, „Die Wirtschaft der Gesellschaft als autopoietisches System“, in *Zeitschrift fuer Soziologie*, vol. 13, No. 4, october of 1984, p. 311.

<sup>22</sup> Financiera de Desarrollo Nacional (FDN), Clemente del Valle, “La Financiación de las obras: Avances y retos”, conferencia en *XIII Congreso Nacional de la Infraestructura*, Cartagena, 25 of november of 2016 (unpublished).

It has been argued that one of the reasons for the delays in securing the financial closures of the 4G projects is the way in which the contractual and financial cycle of these projects is currently structured: one of the main contractual costs of the concessionaire during the pre-construction phase is to obtain financial closure.

The fulfillment of the duty to prove the financial closure must be carried out in parallel with other contractual obligations, such as the adjustment of the designs to phase III, socio-environmental management and predial management.

Because most of the information and studies that are collected after the conclusion of the contract, such as adjustments to phase III designs, are required as input for banks to develop due diligence<sup>23</sup>, it has led to the times between the award and the financial closure oscillating between 19 - 22 months.<sup>24</sup> Thus, it is necessary that the valuation of the bankability of the project is carried out at an early stage of the contractual procedure.<sup>25</sup> The challenge of shaping the contractual and financial cycle is to extend the award line to a later stage of the cycle, so that the contract is concluded when a good number of premises have already been acquired that are required for the execution of the interventions in the first functional unit, all the environmental licenses, permits and concessions are available and the designs have been adjusted to phase III.<sup>26</sup> Due diligence will be carried out when all required documentation is ready and will reduce the temporary gap, currently existing, between the administrative awarding act and obtaining the financial closure.<sup>27</sup>

It was demonstrated that there is a relationship of mutual interdependence between the elements of the system that make up Project Finance. In this way, the PPP contract is a determinant of the financing of public infrastructure projects and financing serves as a determinant of contractual management.

## II. SOURCES OF PPPS FINANCING

The conclusion of a PPP contract as a (partly) rational decision of the administration is the result of a process of interaction, not only of the elements of the Project Finance system, but also of the framework of contracts celebrated by the

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<sup>23</sup> Due diligence consists of a process of verification of the technical, legal and financial information of the project (Trade Finance Consultants, *Project Finance*, op. cit., p. 63).

<sup>24</sup> FDN, Clemente del Valle, "La Financiación de las obras: Avances y retos", op. cit.

<sup>25</sup> Frank Littwin, Hans Wilhelm Alfen, *Public private partnership im öffentlichen Hochbau: Handbuch*, Kohlhammer, Stuttgart, 2006, p. 310.

<sup>26</sup> FDN, Clemente del Valle, "La Financiación de las obras: Avances y retos", op. cit.

<sup>27</sup> *Ibidem*.

SPV, but also determines and is determined by the communication of the elements and participants of the system with its environment<sup>28</sup>, under normative, institutional, technical, economic and financial aspects, both nationally and internationally.

### A. STRUCTURE OF THE SOURCES OF FINANCING

The regulatory context applicable to PPPs is, for example, 1) Art. 26 of Law 1508 of 2012 on future forces for PPP projects, 2) Decree 765 of 2016 (Articles 10, 12 and 14), by which the Pension Funds were allowed to commit up to 1% of the value of the moderate or higher risk fund in the purchase of securities issued for the financing of projects for the fourth generation of road concessions (4G) during the operation and maintenance phase, 3) Law 1676 of 2013 on securities guarantees, 4) Art. 63 of Law 1739 of 2014 (incorporated in the text of the current tax reform law), which reduced the withholding rate at the source to 5% of the value of the payment for concepts of interest arising from loans for the financing of infrastructure projects under the PPP scheme, 5) provisions of the infrastructure law, such as Art. 28, which provides for the early delivery by court order of real property declared of public utility for infrastructure. 6) in addition, as part of the regulatory context, we have Decree 816 of 2014 that facilitates the financing of projects as the individual quota increases for credit institutions up to 25% of their technical assets and that of the FDN in one 40% provided that it does not capture public resources (Art. 2.1.2.1.2).

The regulatory, economic and financial context and the configuration of a bank concession contract have promoted that, to date, 25 of the projects of the infrastructure PPP program have been accredited ANI financial closure, of which 8 have definitive financial closure by value of \$ 12.57 billion COP. According to the FDN, for the financing of these projects, local banking has been the main source during the construction phase by mobilizing 48.9% of total funding, international sources approved 21.9% of total funding, the capital market mobilized 20.6% of the financing with institutional investors such as the Infrastructure Funds and 8.6% was financed by the FDN.<sup>29</sup>

It is important to make a distinction here between the concepts of source of funding and source of remuneration or payment. Fourth generation (4G) concessional funding sources have so far been capital markets, multilateral banks, the banking system (local and international) and the FDN. The sources of remuneration are project revenues that are perceived at the stage of operation of

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<sup>28</sup> Niklas Luhmann, *op. cit.*, p. 311.

<sup>29</sup> FDN, Clemente del Valle, "La Financiación de las obras: Avances y retos", *op. cit.*

the respective functional unit. The sources of remuneration, foreseen in the contracts of road concessions 4G are the collections of tolls, the revenues by commercial exploitation, the future vigencias and the differences of collection.

Administrative law applies not only concepts of the social sciences, but also of economic science. Administrative law requires, therefore, not only to integrate forms of private public collaboration in its dogmatics, but also to deal with models of development and financial instruments as new tools for directing social processes.<sup>30</sup> These instruments, together with those regulations, personnel, budget, organization and procedure, form a kind of regulatory structures.<sup>31</sup> Thus, in the debate on the reform of administrative law, "mixing of instruments" and the postulate of administrative law as a science of management.<sup>32</sup>

## B. FUTURE OF FINANCING

There are a number of challenges that are conditioned by changes in the system environment that are likely to influence the alteration of the composition of the project finance structure.<sup>33</sup> To overcome them, administrative law, and especially the public procurement system, must be prepared to develop strategies of the economic sciences and therefore, be able to preserve the functionality of state actions.<sup>34</sup>

The challenge of PPPs in the specific case of the transport sector is that feasibility has been given to the projects of the next decade for which \$ 130.1 billion COP is required, of which \$ 30.1 billion COP is needed to leverage the debt of the 4G projects without definitive closure.<sup>35</sup>

Assuming that the banks concentrate approximately 10% of their commercial portfolio in infrastructure projects, if the FDN participates in financing with all its leveraged resources, it could cover approximately 56% (\$ 72.8 billion COP) of resources required to finance the program.<sup>36</sup>

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<sup>30</sup> Eberhard Schmidt-Assmann, "Cuestiones Fundamentales sobre la reforma de la Teoría General del Derecho Administrativo", in Javier Barnes (ed.), *Innovación y reforma en el derecho administrativo*, 2 ed., Global Law Press, Madrid, 2012, p. 47 following.

<sup>31</sup> *Ibidem*, p. 48. About the types of direction: Jan Philip Schaefer, *Die Umgestaltung des Verwaltungsrechts*, Mohr Siebeck, Tuebingen, 2016, p. 97.

<sup>32</sup> Eberhard Schmidt-Assmann, "Cuestiones Fundamentales sobre la reforma de la Teoría General del Derecho Administrativo", *op. cit.*, p. 47.

<sup>33</sup> Tomás Serebrisky, Ancor Suarez Alemán, Diego Margot, María Cecilia Ramirez, *Financiamiento de la infraestructura en América Latina y el Caribe: ¿Cómo, Cuanto y Quien?*, Banco Interamericano de Desarrollo, Nueva York, 2015, p. 21.

<sup>34</sup> Jan Philip Schaefer, *op. cit.*, p. 3.

<sup>35</sup> FDN, Clemente del Valle, "La Financiación de las obras: Avances y retos", *op. cit.*

<sup>36</sup> *Ibidem*. These figures are part of a prioritization exercise with specific assumptions and parameters based on the projection of the Intermodal Master Plan projects, whose effective implementation depends on the political and fiscal situation.

Achieving the 50% official goal of bank-local infrastructure financing in the future will entail significant challenges. According to the National Association of Financial Institutions (ANIF), these challenges have to do with: (i) the greater macro-financial tension of the country, (ii) the persistence of legal risks in projects, particularly with regard to problems of consultation with communities; (iii) recent uncertainty in the infrastructure sector, on account of the Odebrecht corruption scandals (Ruta del Sol-II and Navegabilidad del Río Magdalena), Conalvías and the expiration of the Line Tunnel contract, (iv) The strict financial regulation imposed by Basel III, especially in relation to liquidity requirements.<sup>37</sup>

With this scenario, Asobancaria<sup>38</sup> has stated that "it is necessary for the Government to adjust the current legislation, clearly defining issues related to rules of inability occurring during the course of the Bidding Process, nullity of a PPP contract, environmental, social licenses and prior consultation with the indigenous and Afro-descendant peoples"<sup>39</sup>.

Some of these aspects would be solved with the reform to the public procurement law and the infrastructure law that is being processed by Congress and that there are still two debates remaining to be promulgated.

Another complementary solution to the problem could be found in the capital market.<sup>40</sup> It is necessary to deepen this market using instruments such as securitization, bonds and refinancing and with an increase in the participation of institutional investors.<sup>41</sup>

In addition, it is essential to create other types of financing instruments, such as Mini Perm credits. These are instruments that will allow the refinancing of short-term loans. In this way, mini perm credits would be used in the construction phase, which is the risk phase of the project, which would then be replaced by

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<sup>37</sup> ANIF, "Crédito Bancario e Infraestructura Vial en Colombia: Exigencias de Basilea III y Concesiones 4G". July 2017, p. 45. Available under: <http://www.anif.co/sites/default/files/investigaciones/anif-bancolombia-infra06172.pdf>

<sup>38</sup> Colombian financial association.

<sup>39</sup> "Banca debería limitar financiación a proyectos de infraestructura", in: Portafolio, 30.07.2017. Available under: <http://www.portafolio.co/economia/infraestructura/banca-no-deberia-seguir-financiando-proyectos-de-infraestructura-508247>

<sup>40</sup> Bolsa de Valores de Colombia, Juan Pablo Córdoba, "Financiación de la infraestructura a través del mercado de capitales: Balances y retos", conferencia en *XIII Congreso Nacional de la Infraestructura*, Cartagena, 25 de noviembre de 2016 (unpublished). These figures are part of a prioritization exercise with specific assumptions and parameters based on the projection of the Intermodal Master Plan projects, whose effective implementation depends on the political and fiscal situation.

<sup>41</sup> Ibidem.

bonds issued during the stage of operation, during which time the project generates cash flows.<sup>42</sup>

A complementary tool to mobilize alternative sources of financing could be the configuration of standard real estate investment vehicles - or infrastructure - such as REITs. The proposal of the Stock Exchange of Colombia is the following: The grantee and the initial financiers contribute to the Trust Fund the rights to flows to 20 or 25 years of the project, in exchange for money or securities (with circulation in the secondary market). The Fund sells the flows and issues standardized securities representing these flows to investors who pay the Fund the price for the securities and in the end receive the return.<sup>43</sup> This would have the advantage of reducing the liquidity risk by allowing the conversion of a non-liquid asset into a liquid one and would allow lenders and concessionaires to fully or partially participate in the development of the project.<sup>44</sup>

It is further assumed that foreign multilateral and governmental financial institutions may eventually replace some of the funders.<sup>45</sup> This would be the case for development banks such as the European Investment Bank and the Kreditanstalt für Wiederaufbau (Institute for Credit for Reconstruction) for certain sectors.

The funding of PPP projects with a source in private financial market resources further raises the question about the feasibility of configuring *lege ferenda* Crowdfunding models in Colombia. Crowdfunding consists of "(...) new form of financing through the use of small amounts of resources of several individuals to donate or finance, projects through a platform with internet connection."<sup>46</sup> Only in 2014, 3 billion EUR was raised in the European Union through Crowdfunding.<sup>47</sup> Under this model, in Germany, for example, projects were financed for the construction of schools, school restaurants, renewable energy, etc.<sup>48</sup> The direct

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<sup>42</sup> Ingo Walter, *The infrastructure Finance challenge*, New York University, New York, 2016, p. 59.

<sup>43</sup> Bolsa de Valores de Colombia, Juan Pablo Córdoba, "Financiación de la infraestructura a través del mercado de capitales: Balances y retos", op. cit.

<sup>44</sup> Ibidem.

<sup>45</sup> Stefano Gatti, op. cit., p. 115.

<sup>46</sup> República de Colombia, Comisión Intersectorial de inclusión financiera, *Estrategia Nacional de Inclusión Financiera en Colombia*, Comisión Intersectorial de inclusión financiera, Bogotá, 2016, p. 31. Available under: [http://www.minhacienda.gov.co/HomeMinhacienda/ShowProperty?jsessionid=zkyr4ADmpOZ7jDzXNms6VMIS4zsYaCOuzYgndvKKAMW-CwqTcg6l!203701145?nodeId=%2FOCS%2FP\\_MHCP\\_WCC-041673%2F%2FidcPrimaryFile&revision=latestreleased](http://www.minhacienda.gov.co/HomeMinhacienda/ShowProperty?jsessionid=zkyr4ADmpOZ7jDzXNms6VMIS4zsYaCOuzYgndvKKAMW-CwqTcg6l!203701145?nodeId=%2FOCS%2FP_MHCP_WCC-041673%2F%2FidcPrimaryFile&revision=latestreleased)

<sup>47</sup> Sonja Kay, „Crowdfunding – Tatsachen und Rechtsfragen einer neuen Finanzierungsmethode für kommunale Infrastrukturprojekte“, en *JM (Juris: die Monatszeitschrift)*, 2016, p. 178.

<sup>48</sup> Sonja Kay, op. cit., p. 182.

participation of the citizens in the financing of the project could help mitigate certain risks, such as social and political. This could be an alternative option for the financing of public infrastructure in Colombia.

## CONCLUSION

The financing structure of PPP projects in Colombia was described. This is a response to the question of how to set up financing structures that allow public entities to have access to economic resources from the private financial market for investment in public infrastructure. It was demonstrated that PPPs, structured under Project Finance standards, form a system determined by a normative complex organized by subsystems and interacting and interdependent elements conditioned by a process of control and communication. The classical theory of direction, represented by the linear relationship between the subject and the object of direction, gives way to a model in the form of a network that takes into account economic influences.

The systematic treatment of the financing of the PPP contracts is the element that makes it novel in front of the public works and the concession as classic techniques of financing of public infrastructure.

It was shown that this systematic nature has an effect on the legal configuration of the content of the PPP contract. It was shown that financing depends, on the one hand, on budgets that condition it and, on the other, it acts as a determinant of other elements of the system; so that there is a close relationship between the financing of the project and the challenge of contractual management. The correspondence between the components of the project finance system is of reciprocal conditioning and is determined by the communication between its parts.

It was found that the project financing system also determines and is determined by the communication of the elements of the system with its normative, institutional, technical, economic and financial environment, at the national level (as, for example, Art. Law 1508 of 2012 on future vigencias for PPP projects) and international (such as the new Basel III regulation).

PPPs, then, would be part, in Luhmann's words, of a system closed political self, insofar as Project Finance produces the elements of which it is composed, but at the same time it is open, because that own reproduction can only be carried out in relation to its surroundings.

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