

Financing of South Stream Pipeline in Serbia

Финансирање гасовода Јужни ток у Србији

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Abstract: Financing projects in the energy sector is expensive, risky and time-consuming. Project finance leads to collecting funds, attracting investors and risk allocation. The aim of this paper is to present the funding of South Stream pipeline in the territory of Serbia. Project finance provides funding pipeline with equity capital, bank loans and project finance CDO issue. Structured financing allows SPV to use loans, gas transportation agreement and contractual obligations as collateral for the bond issue.

Keywords: Project finance, structured finance, gas pipeline, project CDO, Islamic Banking.

Сажетак: Финансирање пројеката из енергетског сектора јесте скупо, ризично и дуготрајно. Пројектно финансирање омогућава прикупљање новчаних средстава, привлачење инвеститора и расподелу ризика. Циљ рада јесте да се представи финансирање гасовода Јужни ток на територији Србије. Пројектно финансирање омогућава финансирање гасовода помоћу акцијског капитала, банкарских кредита и емисије CDO. Структурирано финансирање омогућава да SPV као колатерал за емисију обвезница користи кредите, уговоре о транспорту гаса и друге уговоре.

Кључне речи: пројектно финансирање, структурирано финансирање, гасовод, пројектне CDO, исламско банкарство.

Introduction

The construction of the South Stream pipeline aims to provide transport of gas from Russia through Bulgaria, Serbia, Hungary and Slovenia to Italy. The bilateral agreement between Serbia and the Russian Federation has included the construction of a gas pipeline in the territory of Serbia (411 km), construction of warehouses at Banatski Dvor and pipeline Nis-Dimitrovgrad. South Stream pipeline will primarily enable continuity of gas supply, as well as the collection of tariffs for gas transport through Serbia. The aim of this paper is to present a method of financing of the

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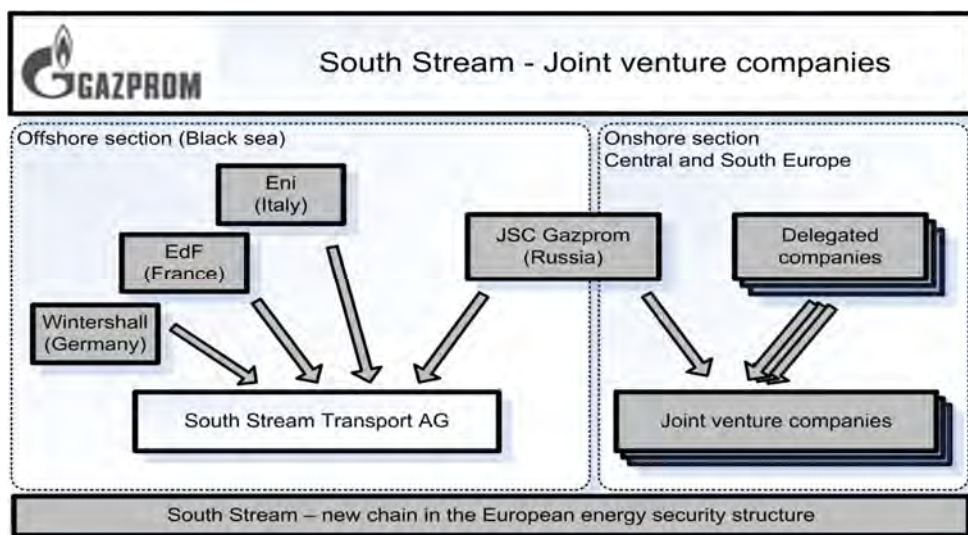
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pipeline that is applied worldwide, and to point out the possibility of funding the South Stream pipeline.

Russia's company Gazprom Neft is building two larger pipelines: North Stream and South Stream. South Stream pipeline shareholders are Gazprom (50%), Wintershall (German company), the EDF (French company), and energy group Eni (Italian company). The construction of the South Stream gas pipeline will cost €16 billion. The detailed information about financing South Stream pipeline is not known, except that it will be financed by Gazprom Neft, Sberbank and Gazprom Bank. The South Stream pipeline consists of offshore and onshore sections. Russian Federation has signed agreements on Bulgaria, Serbia, Hungary, Greece, Slovenia and Croatia.

Figure 1. South Stream



Source: South Stream – new chain in the European energy security structure, Leonid Chugunov, Moscow 2012.

On November 24, 2013 construction works on the part of the South Stream pipeline in Serbia were opened. It is estimated that the construction of sections will employ 20,000 people and that of Serbia will have annual revenue of \$200,000,000 from transport tariffs.

1. Gas project financing

Project financing may be defined as the raising of funds on a limited-recourse or nonrecourse basis to finance an economically separable capital investment project in which the providers of the funds look primarily to the cash flow from the project as the source of funds to service their loans and provide the return of and a return on their equity invested in the project (Finnerty, 2007, p.1).

Project finance is used for financing large infrastructure projects such as oil and gas exploration, refineries, pipelines, electric power generating facilities, mining, telecommunications, transportation etc.

The complexity of the project financing requires a large number of stakeholders. The most important stakeholders are: sponsors (oil and gas companies), commercial and investment banks, multilateral and development finance institutions, export credit agencies, insurance companies, investment funds, pension funds, hedge funds etc. Commercial bank loans are the largest source of funds for projects. Most loans are from syndicated and group of banks finance project. Multilateral or Bilateral Agency and Export Credit Agency (ECA) usually provide loans, guarantees and insurance. They finance projects located in the emerging markets, they are advisers, equity and debt provider. Commercial banks and multilaterals finance the projects of high value by using A/B loan structures.

Islamic finance is also applied in financing oil and gas projects. Islamic finance includes the distribution of profit or loss and risk between trading partners. Types of Islamic finance instruments are Sukuk, Ijarah, Musharaka Mudaraba, Murabaha and Istisna'a. Islamic finance is usually combined with traditional forms of financing.

Figure 2. Global Project Finance by Sector (US\$m)



Source: Project Finance Review Full Year 2012, Thomson Reuters, pg. 3

Project financing is based on equity financing and debt financing (loans, bonds). Equity capital is provided by sponsors and equity investors. A project may have one or several sponsors. Project sponsors are oil and gas companies, distributors, refineries etc. In addition to the sponsors, there are equity investors who provide capital by purchasing shares, but they do not manage the construction of the project. Equity capital represents about 30% of the total capital required for project finance. Given that

equity capital is not sufficient for the funding of the project, debt financing is used. Debt financing means that loans and bonds are used.

2. Project company - Special Purpose Vehicle (SPV)

Project financing is done through the project company. The founders of the project company are sponsors of the project. The project company is a separate legal entity - Special Purpose Vehicle (SPV). The purpose of establishing the SPV is to raise capital for the project. SPV collects the capital from sponsors, from the issue of shares and bonds and from taking bank loans.

Commercial bank loans are the largest sources of funds for projects. The collateral for project loans includes: real estate; mineral and drilling rights; lease rights; licenses, concessions; and related equipment, security interest in collections from the sale of related oil and gas (Culp, 2010). Based on the collateral, SPV issues project bonds - collateralized debt obligation (CDO).

SPV is the owner of assets and liabilities. The assets consist of future receivables, such as gas transportation agreement and contractual obligations with output purchasers. Liabilities are issued bonds and taken loans. Based on the assets, SPV issues the project CDO. In practice, it happens that the SPV is formed in order to redeem the loan taken from the bank. The sponsor of the project forms the SPV to issue bonds and buy loans from banks. Thus, refinancing at a lower interest rate is achieved. The contracts with output purchasers may be collateral for the bond issue. The existence of contractual obligations with output purchasers implies the existence of a stable cash flow. The use of SPV allows financing based on the cash flow of the project. Payment obligations on the basis of the loan, bonds, equity and expenses will be paid from the project's future cash flow.

Project finance is an off-balance sheet transaction because it is done through the funding of the project company. The use of off-balance sheet finance brings benefits for both the sponsor and the investors. The sponsor does not borrow funds directly, but via the project company. If the sponsor goes bankrupt, the receivables of the investors are protected because they will be paid from the assets in the balance sheet of the SPV. Other creditors of the sponsor have no right to charge according to the assets of the trust. The transfer of the assets to the trust protects investors from bankruptcy of the sponsors. That is why it is said that the bankruptcy of the SPV is remote.

Table 1. South Stream project companies

Country	Project company	Shareholders
Offshore section	South Stream Transport B.V.	Gazprom (50%), Eni (20%), Wintershall Holding (15%), EDF (15%)
Bulgaria	South Stream Bulgaria AD	Gazprom (50%) Bulgarian Energy Holding (50%)
Serbia	South Stream Serbia AG	Gazprom (51%) Srbijagas (49%)
Hungary	South Stream Hungary Zrt	Gazprom (50%), Magyar Villamos Művek MVM) (50%)
Croatia	-	Gazprom, Plinacro
Slovenia	South Stream Slovenia LLC	Gazprom (50%), Plinovodi (50%)
Austria	South Stream Austria Gmbh	Gazprom (50%), OMV (50%)
Greece	South Stream Greece S.A.	Gazprom (50%), DESFA (50%)

Source: *South Stream – new chain in the European energy security structure Leonid Chugunov Moscow, 2012*

Intergovernmental agreements relating to the construction of the pipeline include the establishment of the project company between the project sponsor and the countries through which the pipeline passes. Gazprom established project companies with each country through which the South Stream pipeline passes. In November 2009 Gazprom and Srbijagas formed a joint venture South Stream Serbia AG in which Srbijagas has a share of 49 percent, while the Russian Gazprom holds 51 percent of the shares. The headquarters of the company South Stream Serbia AG are in Switzerland.

South Stream Serbia AG is a project company that should provide financing for the part of the South Stream pipeline through Serbia. It is estimated that the construction of the South Stream pipeline section in Serbia will cost €1.9 billion. In reality, about 30% of the equity capital will be given partly from sponsors, which are, in this case, Gazprom and Srbijagas. Regarding the business performance of Srbijagas it is not realistic to expect that the company will be able to participate in financing the project. South Stream Serbia AG may issue shares, but this would change the ownership structure. It is also possible that Serbia borrows the capital to finance the pipeline. For example, Chad–Cameroon Petroleum Development and Pipeline Project involved the construction of the 1,070 km of the pipeline to transport oil to the facilities on the coast of Cameroon. Two project companies were established – Tchad Oil Transportation Company (TOTCO) and Cameroon Oil Transportation Company (COTCO). The International Bank for Reconstruction and Development (IBRD) provided loans to Chad and Cameroon to finance the project pipeline companies.

Financing the South Stream will mostly be done through debt: loan and/or issuing bonds. It is expected that the Russian banks Sberbank and Gazprom Bank will approve the loans, but it is reasonable to expect the participation of other international commercial banks, multilateral and bilateral agencies and export credit agencies.

Gazprom's North-Stream pipeline was financed by shareholders, banks and credit institutions from a syndicate of 26 banks in Phase 1 and 24 banks in Phase 2. Export credit agencies Euler Hermes, Sace and UFK provided guarantees.

Another possibility is that the banks, which are providing loans for the construction of pipelines, can sell these loans when the construction of the pipeline is over. The loans would be purchased by the trust South Stream Serbia AG and the money would be collected through the issue of bonds. By purchasing the loans, the SPV would become the owner of the cash flow of the loan and hold it in the balances sheet until maturity. As it collects the instalments of the loan, it settles the obligations to the investors who bought the bonds.

It is also possible to use a two-tier structure, which involves the use of two SPVs. For example, East Cameron Gas Sukuk transaction is based on a two-tier structure. The SPV based in Delaware purchased the assets, and the second SPV located in the Cayman Islands issued the bonds. (East Cameron Gas Sukuk: A New Sukuk Innovation Comes To Market, BSEC Bemo Securitisation SAL, 2006, p. 2)

3. Structured project finance

Structured finance is based on the issue of several tranches of bonds with different risk and return – collateralized debt obligation (CDO). Project finance involves the issue of project finance CDOs that are backed by project loans, lease and future receivables. The issue of the project finance CDO enables the transfer of the risk to the financial market. The investors buying the project finance CDOs have access to a diversified portfolio. Collateralized debt obligations (CDO) have more tranches of bonds with different risk and return. Therefore these securities are easier to sell. There are also differences between CLO and CBO depending on the collateral. Collateralized loan obligations (CLOs) are issued on the basis of the loan, whereas collateralized bond obligations (CBOs) are issued on the basis of the bonds. The project company South Stream Serbia AG may issue project finance CDOs. Multilateral or Bilateral Agency provides credit enhancements or guarantees for bonds issued by the SPV. The bonds receive a higher rating, so the interest rate paid to investors is lower.

The assets for securitization can be a single project loan or different project finance loans. If the collateral is single project loan then it is a single asset securitization. In 1996, an Argentine company Transportadora de Gas del Norte S.A. (TGN) carried out single asset securitization. International Finance Corporation (IFC) approved a loan to TGN, which is then sold to the SPV that issued bonds backed by the IFC loan. Credit Suisse First Boston made the first CLO transaction backed by project finance loans in March 1998 (Project Funding Corp. I). Collateral for notes was pool of 41 project finance loans. South Stream Serbia AG may issue project finance CDO on the basis of one or more loans.

There are true sale and synthetic securitization. True sale securitization implies that the assets are owned by the SPV. In synthetic securitization assets are not included

in the balances sheet of the SPV, but the risk is transferred to the investors. By using credit default swaps (CDS) the risk of the assets, and not the ownership of assets, is transferred. The buyer of the protection buys the guarantee to protect against credit risk, because it may happen that the borrower fails to meet its obligations. The seller of protection may be monoline insurer, bank or SPV. Protection seller is willing to take a risk, and the service gets a commission. The buyer of the protection (the bank that approved the loans) performs credit default swaps (CDS) with the protection seller. The protection seller gets commission for this service and if it comes to defaults it is obliged to compensate the damage. Protection seller will issue tranches of collateralized loan obligations (CLO), which sells to investors and buys high-quality securities from the collected funds. It took a risk, but transfers it to investors over tranches of collateralized debt obligation (CDO). If there is a credit event, the protection seller pays according to the agreement, and then forwards the loss to investors in line with the seniority of tranches. The first such transaction was Depfa's securitization of its 25 project finance loans closed in 2004. The Depfa Bank entered into the transaction to transfer risk to KfW Förderbank. KfW sold credit protection to Depfa. SPV Essential Public Infrastructure Capital Plc (EPIC) issues six classes of bonds. On the other hand, SPV purchased credit-linked notes (CLN) from KfW Förderbank. KfW invested the CLN issue proceeds in marketable securities. CLN were issued in six classes that were exactly matched in size and subordination to the six classes of FRNs issued by the SPE. In addition, KfW enters the super-senior swap with Ambac Assurance (Forrester, 2010, p. 3).

Synthetic securitization may be used by the banks to approve loans for the construction of the South Stream pipeline. Therefore, banks can protect themselves against credit risk that South Stream Serbia AG will not pay off the loans. Bank lenders can use credit default swaps to purchase protection from another bank or insurance company.

Future-Flow Securitizations provide funding based on the revenues that will arise in the future. Future flows securitization enables the elimination of sovereign risk, using the offshore SPV. SPV can issue bonds according to the collateral that will arise in the future. Future receivables from gas transportation agreement and contractual obligations are guarantees to the investors that the obligations towards them will be fulfilled. The funds raised from the sale of SPV bonds are used to finance the production, pipeline construction, etc. Mexico is among the first countries that made securitization based on future cash flow and the sale of crude oil. The company Pemex sells crude oil, whereas Pemex Finance Ltd. is an offshore trust to issue bonds. Collateral for bonds are contracts with buyers of oil making payment to an offshore account. South Stream Serbia AG may enforce future-flow securitizations. The funds collected from the sale of bonds can be used for the construction of the pipeline. The profit that will be realized in the future after the completion of the pipeline will be used to pay the investors. The collateral for future-flow securitizations may be gas transportation agreement. After the construction of the pipeline cash flow from the

transport tariffs will be achieved. Alternatively, the collateral is contractual obligations of Srbijagas with gas consumers. The contracts are collateral because they are proof that the gas will be distributed and paid for.

4. Islamic finance

Islamic finance has enabled the financing of major projects in the energy sector, including the Dolphin Gas Project. Dolphin Gas Project involves the production and processing of natural gas from Qatar to the United Arab Emirates. Qatar's Ras Laffan Industrial City is the largest single-build plant of its type in the world.¹ Dolphin Energy Ltd. (DEL) The project consists of several phases. The first phase started in 2005 and it was financed by 25 banks which provided \$3.45 billion, out of which \$1 billion was collected by the issue of Ijarah and Istisna.

South Stream pipeline may be financed by investors from Islamic countries. Islamic financial instruments make it possible to meet the needs of issuers, but also to comply with the requirements of investors from Islamic countries. In view of the liquidity of the Islamic world and their involvement in the activities of oil and gas, it is not unrealistic to expect that a portion of capital will be raised through the sale of bonds to these investors. Thus, South Stream Serbia AG can take advantage of the investors from the United Arab Emirates, particularly the company Mubadala, which is already present in Serbia. Mubadala Development Company operates in the field of metals and mining, real estate, healthcare, information and communications technology, semiconductors, aerospace and oil and gas. Mubadala Development Company is the majority shareholder of Dolphin Energy Ltd. (DEL) with 51 percent.

Conclusion

South Stream pipeline is a cross-border pipeline that will enable the transport of gas from Russia to Italy. The bilateral agreement between Serbia and the Russian Federation foresees the construction of a gas pipeline in the territory of Serbia (411 km), construction of warehouses at Banatski Dvor and Nis-Dimitrovgrad South Stream pipeline will primarily enable continuity of gas supply, as well as the collection of tariffs for gas transport through Serbia. The joint project company South Stream Serbia AG was established, and its shareholders are Gazprom and Srbijagas. The headquarters of the company South Stream Serbia AG are in Switzerland. The construction of the South Stream pipeline section in Serbia will cost €1.9 billion. The detailed information about financing South Stream pipeline is not known, except that Gazprom Neft and Russian banks Sberbank and Gazprom Bank will finance the pipeline.

In reality, about 30% of the equity capital will be given partly from sponsors, which are, in this case, Gazprom and Srbijagas. In view of the business performance of Srbijagas it is not realistic to expect that the company will be able to participate in financing the project. South Stream Serbia AG may issue shares, but this would change

¹ www.treasurers.org

the ownership structure. It is also possible that Serbia borrows the capital to finance the pipeline. Financing the South Stream will mostly be done through debt: loan and/or issuing bonds. It is expected that the Russian banks Sberbank and Gazprom Bank will approve the loans, but it is reasonable to expect the participation of other international commercial banks, multilateral and bilateral agencies and export credit agencies. South Stream Serbia AG may issue project finance CDO. The issue of project finance CDO attracts different investors. It could be very useful to use Islamic finance, which has a prominent role in financing the sector of energy.

Synthetic securitization may be used by the banks which are to approve loans for the construction of South Stream pipeline. Therefore, banks can keep the loans approved, but also to protect themselves against credit risk in case South Stream Serbia AG fails to pay off the loans. Bank lenders can use credit default swaps to purchase protection from another bank or insurance company.

South Stream Serbia AG may enforce future-flow securitizations. The funds collected from the sale of bonds can be used for the construction of the pipeline. The profit that will be realized in the future after the completion of the pipeline will be used to pay the investors. The collateral for future-flow securitizations may be gas transportation agreement.

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Résumé

The construction of the South Stream pipeline aims to enable the transport of gas from Russia to Italy. The aim of this paper is to present methods of financing of the pipelines that are applied in the world and to point out the possibility of funding the South Stream pipeline. Project finance enables capital raising and allocation of risk between

investors. The complexity of project finance requires a large number of stakeholders. The most important stakeholders are sponsors, commercial and investment banks, and multilateral development finance institutions, export credit agencies, insurance companies, investment funds, pension funds, hedge funds etc. The major investors are commercial banks, multilateral and bilateral agencies and export credit agencies (ECA). Islamic finance can also play a significant role in the financing of the oil and gas project.

Project financing is based on equity financing and debt financing (loans, bonds). Equity capital is provided by sponsors and equity investors. Since the equity capital is not sufficient for the funding of projects, debt financing is used. Project financing is done through the project company. The project company is a separate legal entity – Special Purpose Vehicle (SPV). SPV issues project CDOs and take loans. The collateral for the SVP is project loans, lease, future receivables from the sale of gas, future receivables from the transportation tariffs. The issue of project CDO enables the transfer of risk to the financial market. CDOs have several tranches of bonds with different risk and return. The assets for securitization can be single project loan or different project finance loans. If the collateral is single project loan then it is the case of single asset securitization. There are true sale and synthetic securitization. In the case of true sale securitization the assets are owned by the SPV. In the synthetic securitization the assets are not included in the balances sheet of the SPV, but the risk is transferred to investors by banks or insurance companies. By using credit default swaps (CDSs) the risk is transferred without the change of the ownership of the assets. Gazprom formed project companies with every country through which the South Stream pipeline passes. It has been announced that Gazprom and Russian banks Gazprombank and Sberbank will participate in financing the South Stream pipeline through Serbia. The project company South Stream Serbia AG can raise capital from sponsors, or it can take loans from banks and issue collateralized loan obligations (CLOs).