

PULKOVO AIRPORT EXPANSION PROJECT¹

A lot was riding on the International Finance Corporation's (IFC) final vote to approve debt financing for the Pulkovo Airport expansion project in St. Petersburg, Russia. The project plan called for complete modernization of the airport's dilapidated Soviet-era facilities and construction of a new terminal. It was April 15, 2010, and following years of careful due diligence, IFC's Board of Directors believed it had a comprehensive understanding of the deal's potential benefits and risks.

As Pulkovo had already reached capacity years before, IFC's financing of the project would help stimulate development by alleviating a key bottleneck in the local economy and facilitating the city's goal of becoming a major transport hub. On a wider scale, Pulkovo would be the first true Public Private Partnership (PPP)² deal in Russia and if successful, IFC believed Pulkovo could serve as a model for other infrastructure projects throughout the country.³ This was important given Russia's urgent need to upgrade infrastructure and diversify its commodity-dependent economy.

Some investors, however, expressed doubts about the adequacy of Russia's legal framework for such investments and highlighted the political and other risks that accompanied investing in the country's infrastructure sector. The IFC would have to review conclusions from the mounds of research conducted over the previous years to ensure the business case was viable.

To complicate matters, the IFC was simultaneously deciding whether to participate in a controversial Moscow-St. Petersburg highway project in which environmental opponents had been provoked. The IFC wanted to avoid participation in controversial projects at all costs: had it adequately vetted all of Pulkovo's risks?

Pulkovo Airport⁴

Located twelve miles south of the city center, Shosseynaya Airport, as it was originally known, began operations in 1932 with its first passenger flight to Moscow. Year-round operations commenced shortly thereafter and continued until the onset of hostilities with Nazi Germany in World War II, when

¹ This case was prepared by James Lewis, Vanida Wongdecharekul, Ben Freeman, Ifat Wong, and Elisabeth Cai under the supervision of Professor Andrew Karolyi. It was written as a basis for class discussion rather than to illustrate effective or ineffective handling of an administrative situation. All rights reserved. *To order copies, send an email to gak56@cornell.edu. No part of this case study may be reproduced, stored in a retrieval system, used in a spreadsheet, or transmitted in any form or by any means – electronic, mechanical, photocopying, recording, or otherwise – without the permission of Andrew Karolyi.* The original version is dated March 14, 2011; current version is dated April 8, 2015.

² In this case, a public private partnership is defined as non-governmental entities providing financing and services for an asset—often in the infrastructure sector—in cooperation with the government. PPP is described in more detail later in the case.

³ "Russia's €1.1bn Pulkovo Airport PPP reaches financial close," Infrastructure Investor 28 April 2010.

⁴ See Pulkovo Airport 2009 Annual Report.

approaching enemy troops began their 900-day siege of the city. The airport ceased operations due to its proximity to the front lines and the frequent air raids, reopening only after the German retreat.

After war damages were repaired, flights resumed and shortly thereafter the airport was serving 30 destinations within the Soviet Union. As traffic increased, a new terminal—the Pulkovo-1 domestic passenger terminal—was constructed in 1973, when the airport was renamed. Although the quarters of Pulkovo-1 appear cramped and stale today, it once boasted some of the most advanced technical ideas of the time, such as separate halls for arriving and departing passengers. Built in high Soviet modernist style, it is referred to endearingly by locals as the “steamship”⁵ for its unique tubular roof and is today considered an architectural icon of the Communist era.⁶ See **Exhibit 1** for a photo of the terminal.

With the new terminal’s added capacity, traffic increased rapidly in the following decades and peaked in 1990. Airport traffic tends to correlate closely with GDP,⁷ and Pulkovo’s operating results closely mirrored the economic turmoil following the Soviet Union’s dissolution and subsequent recovery. During the past few years, with the economy rebounding, Pulkovo has been unable to meet demand during peak times due to insufficient terminal capacity.⁸ See **Exhibit 2** for historical passenger data.

Having served 6.7 million passengers in 2009, Pulkovo was the fourth busiest Russian airport in passenger traffic behind Moscow’s three main airports. It is the only airport in the St. Petersburg area capable of providing regular passenger operations. The neighboring Baltic airports of Tallinn and Riga are smaller and while Helsinki is larger than Pulkovo, all are disadvantaged by customs air traffic regulations for passengers seeking entry to Russia (see **Exhibit 3** for map of competing airports).

Moscow, Russia’s capital and most important city accounting for about a quarter of the entire country’s GDP, was Pulkovo’s most important destination; for almost 2 million passengers, or 28% percent of total traffic, Pulkovo was either a starting point or a destination in 2009. Pulkovo’s next closest domestic destination in terms of passengers saw one-tenth of the traffic compared to the Moscow route.

Pulkovo’s passenger traffic is split evenly between international and domestic destinations. A total of 42 international airlines and 29 Russian airlines served 130 regular destinations in 2009. Rossiya Russian Airlines, a state-owned regional airline with its hub at Pulkovo, accounts for 43% of the airport’s passenger traffic—see **Exhibit 4** for relevant data. Rossiya has been struggling amid heavy competition and the government has announced that it will merge the airline, along with a number of other regional carriers, into Aeroflot, Russia’s largest airline. The merger is expected reach completion by the end of 2010 or early 2011.⁹ Aeroflot, which is 50% state-owned, will control 30-35% of the country’s domestic air traffic following the planned mergers.¹⁰

Before the financial crisis affected Russia, the Russian air transport sector was one of the fastest growing in the world. Between 1999 and 2008, passenger traffic grew by 130% to 45.1 million. While traffic declined sharply the following year, certain factors bode well for continued growth, such as a relatively low number of international routes, which current liberalization intends to change, and Russia’s

⁵ Based on one of the case writers’ phone interview with St. Petersburg native and amateur historian Konstantin Sedov on 6 March 2011.

⁶ EBRD - Modernising Pulkovo Airport, St. Petersburg, EBRD press release 30 April 2010.

⁷ Hong Kong International Airport Air Traffic Demand Forecast: GDP Forecast. See http://www.hkairport2030.com/en/information/pdf/mp2030_TR/TR_24May_Eng_Ch2.pdf.

⁸ “Pulkovo Vies to Become International Hub by 2025,” *Airport Business* March 2009.

⁹ Rossiya Airlines. August 11, 2010. <http://siberianlight.net/russiaguide/rossiya-airline/>.

¹⁰ “Russia to Corporatize Rossiya Air Carrier, Merge with Aeroflot,” *RIA Novosti* 2 Feb 2010.

huge land mass, making air travel economical. There are heavy market access restrictions and regulations on international routes, complicating market entry for potential new entrants.¹¹

The City Government of St. Petersburg has stated that modernizing and expanding Pulkovo is a strategic investment priority. It hopes to make St. Petersburg a top five European tourism destination, for which additional airport capacity and routes will be essential. Expansion will also be instrumental in promoting regional economic growth. City authorities foresee Pulkovo eventually becoming an international hub capable of competing with Moscow airports, particularly for European passengers seeking entry to Russia.

St. Petersburg

St. Petersburg is Russia's second largest city with a population of roughly six million people. Peter the Great, Czar of the Russian Empire and one of the nation's most important modernizers, founded the city in 1703 and intended it to be a "Window on the West" given its proximity to Europe (at the time Europe was considerably more advanced than Russia). Peter was determined, at great human and material expense, to build the city rapidly and turn it into a symbol of modern Russian power.

St. Petersburg today retains many elements of Peter's vision. Still benefiting from its proximity to northern Europe, the city has developed into an important transport center with international railway connections and a major seaport with access to the Baltic Sea. It is also one of the country's major industrial, commercial and trade centers. Companies in St. Petersburg trade with over 180 countries and a significant number of international companies operate manufacturing facilities in the region.

With major sites such as the Hermitage (the former royal palace, now one of the world's great art museums), St. Petersburg is Russia's most visited city and one of the top ten most visited cities in Europe with over 4.6 million visitors in 2009.¹² It is often referred to as the "Venice of the North" for its intricate network of water canals.

Because of the city's importance, a high-speed rail connection with Moscow began operation in 2008, with trains capable of completing the trip in less than four hours. A new highway linking the two cities is also being constructed and is scheduled to be completed in 2014.¹³

Economic Growth, Investment Climate and Infrastructure in Russia

German Gref, Russia's Minister of Economic Development and Trade, stated that the country's infrastructure spending would need to exceed \$1 trillion to keep pace with demand.¹⁴ How did such an "infrastructure gap" appear? The problem became acute when Russia inherited already aging infrastructure assets following the Soviet Union's dissolution in 1991. A turbulent transition period followed, and while the economy began recovering years later, a simultaneous sovereign default and currency devaluation in 1998 spurred a new crisis. As a result, investment dried up and infrastructure fell into a state of worse disrepair. See **Exhibit 5** for Russian GDP growth data.

A steady recovery began the following year as rising commodity prices pushed the country's federal budget into surplus (Russia is a major commodity exporter: mostly oil); natural resources account for roughly 80% of all exports. There is a strong relationship between world oil prices and Russian GDP

¹¹ Cathy Bucyk, "Old Habits are Hard to Break," [Air Transport World](#) 1 January 2011.

¹² Fraport AG company press release, 24 November 2010.

¹³ Construction of Moscow-St Pete toll road to start October.

¹⁴ "Putin Seeks Private Airport Investors," [Moscow Times](#) 8 July 2010.

growth.¹⁵ However, with the onset of the financial crisis and declining commodity prices in 2008, Russia experienced its first budget deficit in 2009 after nine straight years of surplus.¹⁶ With deficits expected to continue in the coming years, the government will find it difficult to finance its infrastructure needs and has signaled its hopes that private (and particularly foreign) capital will play a major role in the future.¹⁷

In terms of corruption and political risk for investors, Russia has room for improvement. According to Transparency International's Corruption Perceptions Index, Russia ranked 146th¹⁸ and was considered to be "High Risk" by Economist Intelligence Unit's Political Instability index.¹⁹ A reputable risk management advisor ranked it the 20th riskiest country in the world to do business.²⁰

Despite these concerns, by April 2010 Russia was already recovering from the world financial crisis. Oil prices had almost tripled from crisis lows to around \$85 per barrel²¹ and the International Monetary Fund (IMF) was forecasting an average of 4% annual GDP growth for Russia between 2010 and 2014.²²

The International Finance Corporation

IFC is a member of the World Bank Group: a major international financial institution (IFI) founded in 1944 to alleviate poverty in developing countries. IFIs are not banks, but rather entities that receive their capital from more than one country and often have non-commercial goals, such as alleviating poverty.

The World Bank Group receives its capital from over 180 countries and is comprised of five entities with distinct missions. While some of these entities provide subsidized loans and assistance to the world's poorest countries, IFC focuses on promoting sustainable private sector growth in developing countries through investment and advisory services. IFC coordinates its operations with other World Bank Group members but is legally and financially independent. It had \$43 billion in assets in 2009 and triple-A ratings from all three international rating agencies. An overview of IFC's funding activities can be found in **Exhibit 6**.

To achieve its mission, IFC applies a number of funding criteria not typically employed by commercial banks. For instance, to receive funding, a project must have demonstrative benefits to the local economy and be environmentally and socially sound. If a project's criteria are satisfied, IFC might provide a number of debt financing products such as loans from its own account, syndicated loans, equity investments, securitizations, partial credit guarantees, risk management products and other derivatives.²³ According to the 2009 summary balance sheet, loans and equity investments made up 36.6% and 14.6% of average assets.²⁴ It also makes occasional small equity investments. In addition to generating a profit

¹⁵ "Russia Fixed Asset Investment to Reach \$370 billion by 2010 – Kudrin," RIA Novosti 21 9 2007.

¹⁶ Sergei Aleksashenko, "Russia's Budget Dilemma," Carnegie Endowment for International Peace International Economic Bulletin 19 May 2010.

¹⁷ Philip Alexander, "Russia Infrastructure Building Momentum: New State Funds and Laws Are Allowing Russia's Ailing Infrastructure To Catch Up With Its Fast-growing Economy," The Banker 1 Oct 2008.

¹⁸ Corruptions Perceptions Index 2009, Transparency International.

¹⁹ Political Instability Index 2009, Economist Intelligence Unit.

²⁰ According to Maplecroft, an England-based risk-management adviser, as reported in "Pulkovo Airport Financing for Expansion Twice as Expensive as Peers," St. Petersburg Times Russia 30 July 2010.

²¹ U.S. Department of Energy website (www.energy.gov).

²² World Economic Outlook Database, International Monetary Fund April 2009 edition.

²³ See details on IFC Financing at <http://www.ifc.org>.

²⁴ Moody's Credit Analysis: International Finance Corporation. June 2010.

on its investments, IFC seeks to encourage participation from private banks and investors since its presence in a project is viewed as mitigating political risk.

Russia has grown to be one of IFC's largest country exposures since the organization entered the country in 1993. Since then, total investments have surpassed \$5 billion (including \$1.5 in syndicated loans), making Russia the fourth-largest country exposure for the IFC. IFC's Russia strategy is to focus on a number of key sectors, one of which is infrastructure. It also seeks to contribute to greater economic diversification away from dependence on natural resources.²⁵

The Tender Process

City and airport authorities chose a public private partnership (PPP) structure to mobilize financing for Pulkovo's expansion. PPPs allow private investors and operators to provide financing and services for a public sector authority and are often used to fund infrastructure projects. The model presents an attractive alternative to governments willing to cede some or all control over a public asset to attract financing, which in turn alleviates public deficits and allows the government to benefit from private sector efficiencies.

In the case of Pulkovo, as is typical in PPP deals, the government does not provide any investment guarantee; providers of funds are repaid solely by generated cash flows. Investors have no recourse to the project sponsor's non-project cash flows or assets.²⁶ A private partner is selected to build, maintain and operate the asset over a specified period of time.

A competitive bidding process is often conducted to screen potential private partners. St. Petersburg city authorities began this process in April 2008 by declaring a tender for a major contract to renovate, expand and operate the airport. The winner of the tender would modernize the existing airport infrastructure. The landmark exterior of Pulkovo-1 was to be preserved, while the interior would be completely revamped.

A new 100,000 square meter (m²) terminal for international and domestic flights with 20 gates as well as a hotel, business center and parking facilities were to be constructed nearby by 2013.²⁷ With the new terminal, Pulkovo's capacity would expand to 22 million passengers per year.²⁸ Total project cost was estimated at €1.2 billion. The winner would also operate the airport, including both aviation and non-aviation activities, for a period of 30 years.

The tender process was carried out over the following year. Nine parties, most of which were consortia comprised of investors such as banks or investment funds partnering with airport operators, expressed initial interest. Major contenders submitting bids as part of consortia included Macquarie Renaissance, Germany's Hochtief and the pension fund of Russia's energy monolith, Gazprom.²⁹

In July 2009, following a thorough selection process, the Governor of St. Petersburg signed a memorandum of understanding for the Pulkovo project with the Northern Capital Gateway (NCG) consortium. The declaration of intent was signed in the presence of German Chancellor Angela Merkel

²⁵ For details of IFC in the Russian Federation.

²⁶ Benjamin Esty and Irina Christov, "An Overview of Project Finance - 2001 Update," [Harvard Business School Project Finance Portal](#) 4 April 2002.

²⁷ Anatoli Temkin and Nadezhda Zaitzeva, "Pulkovo s aktzentom," [Vedomosti](#) 9 Feb 2011. (Anatoli Temkin & Nadezhda Zaitzeva, "An Emphasis on Pulkovo" [Statements](#) 9 Feb 2011)

²⁸ "Pulkovo Airport Contract Awarded," [Business Monitor Online](#) 26 June 2009.

²⁹ "Pulkovo Airport Contract Awarded," [Business Monitor Online](#) 26 June 2009.

and Russian President Dmitri Medvedev.³⁰ NCG consisted of the following members (equity stakes in parentheses):

(1) VTB Capital (50%) is one of three strategic business arms of the state majority-owned VTB Group and is one of Russia's largest investment banks. VTB Group conducted an IPO in 2007 offering a 22.5% stake to the public that raised \$8 billion.

For a number of years, VTB Capital had been aggressively expanding its infrastructure business, was one of Russia's leaders in volume of infrastructure projects, and had backing from the Russian state. VTB Capital was headquartered in Moscow and had offices in London, Singapore and Dubai. At year end 2009, VTB Group had \$120 billion in assets under management.³¹ The bank would serve as the consortium's financial advisor for the project.

(2) Fraport AG (35.5%) is a public German airport operating company with 11 management contracts located around the world and decades of related expertise. Its contract portfolio includes airport operations, management and consulting services as well as terminal management, retail and real estate management and ground services. While Fraport has diverse experience operating in countries like China and Peru, it has less experience with managing large projects in other emerging markets like Russia.

Fraport would be responsible for Pulkovo's main airport operations and would supply a COO, CFO and other operational experts. The company would also play a role in planned construction. Fraport's revenues in 2009 were about €2 billion and maintained a strong balance sheet.³²

(3) Koltseva Holdings Ltd (7.5%) and Horizon Air Investments SA (7%): the former is a Cypriot investor and the latter the investment arm of Greece's private Copelouzos Group conglomerate. Copelouzos has construction expertise but little airport involvement to date. Both of these firms seek investments in the international airport market.

Final agreement between the parties was signed in October 2009. NCG was scheduled to take over Pulkovo's operations in May 2010 with renovations to begin later in the year. An EPC (Engineering, Procurement and Construction) contractor would be selected in due course to construct the new terminal.

Deal Financing Structure

Of the roughly €1.2 billion being invested in the project, NCG would contribute initial equity capital amounting to €440 million. IFC, together with EBRD (European Bank for Reconstruction and Development), had initially expressed interest in lending to the project in August 2008 during the tender process.³³ IFC often partnered with EBRD, a major regional international financial institution (IFI) with a similar organization mission and capital base of €20 billion, on various financing projects in Eastern Europe.³⁴ Also expressing interest in providing debt financing was the Russian state bank Vneshekonombank (VEB).

³⁰ "Fraport AG Signs MOU for Airport Concession in St. Petersburg," *ETN Global Travel Industry News* 16 July 2009.

³¹ See VTB Bank Consolidated Financial Statements and Auditors' Report for the years ended 31 December 2009 and 2008 available at www.vtb.com.

³² Fraport AG company website (www.fraport.com).

³³ "IFC, EBRD and VEB Ready to Credit Upgrade of Pulkovo Airport," EBRD press release, 8 August 2008.

³⁴ See EBRD website (www.ebrd.com).

Negotiations progressed, and as the tender came to a close and more details about the deal became available, additional IFIs expressed interest. The proposed deal eventually presented to IFC's board called for IFC, EBRD, three smaller IFIs and VEB to arrange €750 million in long term debt financing. IFC and EBRD were also arranging a joint syndication of international commercial banks to provide €200 million of the total in the form of a "B loan" with a 12- year maturity. IFC would lend €70 million from its own account as an "A loan" carrying a 15-year maturity; the EBRD would directly lend €100 million of the total.³⁵ None of the debt would carry a government guarantee. **Exhibit 7** and **Exhibit 8** show the deal structure and sources and uses of funds.

While arrangements for the commercial syndication were already progressing, there was a chance that this part of the deal would collapse and the syndicate would fail to provide funding, which was one of IFC's key goals. Not only would a lack of commercial involvement diminish the project's value for future PPPs, it might also increase IFC's direct financial commitment above €70 million, already about 10% of IFC's 2008 investment total in Russia.³⁶

Financial Projections

Pulkovo generated annual revenue of just under €100 million during 2008 and 2009 (see historical data in **Exhibit 9**). The project's financial model³⁷ shows that the airport's total revenue should more than double once the new terminal is completed in 2014, given additional passenger capacity (expanded to 22 million passengers per year)³⁸ and new non-aviation revenue generation, such as parking and restaurants. Fraport's extensive airport management experience should support revenue forecasts and result in higher profitability. As a result, total revenue is expected to reach €400 million by 2020.

The project is forecasted to generate an unleveraged IRR of 30%. Expansion plans increase the present value of the airport from €275 million (base case) to €497 million after expansion (80% increase).³⁹ Debt holders would receive an interest rate about 10.6%, with the average interest coverage ratio at 7.3x. The NPV for equity holders would be €189 million. **Exhibit 10** shows summary financial model data.

The model assumes average aviation revenue of €14 per passenger throughout the project, in line with recent data for Pulkovo.⁴⁰ This is likely a conservative estimate given Fraport's potential to increase this figure, but project value is nonetheless sensitive: a €1 drop in aviation revenue per passenger results in a 15% decline in project value. A 10% decline in forecasted passengers results in a 12% drop in project value. See **Exhibit 11** for sensitivity overview.

As of June 2011, Pulkovo's new terminal is expected to be completed only within the next three years. The airport managing company has made considerable changes in its rental agreements in order for non-aviation income to account for a higher percentage of the airport's revenue. In 2009, only 16% of

³⁵ IFC employs an A/B loan structure when it syndicates a loan that it lends for its own account at the same time. In such an arrangement, IFC is the sole contractual lender for itself and B loan (syndicate) participants. There typically is a single loan agreement between IFC and the borrower for the full financing amount encompassing both A and B loans.

³⁶ See the World Bank Group website at www.worldbank.org.

³⁷ Pulkovo Airport financial and operating forecasts are confidential. The case writers have developed their own financial forecasts based on publically available information such as project capacity and historical data

³⁸ See "Pulkovo Airport Creating a Blueprint for Russian Airport Privatization," Pulkovo Airport official publication, 30 Nov 2009.

³⁹ The unleveraged valuation is independent of the actual amount of debt used to finance the project, or the terms of that debt. It measures total flows to and from project, and hence is an indication of fundamental project value.

⁴⁰ See Jacobs Consultancy 2008 airport performance indicators at www.jacobsconsultancy.com.

Pulkovo's revenue comes from non-aviation activities, considerably lower than desired (usually above 50%).⁴¹ However, Pulkovo's expansion has also led to the establishment of an Emirates-operated Dubai-St. Petersburg route starting in Nov. 2011 which promises to bring further growth and development to Russia, as was initially forecasted.⁴²

Additional Considerations

Some investors had expressed concern about Russia's statutory framework for PPPs. Russia established its PPP framework in 2005 with passage of the Federal Law on Concession Agreements (FCLA) setting forth guidelines for granting concessions in PPP deals. Following passage of the FCLA, experts noted several inadequacies compared to other countries' legislation in areas such as securing assets, step-in rights⁴³ and dispute resolution.⁴⁴ For instance, under FLCA, the title of the asset remains with the public sector in a PPP deal and the concessionaire is prohibited from pledging its rights.

To assuage these concerns, several regional bodies in Russia have promulgated more investor-friendly legislation to supplement the national framework. In 2006, St. Petersburg passed a law permitting concessionaires to transfer ownership of assets and grant security over ownership. Without this legislation, attracting IFI and commercial bank participation in the Pulkovo deal would have been substantially harder. And while a few other regions have passed similar laws, restrictions in the national legislation could hamper potential deals elsewhere in the country.

An important additional consideration for IFC was the environmental and social consequences of its investment projects. While a project study did not reveal any environmental risks atypical for an airport expansion project, it did indicate a greater likelihood for increased noise and air pollution and the potential for local opposition because of the expected doubling of airport traffic (see report summary in **Exhibit 12**). This was a particular concern given IFC's nearing decision to fund another major project: the Moscow-St.Petersburg Motorway, which was to be constructed through the Khimki Forest, a natural protected area northwest of Moscow. Upon discovering the Motorway plans in 2007, local residents and environmentalists organized an opposition movement that attracted international support. Local protests were broken up by police and three journalists covering the protests were badly beaten.⁴⁵ IFC had been in talks to finance the motorway⁴⁶ but eventually decided against participating. Such a project was exactly the kind of negative public relations it sought to avoid.

⁴¹ Anatoly Tyomkin and Maria Buravtseva, "New Pulkovo Terminal to Take 3 Years to Build," St. Petersburg Times, 22 June 2011.

⁴² Irina Titova, "Emirates Airline to Open Dubai-Petersburg Service," St. Petersburg Times, 17 June 2011.

⁴³ These refer to the sponsor's right to step in and take over the asset if the concessionaire materially breaches its obligations under the agreement.

⁴⁴ "The Road to Russian PPP is Bumpy and not without its Risks," Infrastructure Journal 2008.

⁴⁵ "Russia Convicts Injured Editor as Fears for Media Grow," BBC News 10 November 2010.

⁴⁶ Commercial Close for Moscow-St. Petersburg Motorway," Petroleum Economist July/August 2009.

Exhibit 1

PULKOVO AIRPORT EXPANSION PROJECT

Pulkovo-1 Terminal

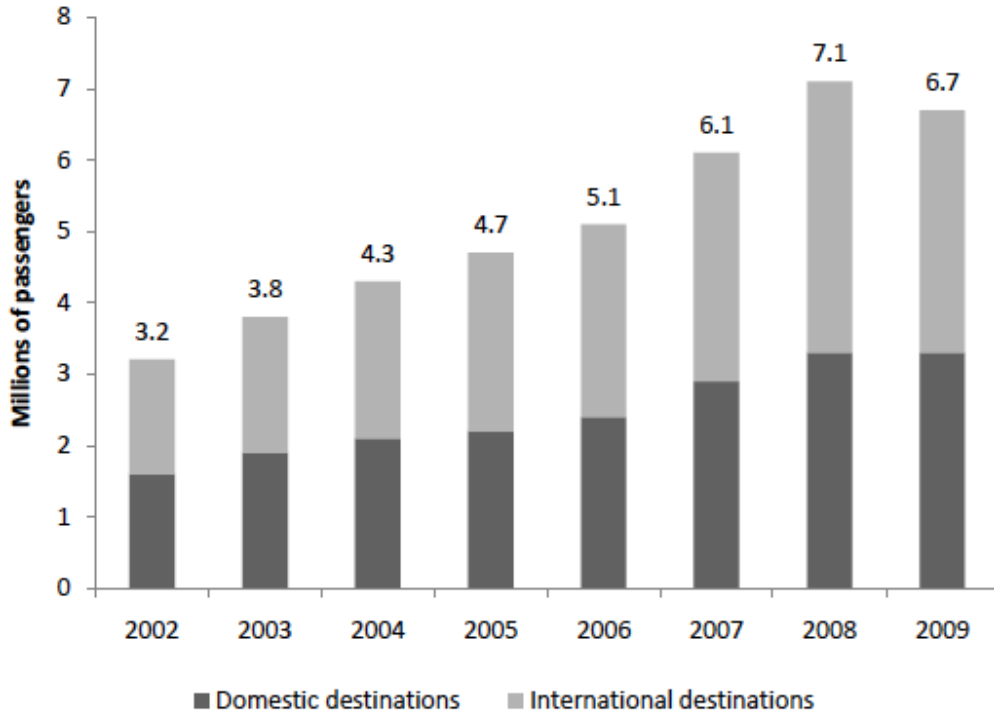


Source: Preliminary Information Memorandum -- Public Private Partnership Pulkovo Airport Expansion Project (April 2010).

Exhibit 2

PULKOVO AIRPORT EXPANSION PROJECT

Total passenger traffic at Pulkovo Airport, 2002-2009, million passengers per year

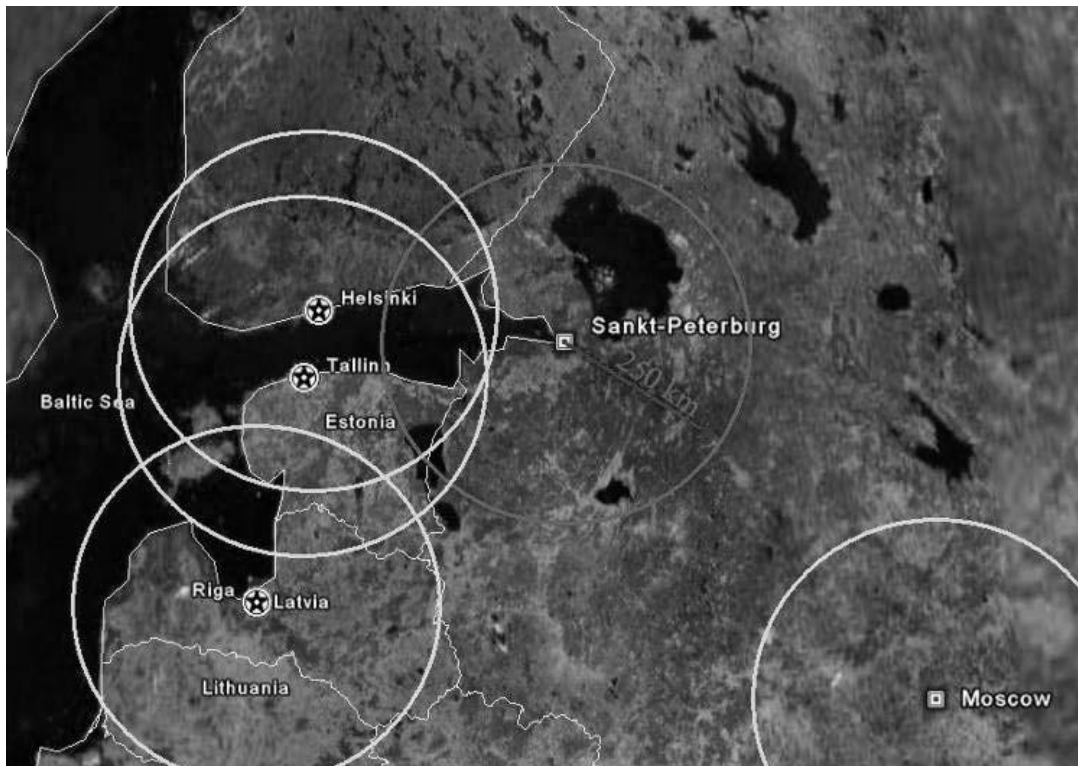


Source: Pulkovo Airport 2009 Annual Report

Exhibit 3

PULKOVO AIRPORT EXPANSION PROJECT

Map of surrounding airports

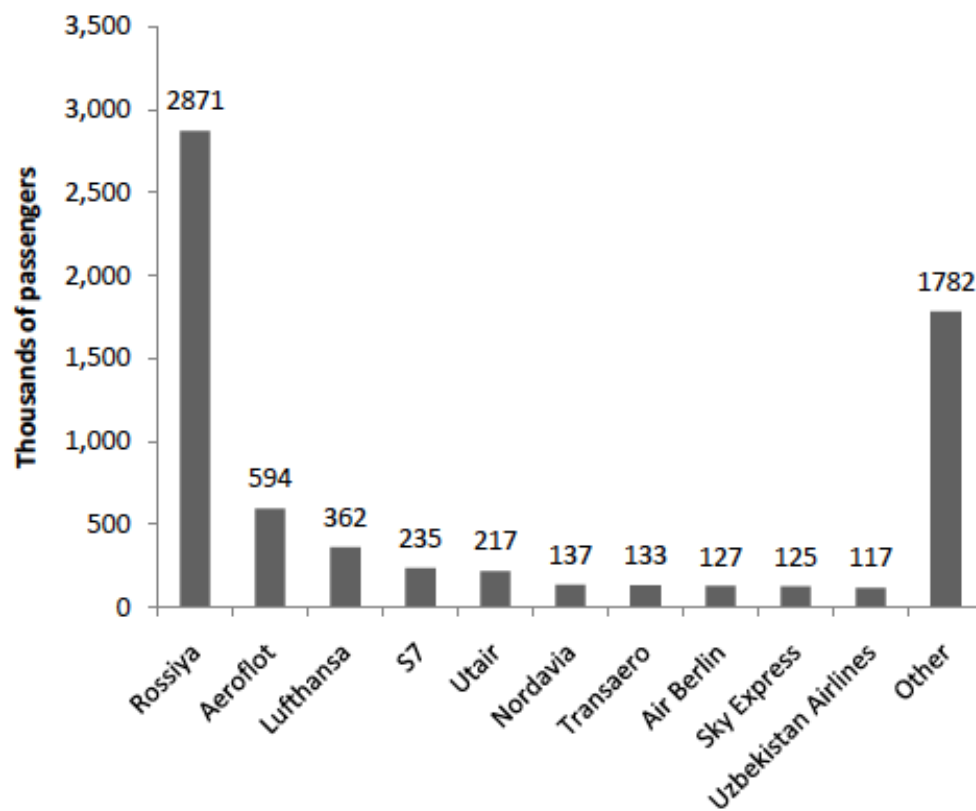


Source: Preliminary Information Memorandum -- Public Private Partnership Pulkovo Airport Expansion Project (April 2010)

Exhibit 4

PULKOVO AIRPORT EXPANSION PROJECT

Top ten airlines by passenger traffic, Pulkovo Airport, 2009

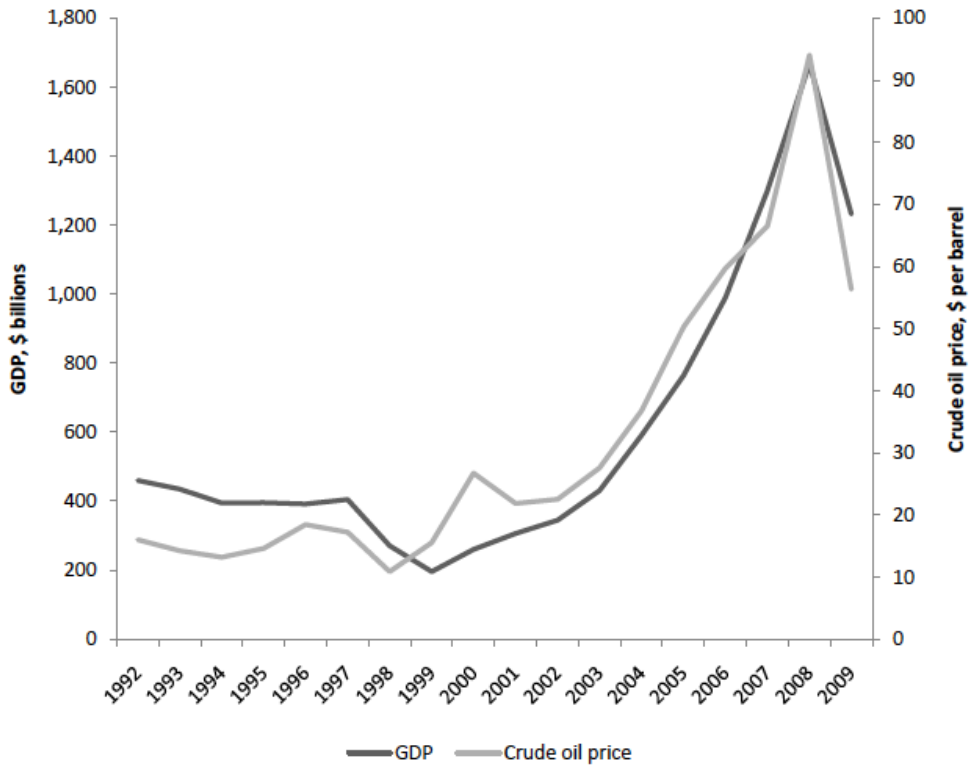


Source: Pulkovo Airport 2009 Annual Report

Exhibit 5

PULKOVO AIRPORT EXPANSION PROJECT

GDP in Russia since the fall of the Soviet Union



Source: World Bank, Department of Energy

Exhibit 6

PULKOVO AIRPORT EXPANSION PROJECT

IFC operational highlights

	AS OF AND FOR THE YEARS ENDED JUNE 30				
Dollars in millions	2009	2008	2007	2006	2005
Investment commitments					
Number of projects ¹	447	372	299	284	236
Number of countries	103	85	69	66	67
Total commitments signed ²	12,405	14,649	9,995	8,275	6,449
For IFC's own account ³	10,547	11,399	8,220	6,703	5,373
Total resources mobilized ⁴	3,964	4,752	3,887	2,817	2,125
Investment disbursements					
Total financing disbursed	7,606	9,921	7,456	5,739	4,011
For IFC's own account	5,640	7,539	5,841	4,428	3,456
Total resources mobilized	1,966	2,382	1,615	1,311	555
Committed portfolio					
Number of firms	1,579	1,490	1,410	1,368	1,313
Total committed portfolio	42,498	39,891	30,954	26,706	24,536
For IFC's own account ³	34,502	32,366	25,411	21,627	19,253
Syndication ²	7,996	7,525	5,543	5,079	5,283
Advisory Services					
Number of projects	782	862	1,018		
Approved value (\$ millions)	940.8	919.1	846.3		
AS Expenditures	290.9	268.7	196.9	151.5	122.5

¹ Includes first commitment to projects in the fiscal year. Projects involving financing to more than one company are counted as one commitment.

² From FY06, includes loan and guarantees participations.

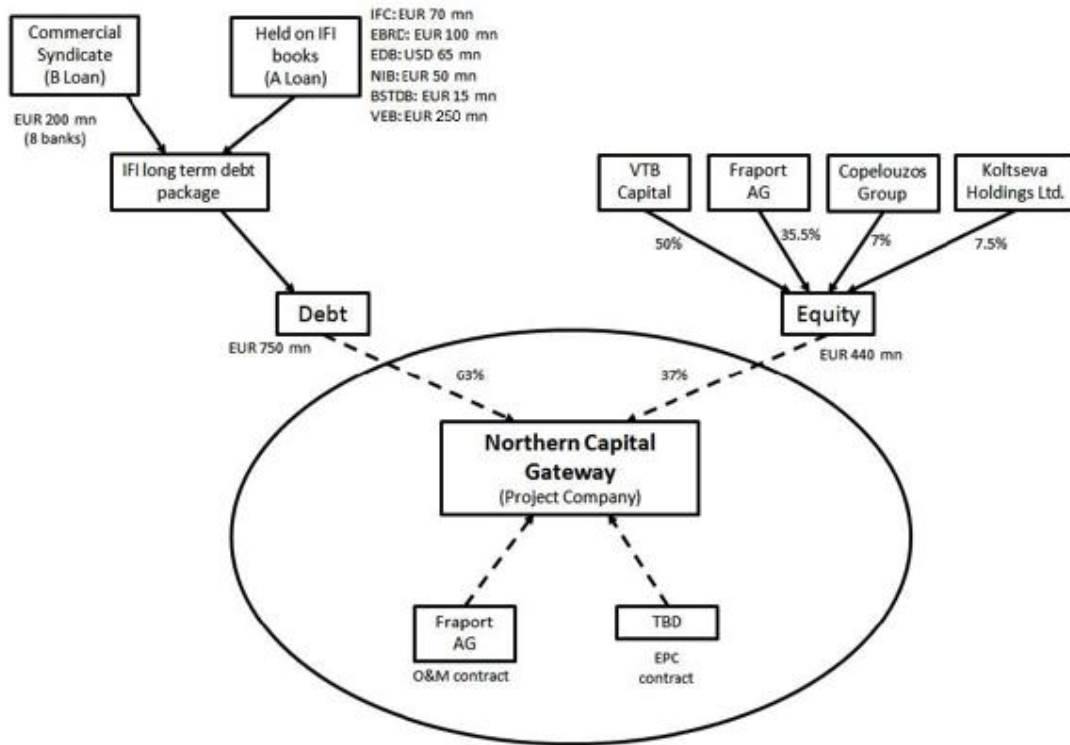
³ Includes loan guarantees and risk management products.

⁴ Includes syndications, structured and securitized products, and IFC new initiatives.

Source: IFC Annual Report 2009

Exhibit 7

PULKOVO AIRPORT EXPANSION PROJECT



Deal structure

Source: Case writers' schematic of deal structure based on publicly available sources

Exhibit 8

PULKOVO AIRPORT EXPANSION PROJECT

Financing sources & uses, in EURO millions

SOURCES:

Debt:

A Loan		
EBRD	100	8%
IFC	70	6%
EBD	65	5%
NIB	50	4%
BSTDB	15	1%
VEB	250	21%
Subtotal	<u>550</u>	<u>46%</u>
B Loan		
Commercial Syndicate	200	17%
Total Debt	<u>750</u>	<u>63%</u>

Equity

VTB Capital	220	18%
Fraport AG	156	13%
Koltseva Holdings Ltd.	33	3%
Copelouzos Group	31	3%
Total Equity	<u>440</u>	<u>37%</u>
Project Total	<u>1,190</u>	<u>100%</u>

USES:

Cost of construction	836	70%
Working Capital	354	30%
Project Total	<u>1,190</u>	<u>100%</u>

Source: Case writers' assessment of deal structure based on publically available sources

Exhibit 9

PULKOVO AIRPORT CONCESSION FINANCE

Pulkovo Airport overview historical financial data

<i>(in EUR millions)</i>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Operating revenue, including:				
Aviation revenue	62	76	92	97
Non-aviation revenue	13	14	20	19
Total operating revenue	75	90	111	116
Operating expenses, including:				
Fixed expenses	(48)	(47)	(58)	(65)
Variable expenses	(16)	(18)	(23)	(24)
Total operating expenses	(64)	(65)	(82)	(89)
Operating profit (EBIT)	11	25	30	27

Source: Pulkovo Airport 2009 Annual Report

Exhibit 10

PULKOVO AIRPORT CONCESSION FINANCE

Financial model summary

PROJECT VALUE SUMMARY

WACC	13.2%	
Unleveraged Project Value	497	EUR million
Incremental unleveraged value	222	EUR million
IRR of unleveraged project	30%	
Leveraged project value	189	EUR million
Average interest coverage ratio	7.3x	
Debt service coverage ratio	1.5x	

UNLEVERAGED NPV SUMMARY

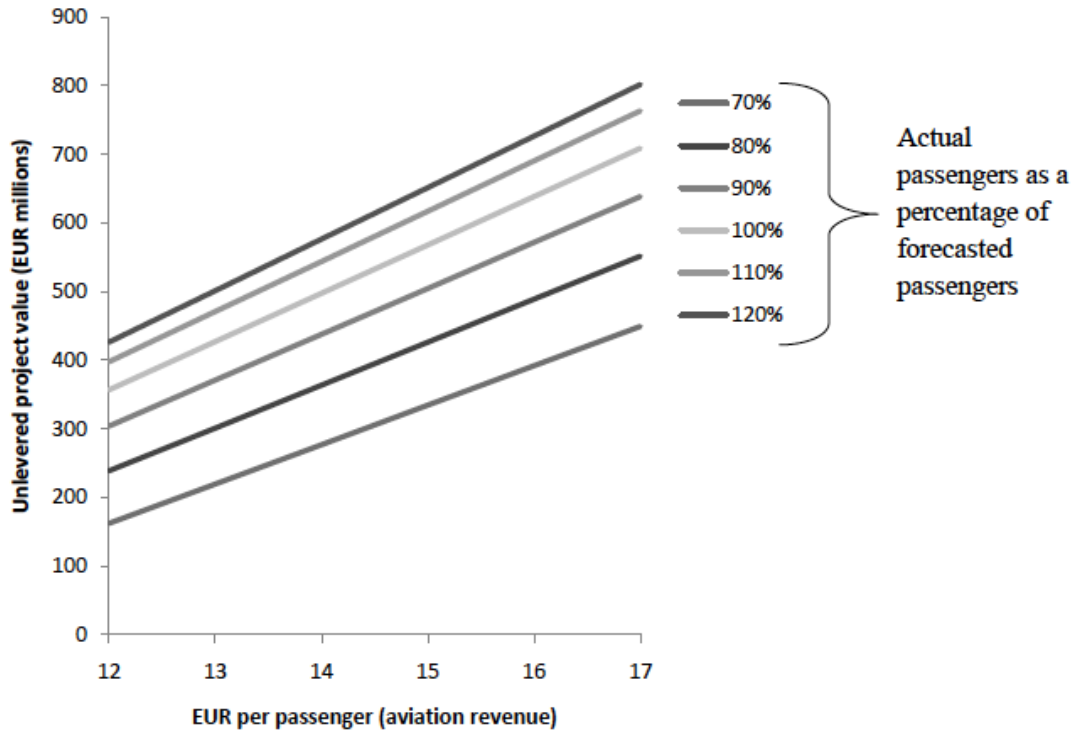
<i>After expansion</i>		<i>EUR million</i>
Unleveraged Project Value as of December 2010		546
Unleveraged Project Value as of April 2010		497
IRR of unleveraged project		30%
<i>Before expansion</i>		<i>EUR million</i>
Unleveraged Project Value as of December 2010		302
Unleveraged Project Value as of April 2010		275
Incremental unleveraged value from expansion		222

Source: Case writers' estimates.

Exhibit 11

PULKOVO AIRPORT CONCESSION FINANCE

Project sensitivity analysis



Source: Case writers' estimates.

Exhibit 12

PULKOVO AIRPORT CONCESSION FINANCE

EBRD Transition/Environmental Impact Report

Country: Russia
Project number: 39029
Business sector: Transport
Public/Private: Private
Date: 15 Feb 2010

Transition Impact

The project will support the first competitively and transparently procured airport concession in the Russian Federation, structured under the PPP Law of St Petersburg, which is expected to have a demonstration effect for other cities in Russia that may consider concessions for their airports. The concessionaire includes an airport specialist foreign company (Fraport), which could enhance the efficiency of the airport and improve the standards of service for passenger and airlines.

Additionally the project will set high standards in terms of building energy efficiency and energy management that go substantially beyond what is required under current legislation.

Environmental Impact

The Project is categorized as B/1 in accordance with EBRD's Environmental Policy 2003.

Work on the scoping of the environmental and social due diligence started in December 2008 in close association with the City of St Petersburg and their advisers. Due diligence included:

1. An Environmental and Social Analysis of the proposed project, which identified the following issues: waste and runoff water treatment, solid waste treatment, noise, sanitary protection zone. For all identified issues, the Project Company either has presented mitigations as part of its Environmental and Social Action Plan (ESAP), or will have to do so in further detail at mutually agreed deadlines as part of the implementation of the ESAP. Other issues of lesser significance were also identified and are addressed in the Environmental and Social Action Plan.
2. Development of a Stakeholder Engagement Plan, including public consultation meetings held in different areas of St Petersburg in mid January 2010.
3. Soil and groundwater investigations.

Main environmental and social risks and issues associated with the Project are as follows:

- Pulkovo airport started operations in the 1930s; as such it has significant potential for groundwater and soil contamination by hydrocarbons, solvents and other hazardous substances; this needs to be assessed as it may entail considerable liabilities to the Project Company and to the Bank
- Workforce-related risks, with potential retrenchments associated with the Project Company workforce optimizing efforts

- Environmental issues typically associated with airports: noise, de-icing, greenhouse gases, air pollution
- Permitting-related risks, particularly in respect of the Sanitary Protection Zone
- Potential for local opposition, as the Project is based on a significant expansion of the airport with the traffic expected to increase two-fold over the next 10 years.

Public consultation took place in mid-January 2010 and was organized as follows:

- 1) 19/01 noon-4pm at North-west exhibition centre, Victory square, 2, St. Petersburg
- 2) 20/01 10am-2pm at culture house "Krasnoselskiy", pr. Lenina, 2, Krasnoe Selo
- 3) 20/01 3pm-6pm at "Voshod" cinema, Pogranichnika Garkavogo str, 22/1, St. Petersburg

The public consultation exercise demonstrated significant interest in the Project and its architectural and technical characteristics from residents of St Petersburg in general and neighboring areas in particular. Main concerns are potential disruption to flights during construction, workforce evolution potentially associated with the Project, noise and air pollution (these latter being of specific concern to the residents of Krasnoselsky and Kirovsky districts, who request potential optimization of approach routes to be investigated by the relevant authorities). The Project Company will explore how these issues could be considered and addressed.

Source: EBRD website