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PRIVATE PARTICIPATION IN THE TRANSPORT SECTOR

Lessons from Recent Experience in Europe and Central Asia

V. Cuttaree, M. Humphreys, S. Muzira, and J-P Strand



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ABBREVIATIONS

BOT	Build Operate Transfer
CEE	Central and Eastern Europe
DBFO	Design Build Finance Operate
DSCR	Debt Service Coverage Ratio
EAP	East Asia and the Pacific Region of the World Bank
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia Region of the World Bank
ECMT	European Conference of Ministers of Transport
EIB	European Investment Bank
EMU	Economic and Monetary Union
EU	European Union
EUR	Euro
FYR	Former Yugoslav Republic
GDP	Gross Domestic Product
IBRD	International Bank for Reconstruction and Development, World Bank Group
IFI	International Financial Institution
IMF	International Monetary Fund
IRR	Internal Rate of Return
JASPER	Joint Assistance for Preparing Projects in European Region
LAC	Latin America and the Caribbean Region of the World Bank
LIBOR	London Interbank Offered Rate
NCPP	National Center for Public Productivity
NPV	Net Present Value
PEP-SE	Private Enterprise Partnership for Southeast Europe (PEP-SE)
PPIAF	Public Private Infrastructure Advisory Facility
PPP	Public Private Partnership
PSC	Public Sector Comparator
REBIS	Regional Balkans Infrastructure Study
SEE	South East Europe
SEETO	South East Europe Transport Observatory
SPV	Special Purpose Vehicle
TEN	Trans European Network
UNCITRAL	United Nations Commission on International Trade Law
USD	United States Dollars
VEB	Russian Development Bank
VfM	Value for Money
WACC	Weighted Average Cost of Capital
WB	World Bank
WTP	Willingness-To-Pay

EXECUTIVE SUMMARY

Introduction

This report reviews recent experience in the Europe and Central Asia (ECA) region with contractual public private partnerships (PPPs) in the transport sector. The review and evaluation of successes and failures of past investment projects can provide valuable lessons to governments on the options they have for infrastructure spending and the pre-requisites for those options. Whilst the review covers the whole region, the primary focus is on the Central and Eastern European and South-Eastern European (CEE/SEE) countries as they were the first within the Europe and Central Asia region to follow the global trend of using PPPs¹ in the implementation of infrastructure projects. For the purposes of the study, the CEE countries are defined as the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia, and the SEE/economies countries as Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo, FYR Macedonia², Montenegro, Romania and Serbia.

A number of the countries, particularly in the SEE region, share an ‘institutional heritage’ from the former Yugoslavia, with similar inherited weaknesses in their legal, regulatory and organizational frameworks. The SEE countries all have the same objective to further harmonize their institutional framework with the *Acquis Communautaire*.³ The SEE countries also recognize the need to improve their neglected transport infrastructure and provide improved transport systems that will increase their competitiveness and improve their connections to regional markets. In addition, the SEE countries are traversed by the Corridors of the Pan-European and South East Europe Transport Observatory (SEETO) Core Networks, further underlining the need to raise the standard of their transport infrastructure.

Funding for transport infrastructure projects has been decreasing at the same time as the demand for transport has been rising. Nearly all the ECA countries face limitations both on their current spending which has led to under-spending on maintenance and an accumulated maintenance backlog that represents a significant liability. In addition, many also face constraints in their fiscal space, precluding the traditional reliance on public investment to develop and upgrade the network – both problems are likely to become aggravated against the unfolding economic crises. As a result, the greater involvement of the private sector in meeting the connected problem of increasing traffic and aging transport infrastructure is likely to become more relevant, but it is not a panacea. Large PPPs in the transport sector are being developed in nearly all the countries included in this report.

For current and prospective EU members within the ECA region, the involvement of greater private finance in large-scale projects is also seen as expedient for more political reasons: Meeting the convergence criteria for the euro requires government budget discipline with little room for deficit spending. An appropriately designed PPP can be undertaken with little or no ‘statistical’ impact on public finances⁴. This is because a PPP can be regarded as “off-balance sheet”, if the private party carries construction risk, and either traffic risk or the risk of meeting quality standards set for the service under PPP.

The unfolding economic crisis is likely to impact both public and private investment, and experience has shown that the impact on PPPs is likely to be particularly severe. Investment data from fall 2008 shows a sharp decrease in investment, with a number of projects being delayed. The experience from the financial crises in Asia, Russia and Latin America in 1998-2001 has shown that while PPP investment is unlikely to stop completely, the private sector becomes more risk averse

¹ Defined for the purposes of this report as a contractual agreement between a public sponsor and a private provider that provides for greater involvement of the private sector in the provision and financing of public infrastructure or services with a view to improving efficiency and reducing costs (AECOM Consult, 2007).

² In this report, the name Macedonia refers to the Former Yugoslav Republic of Macedonia.

³ Body of European Union legislation that is binding on all member states

⁴ Eurostat (Statistical Office of the European Commission) Decision 18/2004 February 11, 2004.

and considerably more selective in financing potential projects. Projects with revenue in foreign currency or a smaller amount of required debt financing might be able to reach financial close, although possibly with additional financial support from Government. The lesson for countries in the ECA region is to lower their expectations for project closure, whilst at the same time redoubling their efforts to improve their overall PPP program and strengthen their PPP framework (incl. institutional, legal/regulatory and economic).

Objectives

This report was commissioned to draw lessons from the experiences with PPPs in the transport sector in ECA countries. The report will review experiences to date with private participation in the transport sector with a primary focus on experiences in the ECA countries and Europe.⁵ To carefully prepare and select the most desirable PPP projects during the most severe economic downturn since the Second World War, availability of regional best practices would be helpful. This report will provide guidance for successful PPP implementation and will hopefully encourage public authorities to critically evaluate their project designs.

The lessons from this study apply regardless of the financial crisis. While the dire economic environment will considerably impact the current PPP pipeline, the fundamental success factors for these projects will remain the same. During times of economic turmoil, evaluating past investment projects can provide lessons for stimulating the next period of economic growth. The report discusses the impact of the financial crisis separately in Annex B.⁶

Target Audience

The envisaged target audience are stakeholders in national governments in the region, such as Ministries of Transport, Ministries of Finance, and Roads Directorates. It is expected that the proposed report may be shared with these target clients in the course of regular policy dialogue and ongoing projects – although at least two workshops are planned to disseminate the findings of the report. Another target audience for the study will be transport sector staff of the World Bank in Washington and country offices, as well as colleagues at the European Union, the South East Europe Transport Observatory, and other International Financial Institutions, such as the European Bank for Reconstruction and Development and the European Investment Bank.

Main Findings

Mixed Overall Experience

Both successes and failures in PPP projects can be found in ECA countries. Success in PPP projects generally result from a well-managed interaction between the public and private sectors on all stages of project development and implementation, including most importantly a reasonable sharing of the risks. Most of the projects that have been developed in the ECA region eventually reached financial closure, although the average time taken from conception to financial closure was 4.5 years. In addition, the original ambition of some projects had to be scaled back to ensure financial closure, for example by phasing into smaller sized projects and/or reducing the risk for the private sector.

⁵ Although initiatives in other regions will be reviewed in less detail to identify whether there are any unique lessons that need to be reflected in the final report from those regions (e.g. LAC).

⁶ The case studies are presented in annex A.

As in other regions in the world, some countries attracted more investment from the private sector than others. Although the size of the economy plays an important role, countries (such as Hungary, Croatia and Poland) that started early, learnt from their experience, and improved their institutional framework in terms of relevant laws and institutional capacity, managed to attract more investment over a long period of time. However, in recent years, several countries such as Albania, Bulgaria and the Slovak Republic concluded their first transport PPP transactions.

Reasons for project delays or cancellations can lie anywhere in the project cycle – from projection selection, design and procurement to supervision and monitoring. A robust and independent feasibility study, with a strategic sector assessment, was usually missing from the unsuccessful projects. Alternatively, sometimes the problems lay in the underdeveloped judicial or regulatory framework, which could not guarantee the necessary legal protections for as complex a transaction as a PPP. In other instances, projects were undermined on the revenue side as a gap emerged between users' willingness to pay and commercially viable toll rates. Users' unwillingness to pay, combined with a poor sharing of demand risk, and the perception of non-transparent procurement process, often contributed to public resistance to the proposed PPP.

Importance of Robust Project Selection and Design

Modesty and realism are needed in planning and implementation. Some vast and complex projects undertaken in the region had to be reduced in scale as they were simply too ambitious for the context and the market. Size and complexity increase project risk and make it more difficult to attract private investment. In addition, a weak institutional framework, political uncertainty, and limited public sector resources, even with a positive track record in PPP design and implementation, will always engender greater concern on the part of potential financiers, raising the cost of the project, even if funding can be secured. For example, for large motorway projects, a phased approach to construction could mitigate some of the problems and risks resulting from large project scale.

The importance of a robust feasibility study. The preparation of a robust independent feasibility study in the ECA region has been more the exception than the norm. The absence of a strong feasibility study, containing a good assessment of alternatives, an objective demand forecast, a strong economic and financial appraisal, and an assessment of the contingent liabilities, has led to the development of a number of projects for political reasons, which subsequently failed to attract private participation. "Over optimistic" traffic forecasts, "under estimated" costs, and limited assessment of willingness to pay or the likely response to tolls, have all been prevalent and have contributed to project delay and failure. Overall, PPP projects with high economic and financial returns should be prioritized, and the level of Government financing should be supported by a thorough financial analysis. Without supporting analysis, any necessary public sector contribution will be determined more by negotiations, between parties with very different strengths, than the required rate of return.

There is a need for greater emphasis on value for money (VfM). In theory, the public sector rule for prioritizing PPPs should be VfM: if a project can be procured and implemented more efficiently under a PPP than under traditional public investment, then it should be taken forward. Value for money in this context is generated by several factors, including *inter alia*: (i) optimal (not maximal) risk transfer to the private sector; (ii) careful assessment of the services to be provided achieving whole life asset management and holistic risk management (not normally associated with public procurement); (iii) flexibility provided to the private sector for innovation and efficiency; (iv) competitive and transparent procurement; and (v) the availability of appropriate capacity in the public and private sector. Unfortunately, in practice, the focus in ECA countries has been too often on the maximization of the level of private investment, while VfM calculations have generally been either overlooked, or were clearly secondary.

The need for appropriate risk sharing. Appropriate risk transfer between the public and private sector can increase the VfM of a PPP project and can ultimately reduce the financial contribution from Government and/or the tariff required to be paid by users. However, the transfer of maximum risk to the private sector, as happened with the early PPP projects in the region, has generally not worked,

increasing the total project cost and the risk of project failure. Some risks, such as construction delays, cost overruns or operational setbacks, can usually be transferred to the private sector as was also done in the region. Similarly, the responsibility for inflation and foreign exchange risk is usually assigned to, and accepted by, the public sector.

The allocation of demand risk has been problematic. Demand risk is one of the most controversial risks present in transport projects. It refers to the uncertainty of project revenue caused by unpredictable future demand. In the ECA region, particularly for the earlier projects, the demand risk has sometimes been imposed entirely on the private party, while international practice shows that demand risk is often better shared between the private and public sector. Typically, laying full responsibility for demand risk on the private sector does not represent the best VfM and has often led to project failure. Only if the private sector controls or can heavily influence traffic demand, should demand risk be allocated to it.

The return for lenders and sponsors will determine the attractiveness of the project. Return on investment determines the attractiveness of a project to the private sector. The return is always adjusted for the particular risk profile of the project. A riskier undertaking is expected to yield a higher return to compensate for the uncertain operational, commercial, financial, legal or political components of the project. Potential concessionaires and their lenders also expect a sufficiently high Debt-Service Coverage Ratio (DSCR)⁷ to provide cushion for annual debt repayment.

Procurement and Contract Monitoring

The need for open and competitive procurement. Procurement in ECA has been characterized by limited, and sometimes opaque, competition, resulting in lower VfM, public resistance and renegotiations, and even failure. Examples of projects that were procured without competitive bidding, and which subsequently faced issues during negotiations or after financial closure include motorways in Bulgaria, Serbia and Croatia. The absence of competitive bidding has also resulted in longer negotiations than normal, as was the case in Poland, again engendering uncertainty in the minds of potential investors.

Unsolicited proposals are rarely as good as they appear. Increasing interest in large infrastructure projects is usually accompanied by a rash of unsolicited proposals, of varying quality, from potential financiers. These offers can be accompanied with disputable claims as to their benefits, including greater efficiency, or the confidentiality of proprietary technology. The reality is usually very different, with the information asymmetry between the potential bidder, a large well-informed, well resourced contractor group, and a weak public sector, with the latter usually conceding far more than it should. The result is increased cost, and frequently poor value for the public money expended. In those rare cases, where there is genuine innovation in the proposal and when the government has little financial resources for project development, unsolicited proposals may be useful. But even here the benefits of open competition can be realized by providing an advantage during the normal procurement process to the company that made the original unsolicited proposal.

The Institutional Framework for PPPs

The need for an appropriate legislative framework. A legal framework should create a favorable environment to attract private sector financing and put in place adequate controls to ensure that a PPP project will deliver its expected value to the public. In more recent years, several countries in the ECA region have passed special legislation for PPPs, concessions and public procurement, to improve the required contractual framework. In addition, a well-drafted PPP contract can reduce transaction costs and help the government avoid excessive risk-taking.

⁷ DSCR is the ratio of the cash flow available for debt servicing over debt servicing in any given period (usually 6 months or 1 year).

The need for a centralized unit to lead the preparation. PPPs are complex projects that require extensive coordination between various ministries and public agencies. One solution adopted by several countries within and outside the region has been to create a central PPP unit. While this can be based in the line ministry, or the Ministry of Finance, what is important is the removal of ambiguity in responsibility for any part of preparation. Countries with successful programs tend to have such a unit, although it is not a necessary or sufficient condition for success. Ideally, a PPP Unit has a clear mandate, and the resources and authority to fulfill its tasks. Some ECA countries have already created institutions such as a PPP Unit (sometimes at the regional level such as in St Petersburg, Russia) to help better develop and manage PPP projects. It is also important to engage experienced PPP transaction advisers to support the Government.

Advantage of strong credit rating and mature local capital markets. A country's credit rating directly impacts the total cost of a PPP project for the Government and users. Given that the country's credit rating is a measure of risk, it does influence directly the project's risk perception and its cost of capital. A poor credit rating may require additional guarantees or credit enhancement measures for the project. Having mature capital markets can further reduce project risk by allowing local borrowing with longer maturities. The risks involved with foreign borrowing could materialize in a time of strong currency fluctuation or sharp depreciation. Mature capital markets will also increase project attractiveness to investors by providing an improved exit option. In practice, local capital markets are often unable to provide debt with the long maturities required for PPP projects.

The need for a stable policy framework. The stability of the country's policy framework, both for the sector and for PPPs more generally, is also critical to attracting investment in PPPs. A stable and robust policy framework can contribute to the attraction of lower-cost finance. A strong sector policy and regulation are essential for the sustainability of a PPP project.

The contribution of the International Financial Institutions (IFIs). IFIs, such as the World Bank, can offer risk mitigation instruments, such as guarantees, to help accelerate infrastructure investments in transition countries, such as in the ECA region. Guarantees from IFIs like the World Bank insure the private sector against government performance risk and thus mobilize new sources of financing while significantly lowering the financing costs and extending maturities. In addition, IFIs can offer favorable loans with longer repayment terms. IFIs are also well-positioned to provide much-needed technical assistance and capacity building, and to disseminate best practices to master the complexities of PPPs. For example, the World Bank has produced port and highway toolkits to educate government officials on all aspects of PPPs.

Next Steps for ECA Countries

Countries with extensive PPP experience should pay more attention to value for money. Countries such as Hungary, Poland, Croatia, Bulgaria and the Czech Republic pioneered the PPP approach in ECA and have already accumulated significant experience from interactions with the private sector. While they share a solid institutional framework for PPPs and a relatively developed private sector, the most distinguishing factor from other ECA countries is political will. During the early years of post-communist transition, these countries had the courage to engage the private sector in infrastructure projects and that mentality has remained until today. To gain better VfM, these countries should make the bidding process more competitive and pay closer attention to risk allocation. PPPs should not be implemented at any cost. Rather, they add value only if they are structured to maximize efficiencies from the private sector and assign risks based on who manages them best.

Improving public sector capacity for project preparation should be a priority for most countries, especially those with some experience with PPPs. While countries such as Albania, Estonia, Latvia, the Slovak Republic and Romania all have some experience from PPPs, they have great untapped potential for private sector involvement. To expand their PPP programs, these countries should focus on strengthening the legal and institutional framework for PPPs. This could mean introducing special PPP legislation or creating a separate PPP unit within the Government,

although the creation of a PPP Unit still requires building capacity at the sectoral Ministry level. On the project level, the focus should be on the design and preparation stage. Having a comprehensive feasibility study with a competitive procurement process would ensure that only projects with potential VfM for the government enter the PPP project pipeline. Capacity is also built through the experience of preparing and procuring a PPP project.

Countries with limited PPP experience should start by formulating a strategy for the required reforms and policies for PPPs, and consider using risk mitigation instruments. In the ECA region, the countries of former Yugoslavia: Bosnia-Herzegovina, Kosovo, FYR Macedonia, Montenegro, Serbia and Slovenia should first develop a high-level assessment of the potential for PPPs in their countries. Lithuania should follow a similar plan as another country with no PPP experience. With a strategy in place, the next steps would include reforming the Government institutions and practices to accommodate for private participation in infrastructure projects. Technical assistance from PPP experts or IFIs could be helpful in launching a PPP strategy. Finally, these countries might still be seen as risky environment for private investment, and the use of risk mitigation instruments can help reduce the risk perception and facilitate private sector investment.

1. INTRODUCTION AND BACKGROUND

This report reviews recent experience in the ECA region, with a focus on Central and Eastern European (CEE) and South Eastern European (SEE) countries for contractual public private partnerships (PPPs) in the transport sector. During the past two decades, PPPs have become an acceptable structure for public service provision and financing in the world. In the best cases, PPPs clearly surpass traditional public procurement for service quality and VfM – reflecting a better distribution of risk and providing incentives for innovation in financing, implementation and management. The PPP model was introduced in the countries of the Europe and Central Asia (ECA) region⁸ soon after economic transition, and after well-publicized difficulties, some notable successes have been achieved. The review and evaluation of past investment projects, both successes and failures, can provide valuable lessons for governments on the options that they have for spending for infrastructure, but also equally and sometimes more importantly, the necessary pre-requisites.

The CEE/SEE countries were the early pioneers in the use of PPPs in the ECA region. The CEE/SEE region has been selected as the focus for the review, as within the Europe and Central Asia region these countries were the first to follow the global trend of PPPs⁹ in the funding of infrastructure projects, and amongst the transitional economies are those with the greatest valuable experience. The CEE region is defined here as encompassing the countries of the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, and Slovenia. The SEE countries include: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo, FYR Macedonia, Montenegro, Romania and Serbia.

The structure of the report. The following sections outline the reasons behind the recent resurgence of interest in PPPs in the ECA countries, and place that resurgence in a global and sectoral context (Chapter 2). Chapter 3 presents the key lessons learned from the review of PPP projects in the region (and detailed case studies for some of the more interesting projects are presented in Annex A to the report), whilst Chapter 4 offers conclusions and recommendations.

1.1 Considerable infrastructure needs

Significant infrastructure needs exist in ECA, particularly in some SEE countries and demand is growing. Many of the CEE and SEE countries inherited transport infrastructure that was unsuited to the needs of a market economy – with limitations in design, condition and quality. All the countries recognize the need to improve their links with the core markets of the European Union, and development has been taking place in some countries. In addition, both the CEE and SEE countries are traversed by the Corridors of the Trans-European, Pan-European and SEETO Core Networks, providing opportunities to earn significant revenues from transit consignments, and forming an additional incentive to raise the standard of transport infrastructure. Actual traffic has been growing on the ‘core road network’ in SEE countries at 8 percent per annum in recent years, and is projected to grow by 60 percent by 2013¹⁰.

⁸ As defined by the World Bank. CEE/SEE countries are considered as part of Europe and Central Asia (ECA), which includes the following countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kosovo (in accordance with UN Security Council Resolution 1244, Kosovo is under United Nations interim administration), Kyrgyz Republic, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan.

⁹ Defined for the purposes of this report as a contractual agreement between a public sponsor and private provider that provides for greater involvement of the private sector in the provision and financing of public infrastructure or services with a view to improving efficiency and reducing costs (AECOM Consult, 2007).

¹⁰ SEETO (2008) South-East Europe Core Regional Transport Network Development Plan Volume 1.

As a result, the expenditure needs in the ECA region are considerable. It has been estimated that fast growing lower-middle income countries need to spend approximately 5 to 7 percent of GDP on infrastructure investment in all sectors combined, which includes approximately 2 to 3 percent of GDP for development and maintenance of existing assets in the transport sector. One recent study estimated long term investment needs of €4 billion on the 'core' road network in the SEE countries, and €12 billion on the 'core' railway network¹¹. Yet few countries in CEE/SEE are currently investing at these levels. For example, in the road sector, actual expenditures are below 2 percent of GDP in all CEE/SEE countries.

There are also considerable recurrent expenditure needs. In addition to the investment required to construct new roads and upgrade existing ones, there are also considerable expenditure needs to address the maintenance backlog (for roads, railways, ports and airports), which has accumulated over time, and prevent further premature deterioration in newly constructed assets. The challenge that all the ECA countries face is to deliver transport infrastructure of a standard necessary to facilitate economic development and poverty alleviation, in its broadest sense, within the fiscal constraints that they face.

1.2 Constraints on public finance

Funding for transport infrastructure projects has been constrained and is now likely to fall further. Nearly all the SEE countries have faced limitations both on their current spending which has led to under-spending on maintenance and a maintenance backlog that forms a significant liability. In addition, they face constraints in their fiscal space, precluding the traditional reliance on public investment to upgrade the network – both problems are set to become accentuated with the unfolding economic crises. With constrained public resources, little room exists for the public sector on its own to cope with these pressing capital intensive demands. If these public resources in the ECA countries were spent on infrastructure needs alone, they could compromise spending needs in social sectors like health and education.

In addition, meeting the convergence criteria for the euro requires government budget discipline inhibiting public financing of large infrastructure projects. The convergence criteria, also known as the Maastricht criteria, have been set for European Union member states to enter the third stage of the Economic and Monetary Union (EMU) and adopt the euro¹². These criteria restrict the ability of many CEE and SEE governments to raise debt to finance transport infrastructure projects, or other public services and facilities. Obviously, these criteria are impacting current EU countries more than countries which are not members. For example, Poland would be keen to join the Euro and may do so within the next few years, whereas a country like Serbia is prioritizing EU accession negotiations before it will be bound by the convergence criteria.

1.3 Renewed interest in PPPs

There has been a renewed interest in PPPs until end-2008 not only in the region but worldwide. PPPs offer a wide variety of project financing and delivery approaches to access capital markets, implement new technology and expedite project delivery, operations, and maintenance in a more cost-effective manner¹³. There are major PPPs under development in many countries in the SEE and CEE region. Over the last decade, the more developed nations have considerably relied on PPPs

¹¹ REBIS Transport (2003) *Regional Balkans Infrastructure Study*, Final Report, European Union.

¹² The criteria set out in the Treaty of Maastricht, that need to be met by European countries if they wish to become full members of the Economic and Monetary Union. They include: 1) inflation of no more than 1.5 percentage points above the average rate of the three member states with the lowest inflation 2) a national budget deficit close to or below 3 percent of gross national product and 3) public debt not exceeding 60 percent of gross national product.

¹³ AECOM Consult (2007)

to fund their infrastructure projects, and this cannot be attributed to their macroeconomic status or fiscal positions which are relatively healthy¹⁴. The general drivers of interest in PPPs can be summarized as follows¹⁵:

- (i) Using private finance to provide investment that the public sector otherwise cannot afford;
- (ii) Maximizing VfM through appropriate risk allocation between the public and private sectors;
- (iii) Attaining greater efficiency, lower costs, higher quality and faster delivery of public infrastructure projects;¹⁶
- (iv) Building capacity of the private sector; and
- (v) Promoting innovation not only in technical and operational matters but also in financial and commercial arrangements.

But PPPs are not a panacea for limited fiscal space. The judgment on whether a project should be publically funded or using a mixture of public and private funds should reflect a robust assessment of the total life-cycle costs of a typical PPP project against the life cycle costs of a traditional publically funded project. This will include not only the upfront costs, but also the stream of annual payments made to the concessionaire, or the contingent liabilities that the state has to accept in order for the project to reach closure. In sum, the political requirements of fiscal discipline should not motivate PPPs, but unfortunately practice in the CEE/SEE region has often proved otherwise.

¹⁴ For example, the private share of total annual investment in transport (excluding vehicles for personal use) was about 20 percent in the United States in the 1990s and as much as 40 percent in Australia in the early 2000s (World Bank, 2007).

¹⁵ This list is specific for road infrastructure but can just as easily be extrapolated for other transport infrastructure.

¹⁶ Some estimates list state and local governments achieving cost savings of between 10 and 40 percent through the use of PPP schemes (NCPP, 2002) as quoted in Williams (2003). Highest quality is attained or even guaranteed because in most delivery approaches, the private developer is responsible for maintenance for 30 to 40 years (Levy, 1996) as quoted in Williams (2003).

2. REGIONAL PERSPECTIVE ON PRIVATE FINANCE

2.1 Introduction

During the past two decades, PPPs have become an acceptable structure for public service provision and financing in the world. In the best cases, PPPs surpass traditional public procurement for service quality and VfM – reflecting a better distribution of risk and providing incentives for innovation in financing, implementation and management. The PPP model was introduced in the Europe and Central Asia (ECA) region¹⁷ soon after economic transition. Within the ECA region, the CEE and SEE countries were PPP pioneers for their early attempts at attracting private financing for public services provision.

In 1993-1996, the CEE/SEE region accounted for 100 percent of private infrastructure investment in the Europe and Central Asia region (ECA). In subsequent years, the CEE/SEE monopoly over private finance weakened as other countries in the region started experimenting with private finance and PPPs. With other ECA countries catching up, CEE/SEE countries still implemented the majority of PPP projects within the region even though the amounts invested fluctuated from 1993-2007. This chapter of the report provides a brief overview of use of private finance in transport in the SEE/CEE countries, within a sectoral, regional and global perspective, before providing a summary of the early experiences.

The following analysis will heavily draw on a World Bank database with details on thousands of projects in 141 low- and middle-income countries as classified by the World Bank in 2007.¹⁸ The database records contractual arrangements with and without investments in which private parties assume operating risks. It should be noted that Estonia and Czech Republic, which have been included in this study, do not appear in the database as they have “graduated” from middle-income status as defined by the Bank. Data are available on these two countries until 2006 and have been included in some of the country-specific graphs. For all other ECA countries, data through 2007 have been considered in the analysis. The database is updated annually, but information for 2008 is yet to be released. Since the database draws its information exclusively from public available sources, it carries the risk of inaccuracy attributable to those sources. While not perfect, the database allows analysts to go beyond anecdotal evidence.

2.2 Global context of private finance

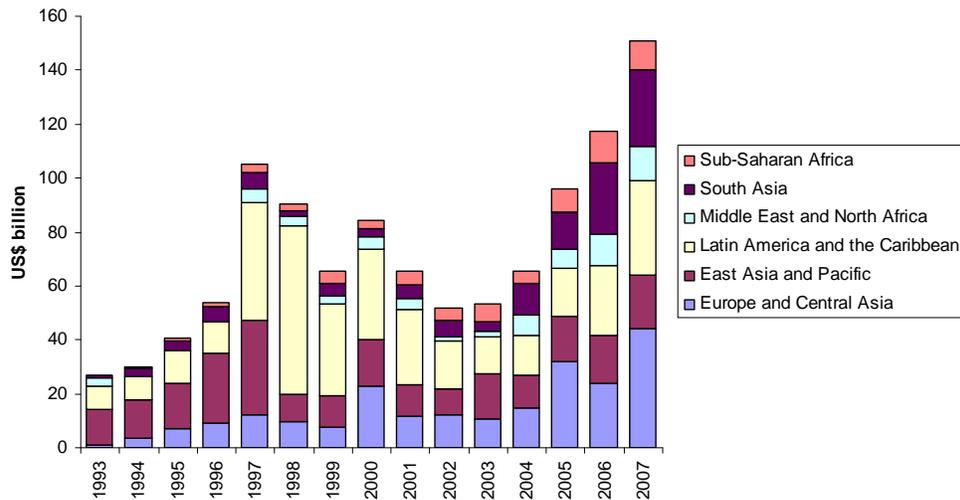
Globally, the use of private finance in infrastructure has been increasing over the last two decades with economic modernization and increasing foreign investment. Several emerging countries have invited the private sector to participate in their infrastructure investment programs while opening borders to international capital flows. By comparing the levels of investment across various infrastructure sectors and regions, it is possible to detect patterns unique to each region. These deviations from global trends can then warrant a closer examination of the particular regional context, providing a macro-level background for detailed country-specific analysis.

The trend for PPP investment in all sectors has been broadly increasing. The trend for investment in PPPs in all sectors broadly follows the global business cycle. Figure 2-1 illustrates the global trend of increasing investment in all sectors until the economic crises of the late 1990s. After a brief peak in year 2000, total investment levels somewhat declined until 2005, when investment activity markedly increased not only in ECA but also in LAC and South Asia.

¹⁷ As defined by the World Bank. CEE/SEE countries are considered as part of ECA.

¹⁸ The Private Participation in Infrastructure (PPI) Project Database is the leading source of PPI trends in the developing world, covering projects in the energy, telecommunications, transport, and water and sewerage sectors. Available at <http://ppi.worldbank.org/>

Figure 2-1 : PPP Investment in All Sectors by Region (1993-2007)

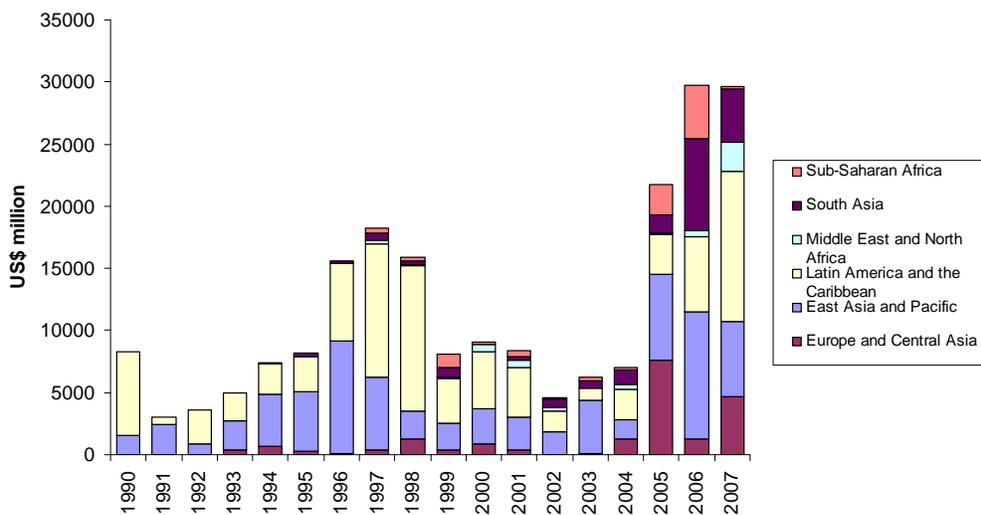


Source: PPI Database (2008)

Note: Estonia and Czech Republic not included in 2007 data

In comparison, with East Asia & Pacific (EAP) and Latin America & Caribbean (LAC) regions, the level of private transport investment in ECA was low. Figure 2-2 presents the levels of PPP investment in the transport sector by region over 1993-2007. The growth rates and absolute levels of PPP investment in transport in the early and mid-1990s in ECA lagged behind EAP and LAC. During the economic crises in emerging markets in the late 1990s, PPP transport investment in ECA remained volatile while slowing down during 2000-2003. From 2004-2007, transport investment clearly increased in ECA, while maintaining an unsteady pattern. Other regions outperformed ECA more often in attracting private investment in the transport sector than in all sectors combined. It can also be observed that investment in transport did not establish a solid upward trend until 2004-2007, whereas for the combined sector investment, the increasing pattern emerged over the whole 1993-2007 period.

Figure 2-2 : PPP Investment in Transport by Region (1993-2007)



Source: PPI Database (2008)

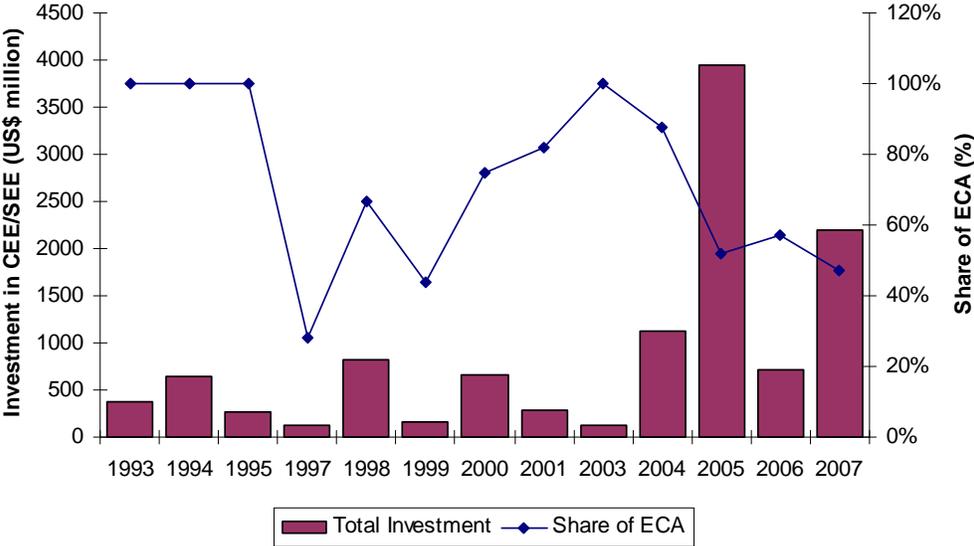
Note: Estonia and Czech Republic not included in 2007 data

The regional differences partly result from the different sizes of the respective regional and national economies. PPP transport investments in EAP and LAC were driven by high economic growth rates in the former and a strong policy of concessions and privatizations in the latter. Moreover, only a few large economies in EAP and LAC received private sector investment in transport infrastructure. In the 1990s, many ECA countries were struggling with recession or conflict. No economy in ECA could match the size or growth of China, Mexico, or Colombia.

2.3 Development of private finance in the CEE/SEE Region

Within the ECA region, the largest share of PPP transport investment has been in the CEE/SEE countries. From 1993-2006, investment in transport involving private finance in the CEE/SEE countries typically represented over 60 percent of the total in the ECA region. The CEE/SEE region also pioneered PPP investment in ECA, representing 100 percent of all investment during 1993-1996. Between 2000 and 2004, the share slightly dropped to 80-100 percent of the total. Total transport PPP investment in 2005 is remarkable, accounting for US\$ 4 billion. However, this surge can be explained by one project which accounted for two-thirds of the total PPP investment in 2005: the Budapest International Airport in Hungary. The decrease after 1998 and increase after 2004 followed the global trends of economic turmoil in the late 1990s and world recession in the early 2000s. Vigorous global economic growth resumed in 2004¹⁹, coinciding with a noticeable increase in investment levels.

Figure 2-3 : PPP Transport Investment in CEE/SEE & Share of ECA (1993-2007)



Source: PPI Database
 Note: Estonia and Czech Republic not included in 2007 data

¹⁹ World GDP rose from 3.6% in 2003 to 4.9% in 2004 according to the IMF World Economic Outlook Database (available at www.imf.org).

Discouraging early efforts (1993-1999)

The first attempts to implement PPP projects were high profile and unsuccessful, which reduced the attractiveness of PPPs for many countries and impeded more rapid development. The first international tenders for toll motorways as PPP projects were the following:

- Istrian Y Motorway Project, in Croatia in 1991;
- D5 Motorway between Prague and the border with Germany, in the Czech Republic in 1992; and
- M1/M15 Toll Motorway Project, in Hungary in 1992.

Although the procurement process in Croatia was interrupted by war, the financial close of the first phase was achieved in 1997. The Czech Republic D5 project was abandoned in 1993 as it became clear during procurement that the expected traffic volumes were too low for the desired toll rates. Similarly, after construction of M1/M15 was finished, the project soon ran into problems caused by lower than expected traffic and resistance to tolling, and was subsequently re-nationalized.

Several concessionaires bearing demand risks were severely impacted in the initial years by optimistic traffic forecasts. A review of 183 road projects showed that half of the forecasts were off by at least 20% and a quarter by 40% or more²⁰. The situation is even worse for railways, with three-quarters of forecasts over-predicted traffic by more than two-thirds. When this happened in the region, in the absence of minimum traffic or revenue guarantees, the lenders sometimes requested an independent traffic review, delaying and potentially preventing financial close. Alternatively the concessionaire had to bear the cost of lower traffic, often resulting in financial distress. This mainly happened in the road sector and was the main cause for projects becoming financially distressed. Examples of projects that failed or did not materialize due to lower than expected or absence of traffic projections include the Czech Republic Motorway PPP in 1993, the M1/M15 toll road in Hungary, the Pitesti-Bucharest-Constanza motorway in Romania and the A4 Zagreb-Gorican Motorway in Croatia.

The first PPP projects also faced strong public resistance to toll rates, as the public in most countries considered roads as a public good. The former centrally-planned economies of CEE and SEE were characterized by low prices paid for public services, often achieved through heavy subsidies. The implementation of a PPP project with limited contribution from Government introduced a different philosophy, with users paying a higher share of the cost of service provision. In practice, it meant a substantial increase in tariff for passenger transport or the introduction of tolls in a region where road use had been free. In addition, the introduction of tolls often diverted traffic to a parallel road, reducing revenue from tolling, increasing the perception of congestion and raising safety concerns. Increases in toll rates often resulted in public and legal action or resistance even when inflation or the traffic justified it. One example of this is the M1/M15 highway in Hungary.

The use of uncompetitive procurement contributed to extensive negotiations and thus to a higher cost for the Government. The private sector is usually more experienced in negotiations, while the Government often lacks the basic cost information in the absence of feasibility studies. Many countries in CEE countries started their road concession program with limited competition and sometimes had to cancel the negotiations or renegotiate, often after a change in government. While the average time from conception to contract signing is 4.5 years in the region, it took close to 7 years between the beginning of negotiations and signature of the concession contract for the A1 Toll Motorway Project in Poland. In the SEE region, Croatia (Istrian Epsilon Toll Motorway Project) and Serbia (Belgrade Airport Cargo & Logistic Center Project) also faced long delays and allegations of uncompetitive procurement.

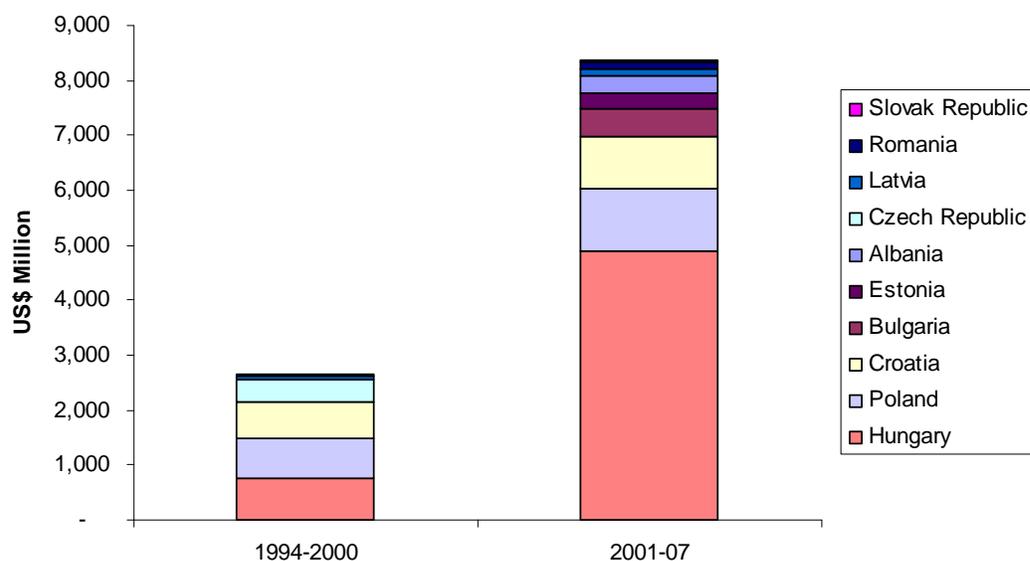
²⁰ B. Flyvbjerg, M.K.Skamris and S.L. Buhl (2005)

More promising second generation of projects (2004-07)

PPP investment in transport remained low from 2000 to 2003, but increased from 2004 onwards, driven by only a few countries and transactions. The contrast between the 1990s and the mid 2000s is significant. The share of transport started growing again in 2004 following the global trend of increasing transport investment. Between 2004 and 2005, investment in transport PPPs more than doubled and reached the highest level since 1994. In 2005, investment in CEE/SEE was even higher than in LAC and EAP. The increase in 2005 was mainly due to one transaction, the Budapest International Airport, which represented two-thirds of the total PPP investment in that year. This partly explains the significant decrease in 2006, where total investment in nominal terms appears 80 percent lower than in 2005.

Total PPP transport investment in 2001-2007 in the CEE/SEE region was over twice the amount received in 1994-2000²¹ (see Figure 2-4 below). This increase is high on a worldwide scale, with global PPP transport investment increasing by about 32.4% during the same time. About 87% of total investment came from only four countries, Hungary, Poland, Croatia and Bulgaria. As discussed above, the year 2005 was exceptionally good, driven by two transactions representing about 50% of total PPP investment received in 2000-06: the Budapest International Airport in Hungary and the A1 Gdansk-Torun Motorway in Poland. Despite these outlier transactions, the group of countries with PPP investment was more diversified in the latter period as countries with no prior experience launched their first PPP projects.

Figure 2-4 : PPP Investment in Transport in 1994-2000 and 2001-2007



Source: World Bank PPI Database

Note: Estonia and Czech Republic not included in 2007 data

Although the level of investment did not increase between 2000 and 2003, the economic and political situation in the region dramatically improved. The investment levels of transport PPPs decreased in all regions, driven by the financial crises in Argentina and Russia. However, this period was important for the SEE region, with the end of the Kosovo crisis in 1999 and improvement of the macroeconomic situation. The economies in SEE grew at a rate close to 5 percent between 2000 and 2002 with moderate inflation²². In addition, many countries in the CEE and SEE regions were

²¹ Note that the amounts are recorded in nominal terms. The increase in real, inflation-adjusted, terms would be smaller.

²² World Bank (2004)

preparing for EU accession, which was based on EU *acquis communautaires*, including transport policy²³. This new context changed the manner in which PPP projects were prepared and viewed. The massive infrastructure needs after decades of neglect and conflict, coupled with limited public fiscal space, were an important catalyst for arousing interest in PPP. The real drivers for private sector interest, however, stemmed from the improvement of macroeconomic conditions and a more stable political climate.

In addition to the improved macroeconomic and political climate, these countries are benefiting more from technical advice and financial support from the IFIs, such as the EBRD, the EIB and the World Bank. New financing programs from donor and the IFIs include the multi-donor Public-Private Infrastructure Advisory Facility (PPIAF) for technical assistance the Private Enterprise Partnership for Southeast Europe (PEP-SE) of the IFC, and JASPER (Joint Assistance for Preparing Projects in European Region) of the EU Commission. IFIs contributed to the financing of several PPP projects in the region, including the A1 Gdansk-Torun Motorway in Poland (2005), the Tirana Mother Teresa Airport in Albania (2005), the Hungary M6 Motorway (2005) and the A2 Berlin-Poznan-Warsaw Project in Poland (2000). These institutions also strongly encourage strengthening the PPP framework, preparing complete feasibility studies and ensuring transparent procurement.

Review of private investment in sub-regions, countries and sectors

Within the CEE/SEE region, PPP investment has occurred almost exclusively in CEE, with only a few SEE countries managing to attract private participation in transport. CEE countries seem to have benefited from past experience whereas SEE countries are implementing their first PPP projects in the transport sector. In the CEE region, almost all countries that implemented a PPP project in transport had previous experience in PPP during the 1990s. PPP investment increased in SEE, but remained until 2006 limited to a few EU member or accession countries. However, the countries of the former Yugoslavia and smaller SEE countries are starting to implement their first PPP projects. This is the case for Albania, with the Mother Teresa Airport (2005), as well as Serbia, with the failed attempt to structure the Horgos-Pozega Motorway as a PPP concession (2007).

Transition countries have a harder time attracting private financing for transport infrastructure projects. The limited involvement of the private sector stems from the perceived risks of investing in a particular country or region. High risks could compromise the overarching goal of making a return on investment. Therefore, private investors will hesitate to be involved in an environment with perceived economic, legal or political instability, or low traffic levels and demand²⁴. PPP transport investment in CEE between 1993 and 2006 represented about 50% of the ECA region, and 78% of CEE/SEE. The weak performance of the SEE countries is partly explained by the Yugoslav Wars of the 1990s. After the war, the former adversaries inherited significant public debt and war claims while trying to revive their moribund industries and war-ravaged economies. The conflict also inflicted neighboring countries which had relied on the former Socialist Federal Republic of Yugoslavia as a key market in itself and a transit country to Western European markets. An additional explanation is the relatively smaller size of SEE economies, given that PPP investment usually favors countries with larger economies and higher growth. As a result, PPP investment took place only more recently in a few SEE countries such as Bulgaria and Albania.

Although PPP investment was highly concentrated in a few pioneering countries, some countries attracted less investment than expected. Investment in CEE is highly concentrated in two countries, with Hungary and Poland representing 89% of total investment during 1993-07. Croatia leads SEE in total investment, receiving 62% of investment in SEE, followed by Bulgaria (21%) and Albania (12%). Although this trend is also seen in other regions, it is not always the largest economies or countries with the highest growth that attracted most investment, but often the ones that started

²³ In 2004 the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia joined the EU. In 2007, it was the turn of Bulgaria and Romania to become EU members

²⁴ This is ultimately complicated by the fact that investment in transport infrastructure especially roads is a "sunk" and "irrecoverable" investment i.e. after the money has been invested and the infrastructure built; the investor cannot deal with unfavorable circumstances by converting the road to other purposes or relocating it to a more favorable location.

experimenting with PPP early. For example, Romania, despite having a GDP per capita close to Poland in the 1990s, had only one PPP project in transport, resulting in a marginal level of private investment. Hungary, on the other hand, has been not only the main recipient of PPP investment in transport (53% of total investment between 1993 and 2007) but also the pioneer in the early 1990s, with about 79% of total investment in 1993-95. Croatia and Poland were also pioneering countries, although they started a few years later and with smaller accumulated investment.

In recent years, as more countries have successfully implemented their first PPP projects, total investment has increased. The most active countries (Hungary, Poland and Czech Republic) in terms of number of projects and amount of transport investment received usually reached financial closure for only one project per year. This means that the total amount of private financing has been highly dependent on a few large transactions in a relatively small number of (3-4) countries. This is illustrated by the very low level of investment in 2001-03, in which the top three countries had only one transaction reaching financial closure. However, the situation improved in 2005 and 2006, with respectively five and four PPP projects reaching financial closure. These projects were smaller than the large transactions in roads and airport for Hungary but nevertheless show a positive trend of diversification. These years also witnessed the first transaction for Albania, Bulgaria and the Slovak Republic, widening the group of countries receiving private investment for transport projects.

Figure 2-5 : Number of Projects Reaching Financial Closure

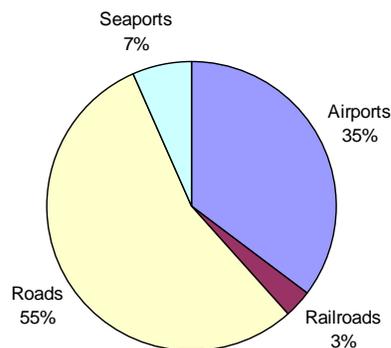
Country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Grand Total
Albania													1			1
Bosnia and Herzegovina																0
Bulgaria												1	1	2		3
Croatia						2						1				3
Czech Republic			1		1	3		1								6
Estonia							1	1	1							3
Hungary	1	1			1	1						1	1		1	7
Kosovo																0
Latvia						1	1							1		3
Lithuania																0
Macedonia FYROM																0
Montenegro																0
Poland	1			1		1	1	1				1	2			8
Romania						1									1	2
Serbia																0
Slovak Republic														1		1
Slovenia																0
Grand Total	2	1	1	1	2	9	3	3	1	0	1	2	5	4	2	37

Source: World Bank PPI Database

Note: Estonia and Czech Republic not included in 2007 data

Recent PPP investment took place mainly in the road and airport sectors, with more airport projects reaching financial closure in recent years. These sectors represented about 90% of total PPP investment in the transport sector, with the difference being almost equally shared between railways and seaports (See Figure 2-6 below). In fact, investment in the road sector was mainly made in three countries (Croatia, Hungary and Poland) and the first projects in 1993 and 1994 were all road projects. On the other hand, the greatest share of PPP investment in airports occurred in 2005 and 2006. Most countries in CEE/SEE have had some investment in airports. The investment in the airport sector was driven by three transactions in Hungary (including the Budapest International Airport project, which represented 95% of PPP investment, including payment to Government, in the airport sector in 2005), Albania and Bulgaria in 2005 and 2006. These projects were all concessions, representing a total investment of US\$ 3.47 billion.

Figure 2-6 : PPP Investment by Sub-sector in the CEE/SEE Countries (1993-2007)



Source: World Bank PPI Database

Although the other sub-sectors have a lower share of total investment between 1993 and 2006, the trend in PPP investment in ports is very encouraging. PPPs in the port sector only started in 1998 and about 50 percent of the investment took place in 2005 and 2006. Poland was the recipient of more than half of this investment and the more recent investment was driven by three transactions: the US\$ 121 million concession of the Baltic Container Terminal in Poland (2003), the US\$ 200 million Build-Own-Operate deep-sea Gdansk container terminal project in Poland (2005) and the US\$ 135 million Ventspils Nafta Terminal divestiture in 2006.

Despite the need for massive investment, railways did not attract much investment, mainly due to the complexity of the required reforms. PPP investment in railways has represented only 3% of total investment in the transport sector. In addition, about 95 percent of PPP investment in railways came from the Estonian Railway Project in 2001, which subsequently failed. Although regional needs are known to be significant, private investment in railways is usually linked to reforms of the sector, which are usually difficult and time-consuming to implement. With the end of the conflict in SEE and new incentives to better integrate into the European network, more investment is likely to take place. The limited interest of the private sector in railways can also be a matter of economic viability. In many SEE countries, for example, the railway sector suffered massive losses in traffic (and hence revenue) following the periods of war and conflict; and levels have not recovered to anywhere close to pre-war levels.

Despite other regions attracting more PPP investment, only a few projects in CEE/SEE have been cancelled or distressed after financial close. Information is not readily available on cancellation before reaching financial closure, or on delays and interruption of procurement. Three projects were cancelled (two in Hungary and one in Estonia) representing a total investment of US\$ 773.6 million, about 8 percent of total investments in CEE/SEE region. The railway divestiture in Estonia reached financial close in 2001 but was cancelled in 2006. In Hungary, the Ferihegy Airport Terminal 2 expansion and the M1/M15 Toll Road were cancelled in 1997 and 1999, respectively. By comparison, in the Latin America region, 8.4 percent of projects and 12.7 percent of investment in transport PPP projects were cancelled or distressed.

3. REGIONAL EXPERIENCE AT PROJECT LEVEL

3.1 Introduction

In countries unaccustomed to the complexities of PPP, success resulted from an interactive learning process between the public and private sectors. During concession planning and negotiations, both private and public parties have to be realistic about their own requirements and understanding of the demands of their counterpart. It is in the interest of both to create the right conditions for their PPP to succeed. On the government side, suitable conditions were created through appropriate policies, laws, regulations and institutions. On a project level, careful preparation and management at all stages of PPP development was also important. On the private side, success resulted from a realistic assessment of the expected project costs, revenues and financing.

Reasons for unsuccessful projects can be traced down to the overall PPP framework, project selection, design, procurement and even supervision (monitoring after financial close). A few successful²⁵ projects did not require public support in the form of either capital and/or operation subsidies or traffic/revenue guarantee. As a result, it would be incorrect to measure the value brought by a PPP project only by the level of investment or the number of km of assets built (in the case of a highway). In fact, international experience has shown that the value of PPP relies more in savings for Government and users than having the private sector provide infrastructure and services with no contribution from Government (off-balance sheet accounting).

Most of the procured projects in the region reached financial closure, although some of them after several years. A successful project can be defined as one that is thoroughly prepared and reaches financial closure within a reasonable timeframe. The lack of traffic forecasts or analysis of users' willingness to pay often delayed procurement as the level of public support had to be negotiated. Inadequate preparation sometimes led to financial distress when revenue proved lower than expected. Given that most of the projects implemented did not assess the value of the private option vs. traditional public procurement, determining the savings for Government and taxpayers was practically impossible.

The failed attempts mainly happened in the early years when users were not willing to pay for commercially required toll rates. This was the case for the first attempt of the D5 Toll Motorway concession in Croatia. In a few cases, the concessionaire requested government support during negotiations. Projects that took significant time to reach financial closure were either negotiated or not properly defined, which required longer than expected negotiations. One example is the procurement of the Poland A4 Toll Motorway project, which took almost three years.

Most unsuccessful projects lacked a solid feasibility study. Traffic forecasting was carried out more often than assessment of financial profitability and required Government support. One example of this is the Zagreb-Macelj Toll Motorway. Financial viability was typically discussed with the selected firm or consortium. In several cases, the Government and the private sector could not agree on the level of public support or project attractiveness, and so many projects failed to reach financial close. However, while feasibility studies are important, the M1/M15 Toll Motorway in Hungary illustrates that a traffic forecast can be misleading. It always carries the risk of overoptimistic figures, even when prepared by professionals.

Some projects reaching financial closure were phased into smaller sized projects to reduce the risk for the private sector. Traffic risk was a serious consideration for the private sector in several countries that tried to implement PPP projects in the road sector - without a history of toll collection. It is often difficult in practice, without extensive modeling exercises, to reliably assess the change in driving behavior caused by a new highway. Phasing options include dividing a road into sections or limiting the scope of the investment with the option to increase it later, such as having an option to expand a four-lane road to six lanes. Phasing is particularly important if the country has

²⁵ Defined as a project reaching financial close and one that did not get into financial trouble or renegotiation in the first few years of operations.

limited experience in PPP projects or if the project is the first in its category. An example of this would be a toll road project in a country with a tradition of free access to highways.

Phasing allowed assessing the road users' reactions to tolls and verifying traffic assumptions before committing to further investments. One example of successful phasing in a project was the A2 Toll Motorway in Poland. The project was implemented in two phases, with the first phase, worth € 875 million, completed in 2004 and the construction of Phase 2 expected to be completed by 2010. The Istrian Epsilon Toll Motorway Project in Croatia was organized in three phases, with the first phase completed in 1999 (€ 136 million), the second phase in 2006 (€ 270 million with some refinancing of Phase 1) and the last phase planned for completion by 2010 (€ 300 million).

The absence of a strategic sector approach to the development of PPP projects also contributed to delays in the procurement process. Projects were often implemented in isolation from sector policy. For example, the need for specific laws or regulations was not considered until a highly advanced stage. It took almost seven years between the selection of the concessionaire and the signature of the concession agreement in the case of the A1 Toll Motorway Project in Poland. This was partly due to the decision during procurement to amend a piece of legislation (Toll Motorway Act) to define the legal framework for PPP in the road sector. The lengthy legislative process explains the preference by the government for less time-consuming, project-specific, laws.

Public resistance partly resulted from both the absence of an assessment of willingness to pay and transparent procurement. The introduction of tolls in countries with a history of free roads is often difficult to implement. The indexation of tolls to inflation made some roads expensive for users, especially given the high inflation rate in several CEE countries in the 1990s. When this happened, road users opted for alternative routes, which lowered traffic for the toll roads. This was the case in Hungary where tolls for the M1/M5 highway were indexed to inflation, which reached 35 percent and 27 percent respectively in 1992 and 1993.

The introduction of a vignette system by several countries reduced public resistance at the cost of transferring a significant traffic risk burden to Government²⁶. However, the vignette system was criticized since it does not discriminate against heavy users versus occasional users. Everybody has to pay to access the network. However, to make it politically acceptable, vignette rates were set at low levels and hence could not compensate for the heavy capital investments required for new major road projects. Political intervention took place several times following non-competitive procurement processes and a change in Government, as it could not be determined if the tariffs and Government contribution represented the best possible deal.

The new policy of replacing tolls with vignettes was described by some concessionaires as a materially adverse action. This change in policy caused disputes and mistrust among project partners. Since the introduction of the vignette system on the Polish national road system in 2006, a dispute emerged between the State and the concessionaire of the A4 Toll Motorway Project on the level of compensation for lost revenue.

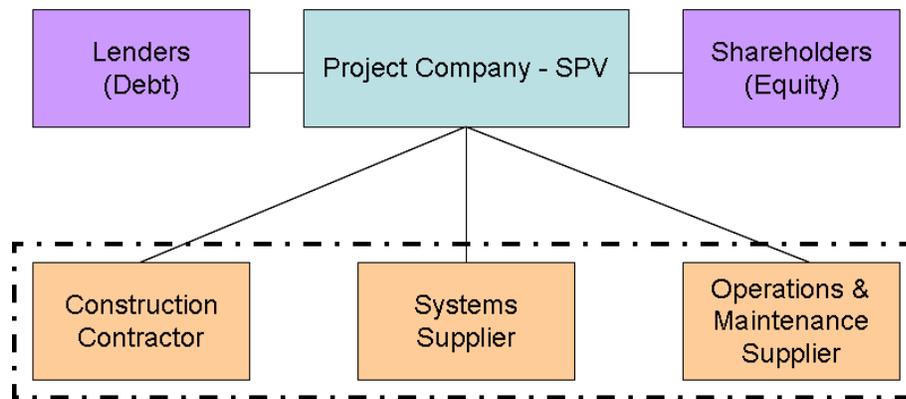
²⁶ With a vignette system, users are charged to access the highway network. Such system requires a lower payment by the user of a previously tolled road, given that this system is applied to all cars, regardless of their use of the road. In addition, traffic diversion to other roads to avoid payment does not take place, as tolls no longer exist.

3.2 Returns and risks for the private sector

Return on investment determines the attractiveness of a project to the private sector. The concessionaire will finance the project through debt and equity, and its shareholders will ask for a return commensurate with the perceived risk. If the return is not sufficiently high, the concessionaire will often ask for subsidies (capital or operation) or minimum revenue guarantee (to protect against insufficient traffic). In determining the amount of public support, the government should ensure that the project reaches the required return on investment for the private investors.

Potential concessionaires and their lenders also expect a sufficiently high Debt-Service Coverage Ratio (DSCR)²⁷ to ensure debt repayment. The assets, rights and interest of the project are usually structured into a Special Purpose Vehicle (SPV), which legally secures them to the financiers as collateral (see Figure 7). This means that the balance sheet of the parent(s) is no longer available for debt service and that the concessionaire must be able to service its debt (principal and interest) from the project's revenue as measured by the DSCR. Although a DSCR above 1 is sufficient to cover debt service, lenders usually ask for a higher value to incorporate the risk on the revenue side. The higher is the perceived risk, the higher is the target DSCR and the revenue that should be collected to cover debt servicing.

Figure 3-1: Simplified Structure of Special Purpose Vehicle and Relationship with Lenders, Shareholders and Suppliers



Source: Authors

Project design, the institutional framework and Government policy affect the price paid by the Government and users. The return on equity required by the shareholders is directly linked to the perceived risk profile of the project, sector and country. The lenders will also use project riskiness as a basis to set the interest rate and maturity of their loans. As a result, the concessionaire cost of capital (measured by the WACC²⁸) can increase by several percentage points because of the perceived risk of the project. The direct implication is that shareholders and investors are going to ask for a higher payment (from users or Government) because of its higher cost of capital and to compensate for the higher risk, thus reducing the value from PPP. It is therefore in the interest of the public sector to reduce the overall risk of the PPP project it wants to implement. Some of the factors contributing to an increased perceived risk are the following:

- Uncertainty related to traffic and tariffs (in the absence of guarantees)
- Weak substance and enforcement of contract law
- Lack of policy consistency (unpredictable changes can impact future revenue)
- Non-transparent or unclear procurement process (lengthy negotiations leading to higher bidding costs)

²⁷ The ratio of the cash flow available for debt servicing over debt service requirement in any given period (usually 6 months or 1 year)

²⁸ Weighted Average Cost of Capital: weighted average cost of equity and debt (weight is the relative proportion of debt and equity)

- Political instability (risk of operations disruption and contract renegotiation)
- History of unilateral Government decisions (contract renegotiations possible for political reasons)

3.3 Value for money as public sector priority

The focus in CEE/SEE countries should change from maximizing private investment to value for money. The concept of value for money (or VfM) was initially introduced in United Kingdom and has since been used by countries such as Australia, Ireland and South Africa. Value for money is defined as the “optimum combination of “whole-of-life costs and quality of the good and service to meet the user’s requirements, which is very different from the choice of goods or services based on the lowest cost bid.” A key tool in assessing the VfM of projects is the Public Sector Comparator (PSC)²⁹. It compares the cost of the PPP option with the risk-adjusted cost of delivering the same service by the public sector. This approach helps set the financial contribution by Government and user fees, and to select the project design with the highest VfM.

Value for money is generated by several factors, including (i) optimal (not maximum) risk transfer to the private sector, (ii) careful assessment of the services to be provided, (iii) flexibility provided to the private sector for innovation and efficiency, (iv) a lean and transparent procurement, and (v) capacity in the public and private sector. Several of these requirements were missing in the early (and sometime current) PPP projects in the region, and the focus should be more to improve the value generated from PPP by focusing on these key aspects. Box 1 below shows the identified drivers for VfM in the UK, applicable for any country.

Box 3-1: Generic Factors Driving Value for Money

The optimum allocation of risks between the various parties – requires that risks are allocated to the party, or parties, which are best placed to manage and minimize these risks over the relevant period;

Focusing on the whole life costs of the asset rather than only the upfront costs involved;

Integrated planning and design of the facilities-related services through an early assessment of whether the possible integration of asset and non-asset services (e.g. soft services) should deliver VfM benefits;

The use of an output specification approach to describe the Authority’s requirements which, amongst other things, allows potential bidders to develop innovative approaches to satisfying the service needs of the procuring authorities;

A rigorously executed transfer of risks to the parties which are responsible for them, ensuring that the allocation of risks can be enforced and that the costs associated with these risks are actually borne by the parties in the manner originally allocated and agreed;

Sufficient flexibility to ensure that any changes to the original specification or requirements of the procuring authority and the effects of changing technology or delivery methods, can be accommodated during the life of the project at reasonable cost to ensure overall VfM;

Ensuring sufficient incentives within the procurement structure and the project contracts to ensure that assets and services are developed and delivered in a timely, efficient and effective manner, including both rewards and deductions as may be appropriate;

The term of the contract should be determined with reference to the period over which the procuring authority can reasonably predict the requirement of the services being procured. This will require careful considerations of factors including: potential changes in end-use requirements; policy changes; design life of the asset; the number of major asset upgrades or refurbishments during the period of the contract; potential changes in the way services could be delivered (e.g. technical advancements); and the arrangements for the asset at expiry of the contracts;

There are sufficient skills and expertise in both the public and the private sectors and these are utilized effectively during the procurement process and subsequent delivery of the project; and

Managing the scale and complexity of the procurement to ensure that procurement costs are not disproportionate to the underlying projects(s).

Source: HM Treasury UK (2006)

²⁹ The PSC provides a quantitative analysis to support a qualitative judgment of the best procurement option, taking into account the risks of each procurement approach as a means of informing the wider value for money assessment (HM Treasury, 2003). It should be part of the early rigorous appraisal process of projects. For further references on the Public Sector Comparator, consult “Treasury Task Force technical Note 5: How to construct a public sector comparator”.

3.4 Legal, institutional and policy framework

Several of the problems facing projects in ECA countries could have been avoided by a stronger legal, institutional and policy framework. A PPP framework plays an important role in the attractiveness of a project to the private sector by specifying the “rules of the game”. This way the framework partly determines the cost of submitting a proposal and the overall risk of undertaking a project. Unclear and complex requirements and processes will raise concerns from potential bidders, potentially decreasing the number of proposals or triggering requests for guarantees or higher fees. In the case of Poland’s A1 Motorway Project, negotiations took seven years partly because the Toll Motorway Act had to be amended to define the legal framework for PPP in the road sector.

In more recent years, several countries in the ECA region have implemented a PPP/Concession law and created a PPP unit. New institutions, such as a PPP unit, help identify, design, procure and implement PPP projects. Although no single model exists for a PPP framework, international experience has shown that a solid PPP framework can increase value for money and the success rate of PPP projects. In the case of the CEE/SEE region, attempts to improve the framework have been made mainly in the last five years, which makes it difficult to assess the impact of the new frameworks. It is clear, however, that the PPP framework is increasingly seen as a way to improve the success rate of PPP projects.

Institutional Framework

PPPs are complex projects that require extensive coordination between the various ministries and agencies in the public sector. The Ministry of Finance has a central role in ensuring that the projects will deliver the planned savings and that any contingent liabilities are properly managed. The line ministries are usually responsible, together with other public institutions, for the overall sector strategy, regulation and project design. The same institutions will also be responsible for monitoring the implementation and managing the contract. The various institutions often have conflicting incentives. For example, a line ministry has the incentive to enter into as many PPPs as possible to provide more infrastructure and services, whereas the Ministry of Finance will focus on affordability and VfM. In addition, PPP projects require specialized skills not often available in a line ministry, thus making it difficult for Government to develop a solid PPP program.

Several countries have created a central PPP unit³⁰ to address institutional issues. The more active countries, such as Hungary and Poland in CEE, and Croatia and Bulgaria in SEE, have a PPP unit, while countries such as Romania and Serbia created a unit partly as a response to limited number of PPP projects. An overview of several PPP units in the region is presented in Box 2 below. The concentration of several key functions within a single unit was often seen as a way to resolve specific issues related to the design, procurement and management of PPPs. Such units can act as advisory or knowledge centers, or have more executive powers. Some of the functions that have been (at least partly) performed by a PPP unit are: (i) set-up of PPP policy and strategy, (ii) identification of potential PPP projects, (iii) analysis of individual projects, (iv) management of the project procurement and tender process and (v) management, monitoring and enforcement of the contracts.

Although a PPP unit is not necessary or sufficient for success, countries with successful programs tend to have one. A recent study on the role of PPP units and their contribution to successful PPPs concluded that³¹:

- Relatively successful PPP units directly target specific government failures in their countries;
- PPP units with executive powers tend to be more effective than those that are purely advisory. However, the power should be coupled with a mandate to promote and facilitate good PPPs. Otherwise, the unit merely wields a veto without adding much value;

³⁰ One such list of countries and the PPP units they have, including links to the unit websites, is available online at the European PPP Center website: http://www.epppc.hu/ppp_agencies. This list is not comprehensive and other documentation is available on the World Bank/PPIAF website: <http://www.ppiaf.org>. In the past year alone, Albania, Egypt, Malawi, Mozambique, Nigeria, Tanzania and Turkey have moved to establish PPP units. (World Bank/PPIAF (2007)).

³¹ World Bank/PPIAF (2007)

- Ineffective governments tend to have ineffective PPP units. Where government agencies are corrupt and uncoordinated, it will be difficult for PPP units to escape the same fate;
- Without high level political support for the PPP program, PPPs tend to be moribund; and
- In parliamentary systems, PPP units are usually attached to the Treasury Departments (Ministries of Finance). This reflects the natural role of the Treasury in controlling budget policy and expenditures, managing fiscal risks and holding the purse strings of government. In a non-parliamentary system, a PPP unit may be better set up attached to a powerful coordination agency.

Several countries in the world successfully implemented PPP projects before creating a PPP unit. One example is the Government of Victoria in Australia, which implemented a tram and suburban train transport in Melbourne and a major toll road before establishing Partnership Victoria Unit. In the region, Hungary created a PPP unit ten years after its first PPP projects in transport, and has received the highest level of investment in the region for transport PPP. However, these cases are rather the exception than the rule. A recent review of PPP units found “a high positive correlation between the success of a country’s PPP program and PPP units that perform more of the functions necessary to correct government failures”³². That said, strong PPP units still require strong expertise at the sectoral level to prepare and manage the projects.

Box 3-2: Examples of PPP Units in ECA

PPP Units in Russia: Russia has an interesting institutional set-up when it comes to PPP. While there is no PPP Unit at the Federal level, the City of St Petersburg decided to create one. At the Federal level, several Ministries are involved in developing the PPP agenda (incl. Ministry of Economic Development and Ministry of Regional Development) but the Russian Development Bank (VEB) is taking a leading role in PPP. Recently, VEB has created a PPP Center with the mandate to develop pipelines of PPP projects in regions (Oblasts). However, it is not clear if VfM analysis is conducted. In terms of PPP projects in transport, the City of St Petersburg is the most advanced region. Although none have yet reached financial close, at least four were at an advanced stage of procurement in early 2009. To support the development of more PPP projects, the City decided to create a PPP unit under the Committee for Strategic Investment. Although the global financial crisis has slowed the development of PPP projects, the PPP Unit is expected to play a role in strengthening the overall framework, as well as in producing guidance notes and technical support to line committees in charge of developing PPP projects.

PPP Unit in Hungary: The PPP Unit was established in 2003 in the Ministry of Economics and Transport with the mandate to create adequate conditions for the introduction of PPP in Hungary. Although the unit acts as a knowledge center for all ministries, it has the function of analyzing and commenting on PPP proposals before they are submitted for central approval. An interdepartmental committee was set-up between the ministries of Economics and Transport, Finance, Justice and the Central Statistics Office to (i) consider PPP plans prepared and submitted by departments and local governments, and (ii) monitor the implementation of PPP projects.

Investment and Development Agency in Latvia: The agency reports to the Ministry of Economy and is also responsible for exploring PPP opportunities, providing information to municipalities and private investors. It also provides initial consulting on the evaluation of project ideas.

Additional examples include PPP units established at high levels of government including Bulgaria, Romania, Serbia, and the Czech Republic.

Source: Timar (2007), PPIAF (2007), and authors.

³² World Bank/PPIAF (2007)

Legal Framework

A supportive legal framework helps attract private sector financing and ensures that PPP projects generate added value to the public. The role of the legal framework is to put in place checks and balances to guarantee that a PPP project will deliver its expected value to the public. The set of decrees, laws and regulation form the legal environment, which often has been initially developed without having a PPP in mind. This does not mean that the legal framework should always be modified, or that a new PPP or Concession law is absolutely necessary.

Often, the initial legal framework had to be changed because it did not allow for PPPs. In a number of countries, the State was originally legally responsible to provide public services. In most of these cases, a change in the law was required to allow for a PPP. In other cases, all or certain types of infrastructure were defined as State property, therefore preventing (or complicating) the implementation of BOT-type projects. Although no single model of legal framework exists, it is important to ensure clarity, responsibility and a degree of flexibility in allowing PPP projects. A general PPP law is often sufficient, defining the general principles and responsibility of all parties.

According to the UN Legislative Guidelines on Privately Financed Infrastructure Projects³³, a good PPP law should incorporate the following:

- The law should provide the scope of authority to award PPP projects (identification of authorities, eligible sectors and geographical subdivision of regional PPP projects);
- The law should describe an institutional framework that enables sound administrative coordination;
- No unnecessary limitations should be placed on the allocation of risks;
- The law should clearly state the provisions for providing financial or economic support to the project;
- The law should provide transparent, competitive procedures for selection of bidders, requesting proposals up to negotiation and contract award;
- The law should describe exceptional circumstances for exemption of competitive procedures;
- The law should address how to deal with unsolicited proposals;
- The law should enable the private party to collect tariffs or user fees, subject to regulation; and
- Standard agreements and other guidance materials should be available.

Several countries in the region have introduced, or are preparing, specific PPP legislation. In the CEE region, Poland and the Czech Republic have comprehensive PPP legislation in place, while most countries in this region are at a less advanced stage, with legislation being proposed or some legislation in place or being drafted. The PPP Act in Poland, signed in 2005, eliminated double taxation and introduced more flexible regulations regarding public contracts. Countries in the SEE regions tend to be at the initial stage of implementing PPP legislation, with Romania and Serbia being countries at a comparatively more advanced stage. Russia, which has limited experience in PPP in transport, has not only a Federal Concession law but also a regional PPP Law for St Petersburg.

An important but often neglected element in PPP legislation in the CEE/SEE region is a clear definition of PPP and scope of the application of the law. Clarity was found necessary to limit the risk of a challenge to the validity of the PPP agreement. A relatively recent review of PPP legislation³⁴ found that most countries in the region have minimum compliance with international law standards when it comes to definition and scope of the concession law. Countries that were rated as "low/partly conforms" in the region were Croatia, Latvia, Estonia and Poland. The three countries with higher rating were the Czech Republic, FYR Macedonia and Lithuania, and the Czech Republic was also found to fully conform to international legal standards in other areas of PPP legislation.

³³ www.uncitral.org.

³⁴ Gide Loyrette Novel (2005).

In addition, the Public Procurement Law may require updating to allow for private investment. Traditionally, the procurement law was designed for the procurement of goods and works, with the objective of selecting the cheapest offer for very precisely defined works. With PPP, although some technical specifications are provided, the focus is on selecting a concessionaire that will provide a service for 20-30 years. More flexibility is usually given to the concessionaire for the technical solution. The main objective is to maximize the VfM over the concession period. This explains why most of the changes in the legal framework include an update of the public procurement law. This was the case in Romania, where the law on PPP was passed in December 2004 and was followed by a comprehensive procurement Act in 2006.

Having the right set of regulations to complement a PPP/Concession law and ensuring consistency with EU legislative framework is also important for CEE/SEE countries. The law is not always the best instrument to detail specific requirements and a combination of a broad law with more precise set of regulations is often preferred. Moreover, although the EU does not have an agreed definition of PPP or set of regulations, “any act whereby a public entity entrusts the provision of economic activity to a third party must be examined against the rules and principles of the EU Treaty”³⁵. These refer to principles of transparency and equality of treatment. A number of EU directives regulate the detailed provision of cases in which public contracts are awarded.

Policy Framework

The third important element of the PPP framework is PPP Policy and Regulation. A Policy Statement for Government gives clarity to the public and private sector on Government objectives in starting a PPP program. A Policy Statement can complement existing law and regulations and provide a justification for specific decisions. For example, these decisions can identify the sectors in which PPP will be initially considered or if unsolicited proposals will be contemplated. Some of these decisions can also be expressed as regulations, which are easier to modify than a law. Box 3 below presents the overall framework in the Czech Republic, including the main elements of the Policy Statement.

Box 3-3: PPP Framework in the Czech Republic

While Hungary has adopted an approach of “learning by doing” the Czech Republic has greatly emphasized having a solid framework for PPP. This approach was developed following initial failures in implementing a toll based concession of the D5 motorway.

The PPP Centrum was formed in 2004 as a joint stock company, with the Ministry of finance as its only shareholder. Although the unit was originally established as a knowledge center, to speed up the preparation of the legal environment and procedures, it now also serves as technical advisor to the public sector for project support. From the beginning of 2007, and following the UK example, the unit has been working as fee-based service.

The new law on Public Contracts and Concession was adopted in July 2006, incorporating the 2004 Directives on procurement and on Concessions for public works and services. A Government Policy on PPP was prepared, defining precisely the role of each player and what is expected from PPP. It also clearly defines fundamental principles in the implementation of PPP, which include Value for Money, Risk Transfer, Specification of Public Standards, clear authority and other pertinent details.

It is too early to assess the impact of these measures but a number of projects are in feasibility study or early procurement stages. These include several concession-based pilot projects, including the Prague Airport Link and motorways. It is believed that such framework will increase the probability of success of PPP projects and will send a strong signal to the business community.

Source: World Bank (2007)

³⁵ O. Maslyukivska (2005) and reference to articles 43 and 47 of the EU Treaty.

Finally, a strong sector policy and regulation is essential for the sustainability of a PPP project. Some sectors such as railways are unlikely to attract private sector investment in the absence of reform and clarity regarding sector regulation. Even in the highway sector, a project's revenue from tolls can be significantly impacted if parallel and non-toll based roads are simultaneously allowed. The financial sustainability of a metro or Light Railway Project is highly sensitive to policies encouraging the use of cars or low fare policy. A lack of clarity, consistency (frequent changes in policy) or fairness (such as policies seen as favoring one company over another) will increase the perceived risks of investing in the project. This usually results in more commercial risks being transferred to Government or even a smaller number of bidders, thus reducing the value of the PPP option. In Poland, policy changes with the introduction of the vignette system to replace tolls contributed to complex renegotiations. Another example is the privatized Estonian Railway, which considered the decision to allow open track access as significantly impacting its revenue and profitability.

Inconsistent policy also increased the overall risk of projects in the region. Although the Government cannot foresee policy changes needed in the 20-30 years following a project launch, it should recognize that some future decisions can influence the project's financial performance and sustainability. The decision in many countries to switch from toll roads to vignettes often resulted in compensation to the concessionaire for insufficient revenue. Another example is the impact on Estonian Railways of the decision in 2005 to open access up to 100% of track capacity. Even if this decision was influenced by the country's EU accession, its financial impact was considerable. Some countries in the region, however, assessed the impact of policy decisions, compensating the concessionaire for a reduction in revenue. After the Croatian Government decided in 2006 to reduce some tolls by 56%, the concessionaire has been compensated by an amount equal to the difference between the relevant toll rate on that section and the discounted toll.

Advantage of strong credit rating and mature local capital markets

A poor credit rating is likely to impact some SEE countries more than others. Credit rating is a measurement of investors' perception of a country's credit risk and is provided by specialized agencies such as Standards & Poor's (S&P), Moody's and Fitch³⁶. The higher the rating, the less likely is it for the government to default on its loan commitments. The rating is meant to be an independent assessment of the country's investment environment risk. Although all the rating agencies use their own methodologies and systems, their rating decisions appear consistent with each other. As shown in table 1 on page 24, only Bulgaria and Croatia in the SEE region have an investment grade rating above BBB, while all CEE countries are considered investment grade.

³⁶ The ratings are assigned by credit rating agencies such as Standard & Poor's, Moody's or Fitch Ratings and have letter designations such as AAA, B, CC. The Standard & Poor's rating scale is as follows: AAA, AA, A, BBB, BB, B, CCC, CC, C, D. Compared to S&P, the only difference in the scale used by Fitch is that rating RD exists between C and D. Anything lower than a BBB- rating is considered "non-investment grade" i.e. is speculative while a rating higher than BBB is considered "investment grade". The Moody's rating system is similar in concept but the verbiage is a little different. It is as follows: AAA, Aa1, Aa2, Aa3, A1, A2, A3, Baa1, Baa2, Baa3, Ba1, Ba2, Ba3, B1, B2, B3, Caa1, Caa2, Caa3, Ca, C. For Moody's, anything less than Baa3 is considered "non-investment grade". The rating agencies also offer a "credit watch" i.e. whether a rating is likely to be upgraded (positive), downgraded (negative) or uncertain/neutral (stable).

Table 3-1: Credit Ratings of CEE and SEE countries** (February 2009)

	Standard & Poor's	Moody's	Fitch
SEE Countries			
Albania	n/a	B1 (stable)	n/a
Bosnia-Herzegovina	n/a	B2 (stable)	n/a
Bulgaria	BBB (negative)	Baa3 (stable)	BBB- (stable)
Croatia	BBB (negative)	Baa3 (stable)	BBB- (stable)
FYR Macedonia	BB+ (negative)	n/a	BB+ (stable)
Montenegro	BB+ (negative)	Ba2 (negative)	n/a
Romania	BB+ (negative)	Ba1 (upgrade review)	BB+ (negative)
Serbia	BB- (negative)	n/a	BB- (negative)
CEE Countries			
Czech Republic	A (stable)	A1 (stable)	A+ (stable)
Estonia	A (negative)	A1 (RUR-)*	A- (negative)
Hungary	BBB (negative)	A3 (negative)	BBB (stable)
Latvia	BBB- (watch negative)	Baa1 (negative)	BBB- (negative)
Lithuania	BBB+ (negative)	A2 (RUR-)*	BBB+ (negative)
Poland	A- (stable)	A2 (stable)	A- (stable)
Slovak Republic	A+ (stable)	A1 (positive)	A+ (stable)
Slovenia	AA (stable)	Aa2 (positive)	AA (stable)

Source: www.standardandpoors.com, www.moodys.com, www.fitchratings.com

*Rating under review

**Sovereign default rating for foreign currency denominated issues

A country's credit rating has a direct impact on total cost of a PPP project and the ultimate price paid by Government and users. Lenders in a PPP project will price the debt based on a reference interest rate (such as LIBOR)³⁷ and will add a spread corresponding to the country, sector and project risk. The cost of debt is linked to the credit rating such that a lowering of a credit rating increases the interest rate charged to the concessionaire. Given the need for the concessionaire to reach a minimum return on its investment, the direct implication is higher tariffs for users or contribution from Government. Credit rating is also used by investors to assess the overall country risk; they will request a higher return on investment in a country with a low credit rating.

A credit rating also contributes to the need to provide additional guarantees or credit enhancement measures. A bad credit rating does not necessarily scare investors away but it does increase the perceived risk of investment. If revenue to the concessionaire is collected by the Government, as with toll roads and urban transport, or directly provided by the Government, as with availability payments and minimum revenue guarantees, investors and lenders will be worried that the Government may renege on its contractual obligations at some point during project life. They may require securing the revenue in a fund and disbursed directly to the concessionaire, or request the involvement of International Financial Institutions (IFIs)³⁸.

Mature local capital markets can reduce project risk by allowing local borrowing. In practice, it is challenging to have local capital markets that can provide long-maturity debt for PPP projects. Experience shows that countries with larger and more developed economies are also more likely to have relatively well-developed capital markets. In the case of the CEE/SEE region, CEE countries tend

³⁷ LIBOR stands for the London Inter Bank Offered Rate which is a commonly used and referenced daily interest rate at which banks offer to lend unsecured funds to other banks in the London wholesale money market (inter-bank market).

³⁸ IFIs such as the World Bank or the EBRD provide financing and risk mitigation instruments that can reduce the overall cost of the PPP project by reducing the perceived country risk leading to cheaper costs for governments and ultimately benefits for users and taxpayers.

to have more mature capital markets compared to SEE. Developing a local capital market will ultimately bring value by lowering the risk and capital cost of the project

In the absence of strong domestic capital markets, project debt is often provided in foreign currency. This means that the project becomes highly sensitive to currency fluctuations³⁹. While gradual depreciation can be forecast using historical trends, it is impossible to predict a sudden collapse of the local currency. Although Governments have little direct control over flexible exchange rates, their macroeconomic policies can indirectly cause currency fluctuations. The private sector is reluctant to bear this type of foreign exchange risk. In practice, interest rates are often adjusted to compensate for the possible depreciation of the local currency to allow the concessionaire to repay the debt principal and interests every year. The currency risk can be mitigated by borrowing in local currency, assuming that lenders are willing to lend at reasonable interest rates and maturity terms to the concessionaire. Of course, some materials or expertise required in a PPP project may have to be imported from abroad and purchased in a foreign currency. In those cases, the Government may be required to assume the currency risk.

Foreign exchange risk should not be underestimated as countries can experience strong currency fluctuations. When a currency significantly depreciates, the price of imported goods increases and the Government can find itself with limited foreign reserves. To avoid a political backlash, Governments should not raise tariffs to unaffordable levels when consumer prices are increasing. The Government may have to compensate the concessionaire for depreciation, especially if the currency collapses. One way to manage the foreign exchange risk would be to enter into a hedging arrangement with a commercial bank. A currency hedge would provide compensation for the Government if the currency was to depreciate below a pre-determined threshold. Although some IFIs have tried to introduce liquidity facilities to minimize the harmful effects of currency depreciation, such instruments have not been used widely.

Mature local capital markets will also increase project attractiveness to investors by providing an improved exit option. Equity holders are not only interested in dividends paid by the project but also in the increase in market value of the shares. They can achieve their return by selling their shares at a higher amount than initially invested. The possibility to benefit from capital appreciation increases project attractiveness. By selling the shares on the local capital market the investors can prematurely exit the concession, which they also find highly valuable. The Government does not have to worry about the value of the shares, given that the market will price it based on current performance and future expectations.

3.5 Implementation and planning

Experience in the region shows some very large or complex projects that were undertaken and subsequently had to be reduced in scale. An example of such projects in the region include the A1 Toll Motorway project in Poland, which was originally planned as a single stage project, and was later divided into two phases (of respectively 90 km and 62 km). Another example is the A2 Toll Motorway Project in Poland, which had to be divided into phases, with a section excluded from financing.

Size and complexity increase project risk and can deter private investment. As every PPP project comes with considerable transaction costs, sufficient scale is needed to launch a project. However, as project size increases beyond the minimum level, so does project risk. The concessionaire finances the project through debt and equity. The larger the project, the higher the borrowing needed, as PPP projects usually have a high proportion of debt relative to equity. As most motorway PPP projects were expected to receive a significant, or 100 percent, share of revenue from tolls, the risk was considerable that the traffic would prove insufficient for the concessionaire to service its debt,

³⁹ The discussion here and in the following paragraphs assumes that the country has a flexible exchange rate regime, which is the case in most countries in the Europe and Central Asia region.

especially for countries with limited experience with toll roads. In such cases, lenders would be reluctant to provide large-scale financing, while potential bidders would be less inclined to submit a proposal without charging a higher price to reflect the traffic risk. The higher cost of risk to the concessionaire would consequently decrease the VfM from the project to the Government.

For large motorway projects, a phased approach to construction may be ideal. Many SEE countries have aspirations for building core sections of their road network (on the SEETO and TEN routes and corridors). Many of these sections are large both in size and cost compared to the financial capacities of the countries and the levels of expected traffic. To reach a compromise between aspirations and the project realities, recommendations for phased approaches have been given in many key studies in the region⁴⁰. A phased project is easier to plan and implement, requiring fewer resources from the Government, especially at earlier stages of PPP experimentation. In addition, a phased implementation allows testing traffic assumptions on the first section of a road before moving to the next. This way the traffic risk can be better anticipated and reduced for the subsequent phases. A phased approach was successfully used, if not originally intended as such, for the M5 Toll Motorway in Hungary, the A1 and A2 Toll Motorways in Poland, the Istrian Epsilon Toll Motorway and the Zagreb-Macelj Toll Motorway in Croatia.

3.6 Project appraisal

Project Identification and the importance of economic and financial analysis⁴¹

The decision to opt for PPP in ECA countries was sometimes driven by political rather than economic and financial reasons. For current and prospective EU members within the region, private financing of large-scale projects was occasionally expedient for political rather than economic or financial reasons. Meeting the convergence criteria for the Euro requires government budget discipline, which leaves little room for deficit financing of large transport projects. With limited fiscal space, some CEE/SEE countries viewed PPPs as arrangements to replace public financing with private investment. In these instances, robust economic and financial analysis of the projects at hand was often considered secondary, or neglected.

The traditional social cost-benefit approach, developed when PPPs were uncommon, says the government should undertake all projects that increase social welfare. Setting PPPs and fiscal constraints aside for the moment, the textbook approach to project appraisal and selection says that the government should undertake all projects that make a positive contribution to increasing social welfare. To determine which projects increase social welfare, the analyst would estimate all the economic costs and benefits over the lifetime of the project. The relevant economic costs and benefits include all economic impacts, irrespective of to whom they accrue, including environmental and social impacts caused by the project, not just those paid or received by the implementing agency. The analyst then estimates the net present value of each project by summing the discounted stream of economic costs and benefits for each year of the life of the project. Those projects that have positive net present value, where the discounted benefits exceed the discounted costs, should be undertaken.

This framework needs to be modified when the government faces a budget or fiscal constraint. If the government can borrow as much as it wants, or can raise tax revenue without limit, it can finance every project with a positive economic return. But if it faces financial constraints, it may be unable to finance some such projects, and one possibility is raise the threshold economic internal rate of return as a rationing device. In particular, EU members or applicants may be constrained by

⁴⁰ Current projects in Kosovo and Montenegro being two examples

⁴¹ Financial analysis of a project estimates the profit accruing to the project-operating-entity or to the project participants while economic analysis measures the effect on the national economy. In financial analysis, all expenditures incurred under the project and revenues resulting from it are taken into account. Economic analysis attempts to assess the overall impact of a project on improving the economic welfare of the citizens concerned by taking into account both market and non-market elements like social inclusion or environmental protection.

the EU's debt and deficit rules. These rules say that a country's budget deficit should not exceed 3 percent of its GDP and that its gross public debt should not exceed 60 percent. Individual countries may have their own, sometimes more stringent, fiscal targets. In the CEE/SEE countries, pre-existing debt, both external and domestic, other liabilities, and limited fiscal income, can constrain the borrowing decisions of governments.

Project selection should maximize economic return and respond to fiscal constraints. Another approach might be to reflect the limitations on the availability of public investment by formally introduced into the appraisal process a weight on the public money used – estimating the marginal cost of public funds. Larger projects, involving more public money, would therefore have to demonstrate greater benefits to retain their unweighted ranking. When the constraints are complex, finding a solution is a complex problem whose precise solution may require the use of linear programming. In practice, the use of simpler rules of thumb might be justified.

The possibility of PPPs introduces new issues. If a project were entirely funded by a private company without any external costs or benefits, the government would not need to conduct a social cost-benefit analysis of the project. The private company would undertake a financial analysis of the proposed investment independently deciding whether to invest. An example of this could be a road or railway on private land serving only to connect a mine to a nearby private port. However, most transport projects, even closed toll roads, form part of an interrelated network. They are identified and prioritized by the government within a strategic framework and partly funded by the government through land grants, subsidies, guarantees, or availability payments. In such cases, the arguments for cost-benefit analysis apply regardless of whether the approach is a PPP or pure public investment. The possibility of government support further complicates the appraisal process; now the process has two parts: (i) whether the project increase social welfare, irrespective of the source of funds; and (ii) whether the public contribution is justified by external social benefits that would not have been realized without it.

In the absence of fiscal constraints, the government could first select projects and then choose which of them to undertake as PPPs. Setting aside fiscal constraints, the government's task is to choose all projects that make a positive contribution to social welfare, irrespective of the source of funds. However, they also need to determine whether each project should be carried out as a PPP or as a public investment – or more succinctly, how much and what type of a contribution should the public sector make to carry out a particular project.

Such a two-stage process is not perfect, but may form the basis of a reasonable approach. The two-stage approach may not maximize social welfare, because the subsequent decision whether to do the project as a PPP may affect the amount and distribution of net economic benefits from a project. That is, the first-stage question — whether to undertake the project — cannot necessarily be answered without first calculating its costs and benefits as a PPP and as a publicly financed investment. But if it is reasonable to assume that the net benefits of a project do not vary greatly according to whether the project is undertaken as a PPP or as a public investment, the following may be a reasonable compromise. The government first undertakes cost-benefit analysis without considering the choice between public investment and a PPP. Those projects that clearly had positive economic NPV are then selected, and for each a decision is made whether to undertake the project as a PPP or as a public investment. Then a subsequent appraisal determines whether the scale of the public contribution to the specific PPP is justified by the additional social benefits that would not be realized by a purely privately financed project.

In practice, fiscal constraints must be considered because they may affect PPPs and public finance differently. For example, EU accounting rules treat a PPP as public or private according to the allocation of project risk. If the private sector bears the construction risk and either its availability risk or its demand risk, the project is considered to be private for accounting purposes. Such a project does not increase government debt or deficit as measured by EU rules (unless and until the government has to disburse cash). So the government can undertake the project without immediately violating the EU's limits for debt levels and public deficit. By contrast, if the private sector does not bear construction risk, and either demand or availability risk, the project is considered to be public for

accounting purposes. Even though the government may not be borrowing any money in a legal sense, the accounting imputes to the government a debt equal to the total capital investment in the project.

In the presence of certain fiscal constraints, a project may be worth undertaking as a PPP even if it would be cheaper to undertake it as a publicly financed investment. Suppose that a government has limited fiscal space, i.e. it has reached its debt or deficit limit, but still has a prospective transport project with a strongly positive NPV. Suppose also that it has calculated that the project would be undertaken more cheaply as a public investment than as a PPP considered private for accounting purposes. But the government cannot undertake the project as a public investment without exceeding its debt or deficit limit. So its choice is between the PPP and not having a project. If the project still has positive economic NPV as a PPP, the PPP is better than not having a project.⁴²

This argument can of course be misused. Among other things, the project's NPV may be exaggerated and actually be negative. And, even if its economic NPV is truly positive, its *financial* NPV for the government may be negative—in which case it may be unaffordable even if satisfies all short-term fiscal constraints. In other words, the government support needed to make it financial viable would be too expensive given the net economic benefits.

Making good decisions requires analysis of their long-term effects. The government's future revenues must be sufficient to pay for all future expenses, including interest on existing debt. Typical investment projects require net expenditures in the first few years and are expected to generate net benefits in later years. Many PPPs are different. They typically require some government subsidies during the construction period, and significant expenditure during the operating period, especially with an availability payment. So even if PPPs can be affordable in the short term, they may become unaffordable in the long term. If governments do not undertake a complete financial analysis of their investment choices—perhaps because expected future payments are small in the scheme of things—they need at least to have a rough understanding of their long-term fiscal prospects. They need a long-term (for example, 30- or 50-year) fiscal projection. And they need to know what their payments for proposed PPPs are likely to be over the long term. These are vital and usually overlooked aspects of introducing PPPs.

Financial analysis should guide the decision to undertake a project as PPP and the level of Government financial support. Financial analysis will determine the return on investment and the capacity of the concessionaire to repay its debt (measured by the DSCR). Without such analysis, the Government cannot determine the minimum financial contribution or implications of any guarantees it could provide. Government financial support is necessary if the return is below the shareholder requirement, given the project's perceived risk, and if in any period revenue would be insufficient to service the debt. Financial analysis is also used to assess the total public support the project is likely to require and to test different policy implication, such as level of tolls. For example, financial analysis allows the government to set toll rates to sufficiently high, within the limits of affordability and elasticity considerations, so that bidders do not quote unrealistically low rates, which could lead to financial distress and renegotiations.

Only PPP projects with a high combination of economic and financial returns should be selected for implementation. Assuming the public finance resources of CEE and SEE countries are limited, they should prioritize projects with high economic and financial returns. Projects with a high economic return but a lower financial IRR could also be implemented as PPP with Government financial support, whereas projects with a low economic return should not be considered even if the private sector was willing to invest.

⁴² A full analysis would also have to consider whether the government could increase taxes to pay for the investment, and if it could, whether that was optimal. The full analysis would not, however, change the result that a PPP might be worth undertaking even if it was more expensive than the public financing.

The importance of a feasibility study

Preparing a robust feasibility study was the exception to the norm. Few projects in the ECA region benefited from a complete feasibility study with economic, social, environmental, and financial analysis. While some countries undertook feasibility studies to identify potential candidates, the same was not done to structure individual projects. To illustrate, Croatia undertook feasibility studies in the 1990s for the identification of potential PPP projects but not for individual projects, such as the Zagreb-Macelj Toll Motorway project.

The absence of feasibility studies or robust appraisal kept alive projects unlikely to attract private participation. Many of these projects later failed for being unviable. Several projects in the region were procured without a feasibility study and in some cases without traffic forecasts. As a consequence, many of the projects did not attract bidder interest without a minimum revenue guarantee, while others were renegotiated only a few years into operations, with increased financial contribution from Government.

Without VfM analysis, it was impossible to assess the merits of PPP compared to alternative project designs. Given the complexity of PPP projects, the standard measurement of benefits of a PPP project is the VfM analysis. VfM is calculated at the feasibility level and used during procurement to confirm the value generated by the best proposal. However, none of the ECA countries reviewed calculated either VfM or PSC at any stage. Although debate surrounds the PSC⁴³, the point is that quantitative assessment of VfM is important despite its absence in PPP projects in the region. Without a VfM analysis, it is possible that Governments overpaid the private sector for their participation in PPPs.

Overoptimistic traffic forecasts and underestimation of willingness to pay reduced the attractiveness of projects and ultimately delayed their implementation. It is common that traffic forecasts are overestimated, sometimes by 30%. The initial PPP projects in the CEE fit this pattern. Examples of projects being affected by lower-than-forecast demand are the M1/M5 Motorway in Hungary and the Ventspils Port in Latvia. Traffic was often much lower than forecast, even when done by professionals. This shortcoming was exacerbated when users started opting for alternative roads. That no survey was conducted of the users' Willingness-To-Pay (WTP) can explain why several toll roads either faced public resistance or were simply abandoned in favor of alternative roads. A more solid traffic forecast and assessment of users' WTP would help determine the attractiveness of a PPP project to the private sector, and the level of public support provided.

Without sufficient knowledge of the required rate of return and other project financials, the Government financial contribution will be determined by negotiating skill. Only a few projects were developed with results from financial analysis. Such analysis should determine the financial rate of return of the project and its DSCR for various scenarios (including lower-than-expected traffic) and several options (such as tariff level, minimum revenue guarantee or availability payments). Financial analysis not only helps determine the financial performance of the project (financial IRR and DSCR) but also the total contribution of Government under various scenarios. With knowledge of the merits of different options, the Government is in a stronger negotiating position to reduce its financial contribution to the minimum required to ensure project viability.

Limited attention was paid to the identification and management of implicit and explicit contingent liabilities. Governments are increasingly providing financial support for projects. Postponing payments into the future while authorizing infrastructure construction in the present is tempting to Governments, as future payments are not always included in a budget planning cycle of at best a couple of years. These future payments will likely restrict the Government's ability to invest in much needed infrastructure projects and other essential spending. In addition, the provision of minimum revenue guarantees or availability payments increases the number of contingent liabilities for Government. Although the provision of these guarantees is sometimes justified, the cumulative amount can threaten Government fiscal sustainability.

⁴³ PSC has been used in the UK and more developed economies and developing countries often find it difficult and time-consuming to design and use PSC for PPP projects.

In a key decision, Eurostat allows that Governments account for availability payments without considering contingent liabilities⁴⁴. According to this decision, a project can be considered a PPP and accounted off-balance sheet by the Government if the private partner bears construction risk and either commercial (traffic) or availability risk⁴⁵. This decision has encouraged transport projects to rely on availability payments for the concessionaire. They will be paid in full as long as the service is provided in a satisfactory manner. The project may become more attractive to the private sector, as the government is in practice assuming most of the commercial risk and associated liabilities. As traffic considerations do not matter as much with an availability payment mechanism, this decision encourages more projects to be developed without an adequate feasibility study or sufficient contribution from users.

3.7 Risk sharing

Appropriate risk allocation between the public and private sector can increase a PPP project's VfM ultimately reducing the financing share of the Government and user tariffs. The overall project risk will determine the rate of return required by equity investors and the borrowing terms demanded by lenders. The higher the risk, the higher the required shareholder's return and offered interest rates from lenders. Higher project risk will therefore contribute to higher tariffs and Government financial contribution. Overall project risk can be reduced by appropriately allocating each risk to the party most able to manage it. Several countries now require optimal risk transfer between the public and private sector.

Transferring maximum risk to the private sector increases the total project cost and the risk of project failure. In many earlier PPP projects in the region, the private sector was forced to assume risks beyond its control. For example, the acquisition of land on a compulsory basis cannot be controlled by the private sector since such acquisition requires legal powers only available to Government. If the risk of land acquisition was allocated to the private sector, it would either refuse to take it or overprice it into its cost allowance for risk. Another example of inappropriate risk allocation is commercial risk, which was often also fully transferred to the private sector.

Demand risk was often inappropriately transferred. While initial projects tried to transfer demand risk to the private sector, the trend has now reversed with the Government assuming full responsibility for traffic demand. Initial PPP projects in the region were designed without Government contribution. In most of these early cases, the demand risk (such as the number of vehicles per hour, passengers per train, TEU per year) was fully born by the private sector. When traffic proved lower than forecast, while increasing tariffs was not allowed, the concessionaire had no other option but to ask for Government support. If the concessionaire maximized the toll to recoup the investment, strong public rebuke followed, including court action. A case study on optimistic traffic forecasts and public resistance to set toll rates is presented in Box 4 below. In more recent years, and encouraged by Eurostat decision on accounting of PPP as off-balance sheet transaction, there has been an increasing use of availability payments. Availability Payments in practice transfers all demand risk to Government, as the concessionaire will be guaranteed a payment regardless of the use of the transportation service, and increases contingent liabilities.

⁴⁴ Eurostat (Statistical Office of the European Communities) Decision 18/2004 dated 11th February 2004.

⁴⁵ Under the Eurostat decision, Government is considered not to bear the availability risk if it is entitled to reduce significantly (as a kind of penalty) its periodic payments, like any normal customer could require in a commercial contract. This means that all the private sector has to do is make sure the facility is available as agreed in the contract and payment is assured leaving much of the demand risk to be borne by the Government.

Box 3-4: Optimistic Traffic Forecasts and Public Resistance to Set Toll Rates: The Hungary M1/M15 Toll Motorway Project

This case illustrates the impact of traffic forecasts on several transport PPP projects and the difficulty the region had to justify high toll rates, following the move to a market economy.

The project consisted of a 43 km section of the M1 Motorway and 15 km of the M15 Motorway, which was expected to be fully financed by tolls. Hungary was the first CEE country to decide in 1991 to finance its motorway development exclusively through private concession and this project was the first toll motorway tendered and implemented in CEE.

The project was tendered under open international competitive bidding in 1992-93, with the concession agreement signed in April 1993 and the financial close reached in November 1993. The completion of construction and opening of the M1 section was achieved in January 1995, on schedule and within budget, despite an ambitious construction period and high inflation. However, lower-than-expected traffic (the risk of which was borne by the concessionaire) contributed to the concessionaire not being able to service its debt.

As the construction of the remaining sections of the M1 did not pose specific problems (no large structures required, flat land with little ground risk, no particular archaeological risk, no specific environmental issues), the contractor was able to broadly accept these risks and offer a turnkey, lump sum and fixed price for the construction works.

The acceptance by the private sector of the full traffic risk was driven by a combination of tender requirements (the Ministry did not want to accept any traffic risk), competition (showing low projections would mean losing the tender) and the relatively high traffic flows indicated by the various studies. The private sector agreed to accept this traffic risk provided that it would be "free" to set the toll rate, which was translated into fixing the initial maximum toll rate within the concession contract, allowing for rate increases on the basis of a particular formula that considered the Hungarian inflation rate and the devaluation of the exchange rate between the Hungarian Forint and the currencies in which the project would be financed. The initial toll rate was set to maximize revenue.

Traffic volumes were about 40 percent lower than anticipated, despite the forecasts being prepared by independent experts. Moreover, the toll rate that appeared the highest in Europe per km traveled led to the accusation that the concessionaire was abusing its dominant position at the expense of the Hungarian users and resulted in a court case against the Concessionaire. Within this changing environment, the Ministry "refused to take sides" arguing that the project it had so vigorously promoted was a private undertaking which needed to be privately resolved. In December 1996, the EBRD as security agent, realizing that the financial case for this project as a private venture had ceased to exist, declared a potential event of default and the construction works on the M15. Against all intentions, the negotiations with the Ministry did not start prior to the national elections in 1998.

The EBRD ultimately negotiated a deal with the Ministry for taking on a larger part of the debt through substitution for the Concessionaire and the investors to the transfer of the concession to a special purpose public sector vehicle.

Source: World Bank Toolkit for Public-Private Partnerships in Highways

Risks such as construction delays, cost overruns and operational problems are usually transferable to the private sector. Concessionaires in the region have been responsible for developing the project design, carrying out construction works and managing all operation and maintenance activities. Usually the private sector is also responsible for possible future defects in the assets. In some cases the concessionaire was also responsible for unforeseen ground conditions such as contaminated lands. This happened, for example, with phase 1A of the Istrian Y Toll Road Project, while the Government assumed the risk for Phase 1B. Risk for land acquisition, and utilities diversion and connection, is usually allocated to the Government.

In international practice, traffic risk is shared between the public and private sector. The Government has some control over the use of the service through policy decisions⁴⁶. However, the concessionaire also can increase the use of the service by reducing costs and tariffs and by improving quality. This may apply more to urban transport, seaports, railways and airports than for toll roads, but traffic risk can be shared between the Government and private sector, for example, with the use of minimum revenue guarantees.

Risks with inflation and foreign exchange are usually allocated to the public sector. Generally, countries with high levels of inflation or volatile exchange rates present a challenge for PPP projects. In the absence of strong local currency markets, revenues are often in local currency while debt is foreign currency denominated. In those instances, high inflation or currency volatility can reduce the concessionaire's ability to service its debt. In addition, some important pieces of equipment, such as railway locomotives or cranes for a port project, are imported and priced in foreign currency. In the region, the delays observed during procurement can increase the construction costs arising from inflation and currency depreciation. Given the lack of control of the concessionaire over these risks, they are usually born by the public sector. It means that tariffs are adjusted by inflation and/or currency devaluation and that the concessionaire may request an increased contribution from Government (capital or subsidies).

3.8 Transparent and competitive procurement

Procurement in the ECA region can be characterized by limited competition. While the urgent need to rehabilitate transport infrastructure in the 1990s could explain the initial trend of uncompetitive procurement, the pattern still continues. Serbia's first experience in transport PPP did not involve competitive bidding for the 70 km long Belgrade-Novi Sad semi-motorway section. In 2003, Bulgaria awarded the concession for financing, rehabilitation, construction, tolling and operation of the Trkia Motorway Project without competitive procurement. Although Croatia started in 1991 with an international tender for its Istrain Y Motorway Project, it finally decided to directly negotiate with a contractor. The Zagreb-Gorican (A4) Motorway Project was also directly negotiated, with a contract signed in 1998. These projects proved unsuccessful as documented in Box 5 below.

⁴⁶ Parking policy encouraging the use of public transport, tariff policy for a toll road, development of a competing seaport or airport

Box 3-5: Lack of Competitive and Transparent Procurement as Cause for Project Failure

These are examples of projects that were procured without competitive bidding, facing issues during negotiations or after financial close. They illustrate how uncompetitive or non-transparent procurement process can incite public opposition to a PPP project, result in poor performance by the concessionaire, and increase the price ultimately paid by Government.

Trakia Motorway Project (Bulgaria): The Bulgarian Government awarded a concession in 2004 without competitive bidding for financing, rehabilitation, construction, tolling and operating the Kalotina-Sofia Ring Road-Orizovo-Stara Zagora-Nova Zagora-Yambol-Karnobat-Burgas (A1) motorway. The opposition parties attacked the project for a lack of transparency, large government contribution and high construction cost. The project attracted the attention of Transparency International Bulgaria, which approached the Bulgarian Commission on Protection of Competition. The concessionaire asked to increase construction costs due to legal obstacles causing substantial delays. It also did not want to assume the risk of lower-than-expected traffic. As a result, the talks with the concessionaire collapsed in November 2006 and the financial close is yet to be achieved.

Belgrade-Novı Sad semi-motorway (Serbia): In 2000, the Government signed a concession contract without competitive procurement for the operation and toll collection of the 70.4 km semi-motorway section of the Belgrade-Novı Sad route, promising to construct the second carriageway within 23 months from the signature of contract. Earthworks started slowly with poor execution and only 10-15 percent of the originally planned contract was terminated in July 2002. After the change of government, the concession contract was terminated in July 2002, without compensation to the concessionaire who had failed to comply with its duties and obligations. However, toll revenue collected by the concessionaire during these two years was not recovered.

Zagreb-Gorican Motorway (Croatia): In the late 1990s, the Croatian Government negotiated a concession agreement directly with the Italian company Astaldi. The project consisted of a 97 km motorway (A4) from Zagreb to Gorican (Hungarian border) as part of the V. Pan-European Transport Corridor linking Central and Eastern Europe and the Croatian seaports on the Adriatic coast. The procurement was non-transparent with limited competition. A 32-year BROT (build-rehabilitate-operate-transfer) concession was granted to an Italian constructor (Astaldi SpA) led consortium. Based on this agreement, a mixed concession company (with 49% Government shares and 51 percent Astaldi) Transeuropska Autocesta was founded, a 32-year concession was granted to it and a concession agreement was signed in August 1998. The ownership of the concessionaire was split, with the private sector holding 51 percent of the shares and the Croatian government the remainder. Total project costs were estimated at \$ 460 million. The company committed temporary financing to the project in 1998, and intended to close the final financing plan. The concession agreement called for limited-recourse refinancing, but the concessionaire was unable to achieve financial closure. The Italian partner Astaldi withdrew as a concessionaire and the main builder of the motorway in December 1999. When renegotiations of the project agreements collapsed, the company Transeuropska Autocesta asked for international arbitration in order to protect the project in the interest of all participants, claiming around € 40 million. The financing and construction of the motorway was taken over by state-owned? Croatian Motorways Ltd. and fully completed in 2003. At present, Croatian Motorways Ltd. also operates the motorway.

Source: Timar (2007)

Several projects suffered considerable delays caused by extensive procurement negotiations. Delays were typically caused by limited competition, which put the private party in a strong negotiating position, and insufficient due diligence and project preparation by the public sector. Sometimes project scope was changed during negotiations or new required legislation or regulations were introduced. These delays were frequent in Poland (taking up to 7 years between granting of the concession and signature of the agreement-See Box 6 below).

Box 3-6: Delays in Procurement of PPP Projects in Poland - A1 Toll Motorway Project

In August 1997, Gdansk Transport Company obtained the concession to finance, build and operate a section of the Autostrada A1 from Gdansk to Torun. The Concession Agreement was not signed as expected in April 1998 because of missing piece of required legislation. In September 1998, the Economic Committee of the Council of Ministers recognized that a legal framework for PPP was needed and that the Toll Motorway Act had to be amended. The Gdansk Transport Company was requested to submit a proposal for renegotiation of the Agreement and in September 2000 the Term Sheet was signed. The Polish Government requested another round of negotiations, in which frequent changes were made. Subsequent amendment to the legislation delayed the process. Following additional negotiations in August 2002, the Concession Agreement and its Schedules were initiated on the assumption that it would be signed after passing the Vignette Parliamentary Act. However, the Lower Chamber did not adapt the Motorway Act until November 2003, which was followed by another round of negotiations.

The Concession Agreement was signed in August 2004, seven years after the beginning of negotiations. The specifications of the project were significantly changed and the construction of the A1 section was divided into 2 phases, after being initially planned as a single stage project.

Source: Timar (2007)

Uncompetitive procurement practices reduced VfM from projects. Competition contributes to VfM by encouraging the private sector to reduce costs and offer the best solution. The complexity of PPP projects makes it difficult to have competition during operation (“competition in the market”). This is because a competing road or transport service will reduce revenue for the operator, especially if the alternative is less costly while the users’ willingness to pay is low. The alternative way to add competition is during procurement (“competition for the market”) by having a competitive bidding process, possibly including international firms. In ECA countries with limited competitive procurement, the associated delays increased the cost of reaching financial close for the concessionaire. These extra costs had to be repaid through user fees and government support.

Uncompetitive and non-transparent procurement also contributed to public resistance and renegotiations. The example of Bulgaria Trakia Motorway Project (described in Box 5) illustrates the negative impact on a project arising from public perception of lack of transparency in direct negotiations. After a change in Government, contracts are often renegotiated for claims of non-transparent procurement or excessive price paid by Government or users. This happens especially when direct negotiations are combined without a feasibility study or financial analysis justifying a given tariff or public contribution. This harms the Government and the public in later years as future bidders ask for a higher return (and subsequently tariffs and/or public support) to compensate the higher risk of contract renegotiation after a few years.

Unsolicited proposals were made to justify direct negotiations. In the region, a number of large projects were initiated either by the Government using sole source methods, or through unsolicited proposals by private sector developers. Firms making unsolicited proposals often demanded direct negotiations to guarantee the confidentiality of proprietary technology. In practice, such argument for confidentiality is undermined by the availability of substitutes and equivalent technologies. Although some unsolicited proposals for PPP can be successfully implemented, some of them cause great controversy. The problem lies more in the absence of competition than in allowing unsolicited proposals.

Unsolicited proposals can deliver VfM in conditions of extensive due diligence and competitive bidding. Project shareholders require a return on investment aligned with project risk. The socio-economic benefits of the project are typically not considered despite the Government preferring a project with high benefits. However, it is often tempting to sacrifice due diligence for speedier construction of infrastructure. Contingent liabilities increase for the Government when the level of required minimum revenue guarantees is underestimated. Finally, direct negotiations, often associated with unsolicited proposals, prevent Government from comparing proposals to determine

the appropriate tariff and Government contribution. Box 7 below illustrates international approaches for managing unsolicited proposals.

Box 3-7: International Approaches to Competitive Procurement of Unsolicited Proposals

No international standard exists for managing unsolicited PPP proposals. Some Governments have disallowed them altogether. The best approach, when allowing them, is for the government to have a clear rationale for unsolicited proposals with publicly available procedures for their management. To manage unsolicited proposals, Governments typically use systems commonly referred to as the “bonus system”, the “Swiss challenge system”, and the “best and final offer system”.

Bonus System: To promote unsolicited proposals, the Governments of Chile and Korea use a system that awards a bonus to the original project proponent during a formalized bidding procedure. This bonus can take many forms, but typically it is a theoretical amount added to the original proponent’s technical or financial bid.

Swiss Challenge System: This procedure – best-known in the Philippines, and also used in India, Italy, Taiwan, and the US territory of Guam- is similar to the bonus system in allowing a third party to bid on the project during a designated time. Instead of providing a pre-determined advantage, however, the original proponent has the right to counter any superior offers.

Best and Final Offer System: This variation of the Bonus and Swiss Challenge system includes multiple rounds of tendering, in which the original proponent is given the advantage of automatically participating in the final round. South Africa uses this approach. Argentina’s approach contains elements of a bonus (approximately 5%) and the Swiss challenge system.

Source: J.T. Hodges and G. Dellacha (2007)

3.9 Public sector support for PPP projects

PPP projects benefit from active government support and public acceptance. This is extremely important in the ECA region where a change in government during the concession period (typically 20-30 years) can have a great impact on on-going projects. Given the importance of political and public acceptance, all processes should be transparent and consultative. The public acceptance of toll rates can be tested through willingness-to-pay studies. If procurement is carried out in a transparent and competitive manner, the risk of public backlash is minimized when changes occur in government.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This report has looked at the experience in the ECA region over the last 15 years. Although some lessons are common to many regions in the world, several are primarily relevant to this region. The current economic crisis is also changing the short-term role of PPP in ECA, especially in CEE/SEE, with liquidity shortage and slower growth. Projects are not yet cancelled but an increasing number are delayed or at the risk of being delayed if financing is not put in place shortly. At the same time, as Governments are also facing declining revenues, replacing budget tax revenues with deficit spending to provide fiscal stimulus is not feasible.

While the results in the region have so far been mixed, the experience shows that there is potential for improvement. Poor feasibility studies (e.g. unreliable traffic forecasts) and limited competition often resulted in financially unsustainable projects. These failures might have been avoided with better project preparation. There is also potential in the region to improve the VfM from PPP. Even when financial close was reached, non-competitive procurement practices and absence of consistent public policy contributed to delays in procurement and extensive renegotiations. Finally, the complexity and long time involved⁴⁷ in a PPP taught countries to be flexible in their approach, learn from experience, and use high quality advisers.

The recommendations to develop a good PPP program include not only strong project design, but also require open and competitive procurement and a strengthened legal and institutional framework. The overall framework, including good macroeconomic performance and stable public finances make a PPP easier, while a strong institutional, policy and legal framework reduce the overall transaction costs. Mature local capital markets help reduce financial risks by allowing long-term local currency borrowing. Well-designed projects come with a solid feasibility study (professionally prepared with conservative traffic forecasts) and a well-drafted PPP contract with an optimal risk allocation. This requires the use of highly qualified international PPP experts (financial, legal and technical) to support the project preparation team until financial close. Given the costs and time needed for successful PPP development, sufficient resources with a realistic timetable should also be made available.

The decision between using a PPP or public procurement in a project is critical. Ironically, governments with weaker public finances and limited fiscal space⁴⁸ may be especially attracted to PPPs. Experience in ECA countries has shown that most of the time PPP projects require public sector financial contribution and guarantees that have to be accounted for. The level of required Government support, if any, will ultimately impact the budget. A two-stage process, while not perfect, is recommended as a reasonable approach. The government could first undertake cost-benefit analysis without considering the choice between public investment and a PPP. Then an appraisal determines whether the level of public contribution to the specific PPP is justified by the additional social benefits that would not be realized by a purely government financed project.

4.2 Countries with extensive experience IN PPP

For countries with more PPP experience, the main focus should be on value for money. Hungary, Poland, Croatia, Bulgaria and Czech Republic stand out in the ECA region with the number and value of implemented transport PPP projects. They have already established the core components of required PPP legislation and some institutional mechanisms, such as a PPP unit, to initiate and

⁴⁷ Concession contracts are often awarded for 30 years while a few years are needed for project preparation from concept to financial close.

⁴⁸ Fiscal space can be described as the ability of the government to take on new borrowing to support its expenditure choices, after consideration of its current income, current expenditures, and existing debts.

oversee projects on the Government side. Their EU membership⁴⁹ testifies to relatively developed governance structures while their investment-grade credit ratings signal emerging financial strength. Based on the case studies, it is clear that meaningful VfM analyses were typically not conducted in these countries. Without such analyses, it is difficult to tell whether the implemented PPP projects actually delivered high quality transport infrastructure or services at a lower risk-adjusted cost compared to traditional public procurement. In fact, some signs suggest that the governments overpaid the private sector for the projects. If feasibility studies had been carried out and if competitive bidding had been in place, the negotiations on risk allocation and required public support would have been more informed and competitive, resulting in better value for the Government.

The mere implementation of a PPP project does not mean that it was the best use of public money. Going forward, the countries with more experience should rethink their approach towards PPPs. They should focus less on implementing their proposed projects at any cost and more on delivering value for the taxpayer. These countries should also rely more on competitive practices in the bidding process. Engaging in direct negotiations with a single bidder should be avoided as much as possible. If project characteristics are too unattractive to attract wider interest from the private sector, the offered PPP structure should be reconsidered, or abandoned in favor of public procurement. It would be useful to consult the potential private sector bidders during the tender preparation stage to ensure that the project is “bankable” offering attractive returns to investors and lenders. The key recommendation for countries that already have the basic public sector capacity is to better harness the private sector for cost efficiency and service quality.

Appropriate risk allocation can greatly enhance the value for money. More experienced countries should also carefully consider how they allocate risks in PPPs. A critical risk is that of traffic demand, which in cases of initial overestimations frequently lead to project renegotiation or requests for further public support. This risk should be assumed by the public sector unless the private sector can control or heavily influence it. As a rule, any risk inherent in PPPs should be allocated to the party best able to manage it. For example, construction and operating risk should be assigned to the private party building and operating the service. By contrast, regulatory and macroeconomic risks are better managed by the public side. Whatever will be the final risk allocation should be firmly based on analysis of the legal and financial implication of each risk and whether they can be best managed by the assigned party.

4.3 Countries with moderate experience in PPP

Countries with limited experience in PPPs should strengthen public sector capacity to successfully prepare and implement projects. Whereas countries with more experience from PPPs should better leverage the private sector, countries such as Albania, Estonia, Latvia, the Slovak Republic and Romania should first improve government institutions and practices to strengthen the public sector foundation for PPPs. Compared to the countries with more PPP experience, the hitherto low levels of transport PPP investment in these countries could be seen as a combination of an inadequate PPP framework, a higher country risk perception and sometimes limited support for PPP. The basic framework could be improved by ensuring that basic PPP legislation exists and that Government ministries have the knowledge and resources to launch a PPP, for example through a PPP unit, although this still requires strengthening the line Ministry. The country risk perception could be mitigated by improving public finance practices and reinforcing legal protections for private contracts and creditor claims. Limited support for PPP is often triggered by suspicion about the private sector or failures of PPP projects. Given its long-term nature, it is unlikely that a PPP project would be able to overcome obstacles without strong political backing. This backing can be made stronger after the feasibility stage, when it has been demonstrated that the PPP project will bring value to Government and users.

⁴⁹ With the exception of Croatia, which is still undergoing accession negotiations with the EU

On the project level, countries with limited experience should focus on the design and preparation stage. If the overall public sector framework is deemed conducive to initiating and managing PPPs, the next step would be to ensure careful project preparation. The process should always start with conducting a solid feasibility study on the technical, economic and financial merits of the proposed project. Feasibility studies were too often neglected in the sampled countries in the rush to project closure. A solid feasibility study done upfront can save considerable time, effort and resources as the project moves ahead by supplying the public sector with useful facts and recommendations for negotiations with the private sector. Without feasibility studies, there is little guarantee that public resources will be efficiently allocated among competing uses and that a PPP structure for a project brings better value than public procurement. Moreover, the feasibility study can identify potential issues likely to face the project and address them before procurement and operations. Competitiveness of procurement is another key consideration during project preparation. Most PPP projects do not face competition, and procurement is often the only time when it can take place and reduce the cost for Government and users. Competition among private sector companies is also the best way to ensure that the private sector does not get the upper hand in negotiations.

4.4 Countries with limited experience in PPP

Countries that had little transport PPP investment during the survey period would benefit from incorporating PPP into a broader set of reforms. This group mostly consists of countries that were part of former Yugoslavia, such as Bosnia-Herzegovina, Kosovo, FYR Macedonia, Montenegro, Serbia and Slovenia. Lithuania is included in this group as it also did not have any transport PPP investment. Croatia, as mentioned above, is the only country that was formerly part of Yugoslavia but that already has considerable experience from transport PPPs. The countries with limited PPP experience are still reforming their public sector institutions towards EU standards. However, these countries also have a unique opportunity to include the prospect of PPPs in their public sector reform planning. Incorporating a PPP project into a broader set of reform will also reduce the perceived risks, as it will show that the policies with a strong impact on a potential project are being well thought by Government. The modernization of the legal code for public finances and commercial transactions should also consider the legal requirements for a PPP.

A consistent PPP policy should also be introduced in these countries. The strategic plan for infrastructure development should present PPP as a potential financing and operating structure. With a strategic commitment to PPPs, a consistent policy framework can be formulated. Long-term institutional and policy planning for PPPs will ensure that necessary institutions are in place when these countries are ready to launch their first transport projects with private participation. Ad hoc reforms at a later stage, or worse, during PPP negotiations, can cause serious project delays and undermine the Government's reliability as a counter-party to the private sector.

Finally, for countries with limited history of transport PPP projects, risk mitigation may be necessary to attract private sector interest. Given that most of the countries of the former Yugoslavia have a non-investment grade credit rating⁵⁰, they are still considered as highly risky locations for investment. Many investors shun non-investment grade political environments unless the prevailing country risks are mitigated. International Financial Institutions can help in this regard through their risk guarantee and political risk insurance mechanisms. Alternatively, the government may have to provide considerable subsidies during the preparation and implementation of a PPP project to entice private sector involvement.

⁵⁰ See the credit rating table on page 24 of this report.

4.5 Implication of the crisis for ECA countries

In the short term, while the international economic situation may reduce the potential for PPP, VfM can still be achieved by involving the private sector. Countries with PPP projects at a very advanced stage of procurement should carefully consider the financing options available and balance them with the fiscal implications. These PPP projects would probably need additional public support during construction and operation as the private sector may not be able to raise long-term debt in a local currency. Demand for some services may also slow down in the short term. Projects most likely to reach financial close are those generating revenue in a foreign currency (such as ports or airports) and/or requiring limited investment in order to reduce the amount of debt (favoring smaller projects or rehabilitation over new construction). Phasing and down-scaling will make it easier for the market to absorb some projects. The private sector can also bring value even if private financing is limited. Examples include a management contract to reduce operating costs of an airport, or incorporating the rehabilitation and maintenance of a highway under a publicly funded performance-based contract. Finally, contracts should be prepared to allow the government to capture the benefits from the economic upturn, especially if additional support is given to the private sector.

Countries in the CEE/SEE region should also take advantage of the crisis environment to better prepare projects and strengthen the overall PPP framework. During previous economic downturns, PPP investment did not stop even though the private sector became more risk averse with a reallocation of capital to more stable locations (“flight to quality”). The overall framework (incl. sound macroeconomic policies) will play a critical role in reducing the country risk perception. Projects that are prematurely launched - without a good feasibility study, outside the policy framework and without a realistic timetable - will be unlikely to attract private financing, or will do that only at a high cost to the Government. It is strongly recommended that countries in the ECA region uses the time “available” to develop a viable and sustainable PPP program and improve the overall investment climate for private participation in infrastructure.

ANNEX A: CASE STUDIES

Case Study 1: Istrian Epsilon Toll Motorway Project, CROATIA

Project/Location/Country	Istrian Y Project, Istrian Peninsula, Croatia
Value/Cost of the Project	Phase 1A: € 136 million; Phase 1B: € 270 million; Phase 2 € 300 million (est.)
Rationale/objectives of the PPP scheme	Financing, building, and operating 145 km of dual carriageway toll roads
PPP Procurement/Main Dates	First, open tendering with little interest from bidders; later direct negotiations with single bidder 1994-1995
PPP Partners/Actors	Ministry of Sea, Tourism, Transport and Development; Bina Istra Concession Co: Bouygues (F, 51%), Hrvatske Autoceste (CRO, 44%), INA Oil Co. (CRO, 3%), Istarska Autoceste (CRO, 2%); Bina Istra O&M (Operator)
Advisors involved	n.a.
Local Companies/Banks	UBS, Coface
PPP/Concession Period	32 years
Financial Structure	Phase 1A 85%/15% debt / equity ratio Phase 1B 65%/15%/20% debt / equity /public capital Government pays a monthly Financial Contribution (approx. € 15 million/year)
EU support	none
IFI Co-financing	none
Agreement between Parties	Concession Contract (signed September 25, 1995)
Agreements of Private Party	Contracts with local subcontractors
Risk Allocation	Construction risk is born by the private sector, commercial/traffic risk is shared
Institutional/Managerial Structure	Operator is separated from, but fully owned by concession company
Users Contribution/Tariff setting	Tolls collected in an open system; rates set by government
Government support	Replenishing Debt Service Reserve Account Government support calculated based on the difference between annual costs and planned project revenues, not traffic volume
Implementation/Construction	Phase 1A completed in 1999 Phase 1B completed in 2006 Phase 2 planned 2008-2010
Strengths	<ul style="list-style-type: none"> • In-kind public capital contribution and financial support mechanism made the project financially viable • Concessionaire successfully carried out first refinancing, thus reducing debt burden • Concessionaire provides subscription scheme (reduced rates) to frequent users and tries to improve its public image • Public authorities are on the learning curve to improve their position during possible re-negotiations
Weaknesses	<ul style="list-style-type: none"> • Lack of competitive procurement prevented IFIs from participating in structuring and co-financing the project; it also caused unnecessary delays and cost increases • Current form of government contribution provides little incentive for the concessionaire to provide services in the most cost effective manner.

Background

The Bina-Istra scheme was the first project planned under the country's concession program (in 1992). The scheme was originally planned to be publicly procured, but because of limited interest from prospective bidders, it was decided that the deal would be negotiated directly with French contractor Bouygues Travaux Publics SA.

Project description

The scheme is a 145km long Y-shaped motorway (Umag-Pula: 80 km, and Kanfanar-Matulji: 65km) in the Istrian peninsula, whose prosperous economy relies heavily on tourism and trade. The peninsula's road network can only be accessed through the Učka Tunnel. The project consists of financing, building and operating the 145 km long network and collecting tolls.

The project phases are:

- Phase 1A – from Rogovici to Vodnjan, and Kanfanar-Medaki as single carriageway motorway;
- Phase 1B1 – from Medaki to Nova Vas as single carriageway motorway;
- Phase 1B2 – from Nova Vas to Umag (at the Slovenian border), as single carriageway motorway;
- Phase 1B3 - from north of Vodnjan to east of Pula as a dual carriageway;
- Phase 2 – Dual carriageway expansion of the motorway on the achievement of specified traffic flows.

PPP Features

The 32-year contract for Phase 1A was awarded to the Bina Istra concession company in September 1995. As a BOT type concession, the infrastructure will be returned to the Grantor for free at the end of the concession period. The shareholders of Bina Istra with their respective stakes are: Bouygues, France (51%), Hrvatske Autoceste Croatia (HAC) (44%), INA Oil Company d.d., Croatia (3%) and Istarska Autocesta d.d, Croatia (2%) Financial closing of Phase 1A was reached in 1997, with a consortium of Banks, including UBS and Coface which both provided 10-year term debt financing. Due to the lack of competitive procurement, the IFIs rejected the idea of co-financing. Total construction costs for the semi-motorway amounted to € 136 million, with € 116 million in the form of loans and € 20 million as project equity, provided by Bouygues Travaux Publiques SA, France. An existing 54 kilometer section, including the Učka Tunnel and its toll collection equipment (needed to be rehabilitated) were returned to the concessionaire as an in-kind contribution of the government.

Revenues were to be generated from tolls. The grantor set the tolls while the financial balance was set to be under a subsidy/profit sharing mechanism. The original intention was to operate the motorway as a closed toll collection system, like the rest of the Croatian motorway network. However, there was public resistance to the proposal to apply the national rate given that only one carriageway was to be built initially, with a single lane in each direction, and no hard shoulder. It was therefore agreed that a reduced toll rate would apply, and the system would be open with one toll station at the Učka Tunnel (which already had a 20-year tolling history at that time). A new toll station at Mirna viaduct was to be installed under Phase 1B.

The Croatian Government pays a monthly Financial Contribution (FC), administered through an annually replenishing Debt Service Return Account. The FC is determined by calculating the difference between the project's annual costs and the forecast tolling revenues in the following years. Unlike a shadow toll, the payment is not subject to traffic volume (the observed average yearly traffic growth rate is around 7 percent). The FC, after deducting all projected toll revenues, is meant to cover all of the consortium's operating and maintenance costs, debt service requirements and a guaranteed fixed return for the equity

investors. In theory, the Government can freely increase the level of tolls to reduce its Financial Contribution, but in practice, significant variations in toll levels are unlikely to be accepted by the public as the tariff structures adopted elsewhere in Croatia are fairly rigid and inflexible.

Under the Concession Agreement, the Government is responsible for land acquisition, utility diversions and for obtaining the location permit. The Government also assumes third party risks such as force majeure, changes in legislation and any changes to the agreed scope of works instructed by it or third parties. Changes to the agreed scope of work could include resolution of the route of the northern connection for Phase 1B. The Government is responsible for the discovery of archaeological remains and latent defects in existing structures, except for the Učka Tunnel, for which the risk is transferred to the Concessionaire. As mentioned above, the Government generally bears the traffic risk on the project.

The Concessionaire is responsible for developing the design, carrying out the construction works and managing all operation and maintenance activities, including toll collection. In practice, the Concessionaire has transferred the majority of its design and construction risks to its Contractor under a construction contract and most of its O&M risks through to its Operator under a separate operations contract. The Concessionaire holds most of the construction risk, including that for pricing, quantities and performance. It is also liable for liquidated damages in the event of contract over-run due to risks it holds. The Concessionaire is responsible for obtaining the permits for construction and use. The Concessionaire generally retains the risk of unforeseen ground conditions such as contaminated land, which is usual for PPP Contracts. The Mirna Viaduct of Phase 1B was a special case, and the Government chose to retain the risk of unforeseen ground conditions. It will pay for additional costs for construction works such as additional piling, above the cap of € 13 million. The Concessionaire is responsible for the risk of latent defects in road formation.

An Independent Engineer was appointed to monitor the construction phase on behalf of the Grantor and the Concessionaire. The Engineer was to monitor the works and review and report on the construction contractor's proposed organization, program, budget and risk management plan.

Experience to Date

After lengthy negotiations, a Memorandum of Understanding on Phase 1B was signed in 2002. Bina Istra company and its financial advisers successfully reached financial closing related to refinancing Phase 1A (releasing securities worth € 30 million and reducing the interest rate of the concessionaire's debt from 12% to 8%) and financing Phase 1B. Construction of Phase 1B started in 2003.

Phase 1B was launched with private financing of € 270 million, including a combined loan of € 60 million and a project bond of € 210 million with 20-year period of maturity (a novelty in Croatia). This was the first project bond issue of its kind not only in Croatia but also in the CEE/SEE region. The dual listing on the Zagreb and Luxembourg stock exchanges was also new for a Croatian issue. Phase 1B was completed and became operational in 2006. Toll collection started at a second toll station built at Mirna Viaduct. Bina Istra spends € 7 million per year in the operation and maintenance of the network. The tourism, trade and industry of the region have significantly benefited from the improved transport conditions.

The modular nature of the projects enabled the concessionaire to benefit from improving market conditions. The good track record of the project as well as a better perception of Croatia by the financial markets brought a new round of refinancing closer. Negotiations are currently under way between the partners to refinance the outstanding debt (the target is to obtain interest rate within a range of 5.0-5.5%) and reach financial closure in preparation for the start of Phase 2 construction works.

Phase 2 of the concession will involve dualling of the motorway, i.e. widening from single to dual carriageway standard, and transform the current open toll collection system into a closed one (allowing to levy tolls proportional to distance travelled), when the average annual daily traffic reaches 10,000 vehicles per day (during a one year period) or when the average daily traffic reaches 16,000 vehicles per day (during the two month summer period). Average Annual Daily Traffic on Phase 1A in 2000 was approximately 5,000 vehicles per day at the Učka Tunnel. In 2006 the AADT traffic on the motorway was approximately 8,500 vehicles per day in the tunnel, with a summer peak of around 17,000 vehicles per day. According to the latest traffic figures and updated forecasts, an additional lane will be required by 2007-2008 and the full motorway will be implemented by 2014.

Lessons Learned

- Tolling is successful due to high traffic from tourism as well as established and accepted direct tolling system;
- Sovereign borrowing for motorway development may not be the most efficient use of fiscal space if other alternative is available. However, a value for money (VfM) assessment is necessary to avoid excessive government contributions and inappropriate share of risks that leaves the private sector with an unfair advantage.
- A segmented approach toward motorway financing and innovative forms of government support can raise private finance significantly.

Case Study 2: Zagreb-Macelj Toll Motorway Project, CROATIA

Project/Location/Country	Autoceste Zagreb-Macelj (AZM), Croatia
Value/Cost of the Project	€ 360 million
Rationale/objectives of the PPP scheme	Rehabilitation and widening of a 40 km existing road and construction of a 20 km section of a toll motorway from Zagreb to Macelj on the Slovenian border
PPP Procurement/Main Dates	Direct negotiations with a single bidder 1996-2003
PPP Partners/Actors	Autocesta Zagreb-Macelj Llc (AZM) - a JV formed by Walter Concession Holding GmbH (51%), Republic of Croatia (49%). WCH is owned two-thirds by Walter Bau and one-third by Strabag.
Advisors of the Public Partner	Fortis Savjetovanje d.o. (financial); Allen & Overy Hanzekovic, Radakovic and Partners (legal)
Local Companies/Banks	
PPP/Concession Period	28 years
Financial Structure	Shareholder equity Export credit facility Commercial and mezzanine facilities
EU support	none
IFI Co-financing	none
Agreement between Parties	Concession agreement
Agreements of Private Party	O&M contract with Trans-Ceste
Risk Allocation	
Institutional/Managerial Structure	Operator Trans-Ceste Llc. owned by EGIS Transroute International (100%)
Users Contribution/Tariff setting	Semi-closed toll collection system; rates set by government
Implementation/Construction	2004-2007
Strengths	In-kind public capital contribution and financial contribution made the project financially viable. Innovative financial package successfully combined toll revenues for operation of an existing road, uncovered senior debt, Hermes guaranteed export credit tranche, mezzanine tranche insured by the German Govt and shareholder funds. Construction completed within budget and on schedule
Weaknesses	The lack of competitive procurement prevented IFIs from participating in structuring and co-financing the project, causing unnecessary delays and cost increases. There has been no financial analysis undertaken on the project, making it challenging to negotiate a best value package.

Background

The route leading from the Croatian capital city Zagreb to the Slovenian border is of strategic importance to Croatia. It is intended to solve congestion in the vital Pyhrn Corridor, part of the Trans-European Network (TEN) linking Western and South Eastern Europe, leading from Austria, through the Alps, Slovenia, Croatia and Serbia, then on to Turkey and Iran.

Project description

The concession contract awarded in 2004 involves the rehabilitation and widening of an already existing 40km stretch connecting to the Zagreb ring road and the construction of 20 km of new road through the mountains to the Slovenian border. That mountain section includes 4.7 km of tunnels resulting in a significant cost for the limited length of the new route to be constructed. Part of the new route is single carriageway, with the option to widen it to dual carriageway if justified by the traffic volume. A number of other elements will be added along the route including tunnel ventilation, service areas, CCTV, toll areas and signage.

The project was implemented in the following construction phases:

Phase 1:

- Section A: Widening of the existing motorway (Jankomir-Zapresic, around 7,5 km) from 2 to 4 lanes. Extension of the emergency call system and the traffic-control systems.
- Section B: Taking over of the existing 4-lane section from Zapresic to Krapina (around 34 km). Taking over of the existing toll station in Zapresic and construction of 2 new toll-booths, implementing closed toll collection.
- Section C1: Construction of a 1.4 km long 4-lane section on the outskirts of Krapina and construction of a toll station, implementing closed toll collection.

Phase 2:

- Section C2 and C3: New construction of a 4-lane motorway from Krapina to Macelj over a length of 18 km, with the exception of a 3.75 km section which has to be executed as a 2-lane semi-motorway. Construction of various tunnels and viaducts. Construction of 3 toll stations, implementing closed toll collection.

PPP features

There was no open bidding competition for the Zagreb-Macelj Motorway project, with Walter Concession Holding GmbH (WCH) acquiring a 51% ownership in the concession company (Autoceste Zagreb-Macelj doo, registered in 2003 with a share capital of 20,000 HRK or € 2,700) wholly-owned by the state when the concession was awarded. WCH is, in turn, owned two-thirds by Walter Bau AG, and one-third by Strabag International. The public party retained the remaining 49% ownership of the concession company, while the share capital was increased to HRK 41,000 or € 5,600 according to a shareholder decision dated July 11, 2003. Autocesta Zagreb-Macelj d.o.o. (AZM Llc.) was founded in 16 April 2003, aiming to operate the existing section of motorway A2 from Zagreb to Velika Ves near Krapina and to construct the northern motorway section from Krapina to Macelj at the Slovenian border as a concessionaire.

During concession negotiations, the Croatian Ministry of Sea, Tourism, Transport and Trade was supported by advisors: Fortis Savjetovanje (financial) and Allen & Overy as well as Hanzekovic, Radakovic and Partners (legal matters). Freshfields Bruckhaus Deringer (legal) and Bank Gesellschaft Berlin AG (financial) advised Walter Bau and its special purpose affiliate Walter Concession Holding GmbH on the project.

The concessionaire achieved financial closure for the € 360 million project in July 2004, after eight years of negotiation. The concession is under a BOT model with infrastructure handed over to the Grantor for free at the end of the concession period.

The concession period, during which the joint venture will operate and maintain the road, is 28 years, starting from July 28, 2004 (date of first drawdown, when the concession contract signed five days earlier became effective). In 2005, with some status changes arising from the insolvency declarations of Walter Bau AG (D), the company Walter Concession Holding changed its name to Pyhrn Concession Holding, while Walter Motorway GmbH changed to Pyhrn Motorway GmbH.

In addition to debt, both shareholders were to provide funds in the form of subscription monies for ordinary and preferred share capital of the borrower AZM. € 32 million ordinary share capital was provided 51% by Walter Concession Holding and 49% by Republic of Croatia. In addition, preferred share capital was provided by Republic of Croatia in 3 installments totaling € 23.5 million and by Walter Concession Holding in 6 installments, totaling € 4.5 million. RoC will contribute a further € 4.5m during the 4.5 year period following the start of operations, which will be treated as a subordinated loan. In line with subsequent decisions of the shareholders, the share capital of AZM concession company was increased up to HRK 444.8 million (about € 60 million) by 29 December 2006.

The project was financed through a combination of Hermes export credit facility (€ 100 million, with a 15-year tenure), an uncovered commercial facility that included a working capital facility (€ 112 million with a 16-year tenure), and a mezzanine facility insured by the German Government (€ 100million with a 17-year tenure). The financing was intended to benefit as much as possible from protection provided by the Federal Government of Germany. The Hermes Facility provided for a 95% commercial and political risk cover, whilst the mezzanine facility provided for a 95% political risk cover.

The mandated lead arrangers were Kreditanstalt für Wiederaufbau, Bayerische Hypo-Und Vereinsbank, Bank Austria Creditanstalt and HSH Nordbank, being advised by Clifford Chance and Croatian law firm Bogdanovic, Dolicki & Partneri.

The public party supports the project in the event that projected traffic volumes are not achieved or if actual operating and financing costs are higher than forecast. The level of support is tailored for the construction and operation phases. The tolls were set in the concession agreement and a Traffic shortfall contribution agreement was also signed. During construction, the Republic of Croatia was obliged to supplement revenues if traffic volumes on the existing route fell below the guaranteed level. During operations, the Republic of Croatia is obliged to supplement project revenues if traffic volumes fall below the level that is required to generate sufficient revenues to meet defined debt service obligations (including debt service reserve and maintenance reserve account funding requirements), or if operation and maintenance costs rise above specified levels. The Government (Grantor) retained the responsibility for making land available and arranging for utilities diversions and also assumed third party risks such as force majeure and changes in legislation.

A 15-year operation and maintenance contract was awarded to Egis Project SA/Transroute International SA. The operator took over the existing route with its open toll collection system, and transformed it into a closed toll collection following construction completion. Both the construction and O&M agreements incorporated a stringent regime of penalties and liquidated damages to ensure that the international parties fulfill their contracts without additional costs to the concession company. Transfer of existing staff to the private sector operator was a significant issue during the negotiations, due to the operator's requirement for a significant number of staff redundancies.

The public party carried out most of the main design; and generally retained the risk of obtaining most of the construction permits and transferring the existing permit to use. The concession company could review and comment on the Grantor's design and was responsible

for developing a detailed design. The Government was also responsible for any errors in the geotechnical survey information it provided and any latent defects discovered for the existing motorway.

Experience to date

This is one of the most innovative motorway deals to be done in the SEE region so far. It is a PPP with an innovative financing plan combining toll revenues for operation of an existing road, uncovered senior debt, a Hermes (Germany's export credit agency) export credit tranche, a mezzanine tranche insured by the German government and shareholder funds.

Transroute International succeeded in taking over, in a very short period, most of the existing staff (56 people previously employed by the Croatian road operator, a public entity called Hrvatske Autoceste - HAC). Transroute International established a new organization for this operation, Trans-Ceste Llc, with a new management, and introduced cost-efficient methods and procedures. The role of the operating company Trans-Ceste includes toll collection, security and traffic management (in particular 24h/24 patrols along the motorway), and routine maintenance of the infrastructure and equipment.

In July 2004, AZM entered into a "turnkey" construction agreement with the German company Walter Motorway GmbH (today Phyrn Motorway GmbH), with a construction price of € 280 million and a 33 month construction period. The construction works were completed and the newly built Krapina-Macelj section (more than 18 km) was opened on schedule and within budget (€ 235 million allocated to Phase 2) on 29 May 2007. As December 31, 2006, AZM Llc had 11 employees.

The Government proposed that the tolls paid by I. and II. class vehicles between Zabok and Krapina be reduced by 56%. Accordingly, AZM entered into an agreement on this with the republic of Croatia on February 3, 2006. Under this agreement, AZM receives from the government the difference between the relevant toll rate payable for that section according to the Concession Agreement and the discounted toll charged for the same. The 56% reduced toll was extended to vehicle classes III. and IV. in October 2006. As of July 2007 toll prices were 10, 14, 22 and 43 Kuna⁵¹ for using the nearly 20 km long Krupina-Macelj section for categories of vehicles I (cars), II, III and IV (heavy goods vehicles), respectively.

Croatia's neighbor Slovenia hasnot developed the motorway section leading to the Croatian border close to Macelj. It is uncertain if Slovenia will connect their motorway network to the Zagreb-Macelj motorway in the near future. However, pressure may be exerted by the EU in due course to accelerate this connection. Failing to do so, the benefits to Croatia from this investment will be substantially reduced.

Lessons learned

- Despite the government's success in improving the deal, leading to substantial reduction of payments to the concession company, the state paid a premium for this project in comparison with equivalent international PPPs, taking into account the value and established revenue stream from the existing asset and the protections and guarantees on traffic flows provided by the government;
- The innovative financial package combined successfully toll revenues for operation of an existing road, uncovered senior debt, Hermes guaranteed export credit tranche, mezzanine tranche insured by the German Government and shareholder funds;
- The lack of appropriate preparatory studies (cost-benefit analysis, financial modeling, etc). and the direct negotiation elements prevented IFIs from participating in structuring and co-financing of the project, and also caused unnecessary delays and cost increases.

⁵¹ Exchange rates: USD/HRK=5.28 and EUR/HRK=7.05 in July 2007.

Case Study 3: Grandi Stazioni (Living Stations) Project, CZECH REPUBLIC

Project/Location/Country	Grandi Stazioni (Living Stations); Prague, Karlovy Vary, Mariánské Lázně; Czech Republic
Value/Cost of the Project	€ 31.3 million
Rationale/objectives of the PPP scheme	Refurbishment and management of three railway stations on a commercial basis. The investments and commercial strategy are aimed at turning these stations into profit centres by reconfiguring the layout, while ensuring continuous operation of the primary rail services
PPP Procurement/Main Dates	Open competitive tender, 2002
PPP Partners/Actors	Grandi Stazioni Ceska Republika Sro; Ceske Drahy (Czech National Railways)
Advisors	n.a.
Local Companies/Banks	n.a.
PPP/Concession Period	30 years
Financial Structure	70%/30% Debt / Equity ratio
EU support	none
IFI Co-financing	EBRD: € 3.8 million equity placement (40.5% of development company shares)
Agreement between Parties	Concession contract, December 2003
Agreements of Private Party	Commercial contracts with local subcontractors
Risk Allocation	Construction and commercial risk is borne by the private partner
Institutional/Managerial Structure	n.a.
Users Contribution/Tariff setting	n.a.
Implementation/Construction	2004-2010
Strengths	An example of the private sector investing in public services, thereby easing the burden on public finances Innovative approach through which a private company plans to transform the railway stations
Weaknesses	The refurbishment of well-defined areas within railway stations for commercial purposes has only secondary impact on the quality of real rail (transport) services. The weak demand forecast, complicated contracts and poor communication between interested actors may cause serious delays or jeopardize small size projects of similar type.

Background

Railway stations are the cathedrals of the industrial age. One of the most beautiful railway stations in continental Europe is located in Prague. Designed by the Czech architect Josef Fanta and built between 1901 and 1909 Praha Hlavní Nádraží, the Prague main railway station, is considered to be an outstanding example of Art Nouveau architecture. Nevertheless, over the years the railway station has become something of a 'problem child' for the local authorities, attracting homeless people and drug dealers.

Railway stations are not only used for arrivals and departures. About 80,000 people pass through Prague's main station each day. A railway station offers great retail opportunities. Airports have been organized around this shopping centre idea for many years, and now railway stations are adopting it. For instance, as ticket offices can beattract travelers, it may be appropriate to group other elements around them. Railway stations should be seen as service centers. In-depth analysis of traffic flows and commuters' behavior provides the basis for the refurbishment project, which goes much further than civil works.

The concept for revitalization of the three Czech railway stations goes far beyond refurbishing. The Czech government, owner of the national railways which in turn owns the stations, published an open tender for the refurbishment and operation of the three railway stations in 2002. Grandi Stazioni Ceska Republika, a special purpose development company won the contract which includes a 30-year license to operate the stations. All rail operations remain in the hands of Ceske Dráhy (Czech National Railways).

Research shows that in 2007 only two per cent of the local population came to the railway station, whereas in several European cities the corresponding figure is much higher, 10-20 per cent.

Project description

The project consists of the refurbishment and management of three railway stations, Prague Main, Karlovy Vary and Marianske Lazne, on a commercial basis. The investments and commercial strategy are aimed at turning the stations into profit centers by reconfiguring the layout, while ensuring continuous operation of the primary services of the stations. Grandi Stazioni wants to attract large retail companies to the Prague main railway station. They would like to have a bank, a pharmacy, food and beverage outlets and book shops. In contrast, the concept for the smaller railway stations in Karlovy Vary and Mariánské Lázně will be limited to basic supplies.

PPP Features

In 2003 the Italian development company Grandi Stazioni SpA won a long-term concession agreement following the open tender issued by Ceske Drahy, the Czech National Railways. Consequently, Grande Stazioni Ceska Republika Sro, a special purpose development company was established and registered in the Czech Republic, with around € 9.4 million of capital. The majority (51%) of the shares is owned by the private sector (Grandi Stazioni SpA, Italy 8,5% and EBRD 40,5), while 49% is in the hands of State owned České Dráhy (Czech National Railways).

The first phase of works at Prague Main Railway Station was completed in December 2006. The Italian companies Benetton and Autogrill announced that they would be opening commercial outlets. The commercial and construction risks on this project were borne by the private sector. The concession period for the project was 30 years.

Experience to Date

Following the success of the first deal, the state-run rail operator České drahy (ČD) launched an ambitious plan to revitalize dilapidated railway stations and their surrounding areas. By 2007, it seemed that there was no more private sector interest in similar schemes.

The only tangible progress in works was at the Prague Main Railway Station, (Hlavní Nádraží). It became obvious that these projects needed detailed studies and a long time for approving them. Complicated processes concerning preparation and specification of the contract caused serious delays and weakened private sector interest.

Developers are generally used to constructing a building and selling it. In the case of the Living Stations project, the developer does not sell the property but instead will use it himself or guarantee its use by someone else. Mutually advantageous symbiosis between typical commercial complexes and normal railway traffic is unknown and not yet experienced in the Czech Republic.

Lessons Learned

- Projects of this kind need detailed studies, with a long time for their approval, while complicated processes concerning preparation and specification, as well as approval of the contract caused serious delays and weakened private sector interest.
- Weak demand forecast, complicated contracts and bad communication between interested actors may cause serious delays or kill small size PPP projects of similar type
- The refurbishment of well defined areas within railway stations for commercial purposes with the involvement of the private sector had only a secondary impact on the quality of rail (transport) services.
- The private sector has not in many cases shown interest in long term rates of return for railway station infrastructure; the model that revolves around the operation and running of completed infrastructure by the municipalities seems more appropriate.

Case Study 4: Airport Rail Connection (AIRCON) Project CZECH REPUBLIC

Project/Location/Country	Airport Connection (AIRCON) Project, Prague, Central Bohemia Region, Czech Republic
Value/Cost of the Project	€ 465-560 million (preliminary estimation)
Rationale/Objectives of the PPP scheme	Improving the connection between Ruzyne International Airport and Prague, aiming to meet rapidly growing traffic by upgrading and extending the Prague-Kladno railway line, with the involvement of a private investor and operator
PPP Procurement/Main Dates	tba - preparation and realization of the project as PPP was approved by Government resolution No.76/19; January, 2005
PPP Partners/Actors	Ministry of Transport
Advisors of the Public Partner	Mott MacDonald (technical, CZ);
Local Companies/Banks	
PPP/Concession Period	30-40 years
Financial Structure	Capital contribution and revenue support provided by the Public Partner is envisaged
EU support	Envisaged
IFI Co-financing	Expected
Agreement between Parties	Long term DBFO type concession contract for the construction, financing, operation and maintenance of the railway line; a service contract to purchase and operate rolling stock and provide services
Agreements of Private Party	
Risk Allocation	The private sector should bear all major risks including construction risks and availability risks. Traffic/demand risk is expected to be shared with the Public Sector.
Institutional/Managerial Structure	
Users Contribution/Tariff setting	Fees paid by users buying tickets, track fees paid by rail operators and availability fee paid by the Public Partner; tariffs and track fees will be set by the State, availability fee is negotiable
Strengths	Careful and thorough preparatory process on behalf of the Public Sector, focusing on legal and regulatory framework
Weaknesses	Institutional instabilities and political interference caused several delays and hampered implementation Expected resistance to land acquisition in the 6th district of Prague may lead to re-alignment causing further delays Lack of convincing evidence that private sector interests are properly studied and considered

Background

There are currently no working transport PPP projects in the Czech Republic. Experience gained with two failed transport PPP projects (D5 Toller Motorway Projects in 1992 and D47 Toller Motorway Projects in 2004), made all public authorities extremely cautious.

The PPP method is being used for the preparation of the construction of a D3 motorway segment between Tabor and Bosilec and the railway connection between Prague, Ruzyně Airport and Kladno (AirCon Project). Other potential candidates for the inclusion in the PPP projects are the constructions on R6 or R35 roads. In future, it is intended that PPP projects could be used to provide public services, for instance for the maintenance of motorways and railways.

Project description

The main features of the project include:

- Improvement, double-tracking, electrification and new construction of a 19 km rail line between the centre of Prague and Prague International Airport (Ruzyně)
- Essential transport solution for the dynamically growing airport (doubling of passengers to 11.5 million between 2000 and 2006); extension to the Kladno satellite town in the vicinity
- Investment cost: approx. € 550 million
- A BOT or DBFO project – a long-term concession agreement for construction, operation and maintenance of the track; requires a private rail operator capable of taking over the public service obligation for rail transport on the Prague – Kladno line
- Pattern of risk sharing: Private partner – construction and availability risk; Shared demand risk
- Status: Verification and interest reconciliation phase
- Construction period: 2009 - 2012

The AirCon project comprises of two Phases:

Phase A: Completing a rail connection between Prague city center (Masaryk Railway Station) and Ruzyně International Airport: i. e. upgrading and doubling the existing single line track (13,4 km) and building a new double track extension to the airport (5.6 km). There are 7 stops, 2 terminal stations and 4 tunnels (totalling 4 km) planned in Phase A.

Phase B: Connecting Ruzyně International Airport to Kladno Railway Station by extending the double track railway line built under Phase A up to Kladno town (16.4 km). There are 4-5 stops and one terminal station planned in Phase B.

The existing single track railway line (Phase A) crosses environmentally very sensitive, elegant residential areas in Prague's 6th district; residents from the upper middle class have strong lobbying power to obstruct or postpone procurement or construction. The alignment of the new railway line to be built under Phase B is running on the surface, across non-residential, loosely populated areas outside Prague city.

Since a section of the Prague Western Railway Line (National Railway Line No.120) is intended to be incorporated into Phase A, the capacity of the upgraded line (used mainly by the private operator to be selected and designated within the PPP) should be shared by third party railway operators. The conditions of that capacity allocation and use are to be determined during procurement.

PPP Features

Public authorities have only vague expectations regarding PPP. Using the recommendations of the legal and financial advisors to be selected and engaged in the near future, PPP features (e.g. debt/equity ratio, revenue guarantee mechanism and limits of governmental capital support, risk allocation according to a model contract, etc.) will be discussed, amended and agreed upon later on. These issues will presumably be described in the tender documentation.

Experience to Date

In 2007, the AirCon Project was in an early stage of preparation. A revision and completion of the project tender documentation was launched for the zoning decision and the EIA. The project was incorporated into the Prague Zoning Plan dealing with land use and development. An interim organizational and technical advisor (Mott MacDonald, CZ) engaged by the Ministry of Transport provides support to prepare the tender documentation. The Ministry of Transport also considered hiring legal, financial and technical advisors, aiming to assist the public sector in managing the procurement procedure.

Several studies have been prepared during the preparatory works, among them the latest are:

- Feasibility Study of upgrade of the Prague-Kladno railway section, including a new line to the Ruzyně Airport (SUDOP Prague, December 2003)
- Study of the optimum funding of the project of upgrade of the Prague-Kladno railway section, including a new line to the Ruzyně Airport (Atkins, March 2004)
- Application of PPP in financing of transport projects from EU funds incl. Case study AirCon (Johnson and Kramarik, November 2005).

According to the Ministry of Transport the following questions/problems have to be soon answered or solved satisfactorily:

- Verification of chosen route/alignment: reconciliation of standpoints with Prague City and Prague 6th District needed; in case a compromise cannot be reached, the project may be re-routed
- Revision of the alignment to the overall Prague rail junction project
- Revision of value for money computations - Has anything important changed since these calculations were made?
- Public service obligation subsidy – only regional, or also airport traffic?
- Extending the scope: is a Prague – Kladno regional transport project feasible?
- Including EU funds and/or EIB loans into the PPP funding – what is really possible?
- Invite adjacent businesses, real-estate, include public lands etc. to form a pro-efficiency alliance facilitating implementation?

Lessons Learned

- An extremely careful approach is needed to prepare complicated PPP projects in an urban environment. Consideration for environmental and social safeguard issues such as land expropriation, resettlement, and noise effects among can hamper the delivery of an otherwise feasible project if mitigation measures are not planned and implemented. There should also be a special emphasis on the clear definition of terms and conditions of the public partner, including the contribution offered to make the project sufficiently attractive to the potential private partner and financially viable at the same time;
- It is highly advisable to engage well experienced financial and legal advisors to support the public sector in managing a proper competitive procurement procedure and to provide appropriate assistance in business negotiations leading to a mutually satisfactory deal.

Case Study 5: Privatization of Estonian Railways (ER) ESTONIA

Case Study/Country	Privatization of AS Eesti Raudtee an integrated railway line and freight operator; Estonia
Value/Cost of the Project	€ 264 million, from which € 64 million purchasing 66% of EVR shares and € 160 million commitment to invest in Estonian Railways (Eesti Vabariigi Raudtee-EVR) between 2001-2005
Rationale/objectives of the PPP scheme	Increasing efficiency of a vertically integrated freight services and rail infrastructure company, improving safety and quality of services using private sector experience
PPP Procurement/Main Dates	Invitation 1999, deal 2001
PPP Partners/Actors	AS Eesti Raudtee is owned by Baltic Railway Services OU (66%) and the government of Estonia (34%). Baltic Railway Services OU in turn is a company jointly owned by Rail World Estonia, LLC, a subsidiary of Rail World Inc. of the USA (25.5%), Jarvis International plc of the UK (25.5%), Rail-world Development Corp. of the USA (5%) and Ganiger Invest OU of Estonia (44%).
Advisors	GIBB
Local Companies/Banks	Subcontractors and service providers
PPP/Concession Period	indefinite
Financial Structure	Lump sum purchase price paid by 22% equity and 78% IFC loan
EU support	none
IFI Co-financing	€ 50 million IFC loan
Agreement between Parties	2001
Agreements of Private Party	Shareholders Agreement
Risk Allocation	Financial, commercial and operation risks are borne by the private partner
Institutional/Managerial Structure	
Users Contribution/Tariff setting	Track access charges set up by Estonian Railway Inspectorate, according to EU rules
Strengths	Performance and quality of services improved under private management, following privatization The project was well-structured and set an example how to privatize a vertically integrated rail company.
Weaknesses	Legal and administrative regulatory framework was not sufficiently mature to aid dispute settlement. Privatized company was unable to resist government actions carried out under EU legislation

Background

In Estonia, the first railway line opened between Paldiski-Tallinn-Narva-Gatshina in 1870. The independent Estonian Railways (Eesti Vabariigi Raudtee-EVR) was established in 1918. After 1940, the Estonian railways had become one of three operating divisions of the Baltic Railway, one of the 32 regional railway administrations in the Former Soviet Union (FSU) reporting to the Ministry of Railways (MPS) in Moscow. There were over 170 such divisions in the FSU as a whole. Following Estonian independence, what was previously simply an operating division of a regional administration became in 1992 a national railway, Eesti Raudtee (ER).

The railway sector plays an important economic role in Estonia by transporting large amounts of oil products, oil shale, and other bulk commodities that constitute a substantial part of transit traffic through Estonia. As in the rest of the Central Eastern European region, traffic initially fell and by 1995 was at around half of the 1989 levels. Passenger traffic has continued to decline since. But as in the Russian Federation, for which Estonia is a key transit route, traffic started increasing from the mid 1990s. By the year 2000 Estonia's freight transport performance exceeded its 1989 levels.

In 1997, the state-owned enterprise ER was split into a number of new entities:

- The main company became a joint-stock company *Eesti Raudtee AS* operating under company law, responsible for the main international lines and freight services using them;
- Predominantly domestic passenger lines in the south and east of the country were vested in a new passenger transport company, *Edelaraudtee AS*, which was then privatized. Edelaraudtee AS has offered passenger services on ER's network under a service contract with the government for which it pays track access charges;
- International passenger services (to/from St Petersburg and Moscow) were transferred to a train operating company, EVR Express; 51 percent of shares were sold to investors and 49 percent were retained by EVR;
- Commuter trains in the Tallinn area were also transferred to a suburban train operating company, *Electriraudtee Ltd/*, which was still publicly owned.

In 1999, the government of Estonia decided to privatize the state railway company AS Eestii Raudtee through the sale of 66% of the shares through public auction. Within three years of the share sale, all the land occupied by the company will be re-registered to grant 50-year leases of the land to ER. In April 2000, the Estonian Privatization Agency announced an impending sale of 66 percent of the share capital of ER to a strategic investor through international competition. Following a rather vexed competition in which an initial preferred bidder was unable to complete the transaction, majority ownership was sold to the second preferred bidder, Baltic Rail Services (BRS), in August 2001. This was the first privatization of a vertically integrated national railway company in Europe.

The expected advantages of that privatization were the following:

- Improved quality of customer service and relations
- Diversification of freight transport groups using the railway network
- Adapting international know-how to improve productivity and efficiency
- Introduce business management vs. political management into the railway sector
- To attract additional private capital to finance investments
- To achieve higher safety standards

Project description

The project comprised:

- The acquisition of 66% of ER's shares by a private company;
- The company's investment plan over the next five years including the replacement of EVR's locomotive fleet, track replacement and renovation, improvement of signaling and communications, station renewals and investments in environmental protection.

Basic features of the privatized company in 2004 were as follows:

- Total length of track (km) 1,320.5;
- Total length of railway lines (km) 690.7
- Freight locomotives 74 pcs
- Shunting locomotives 16 pcs
- Wagon fleet: 3,643 pcs
- Average number of employees: 2,512 (in 2001: 4231)

PPP Features

AS Eesti Raudtee (ER, the company) is owned by Baltic Railway Services (BRS) OU (66%) and the government of Estonia (34%). Baltic Railway Services OU is a company jointly owned by Rail World Estonia, LLC, a subsidiary of Rail World Inc. of the USA (25.5%), Jarvis International plc of the UK (25.5%), Railworld Development Corporation of the USA (5%) and Ganiger Invest OU of Estonia (44%). The U.S. shareholders have extensive experience in the railway industry internationally, while the U.K. shareholder has been heavily involved in rail infrastructure maintenance and renewal activities in the U.K. The Company has Supervisory and Management Boards.

Total project cost is estimated at € 264 million:

- EEK 1 billion (€ 64) million was paid by BRS to the government in 2001, acquiring 66% of ER shares
- BRS committed to investing EEK 2,56 billion (160 million €) in Estonian Railways in 2001-2005, assuming long-term responsibility for the safety and sustainability of Estonian Railways infrastructure

The acquisition of ER by BRS was partly accomplished by an USD 50 million loan from the International Finance Corporation (IFC). This loan was re-financed in 2003 with favorable terms which may indicate increased market confidence in the privatized company. According to the Company's 2004 Annual Report, the Company was already considering an initial public offering.

In terms of competition, at the time of privatization of ER, there was already a significant private freight train operation on ER's tracks, carrying oil products between a Russian refinery and the Port of Tallinn. This traffic continued to pay ER track access charges for its train paths. In 2003 third-party freight and passenger operators provided around 12 percent of ER's revenue. Although ER is a vertically integrated freight services and rail infrastructure company, the sale was conditioned on maintaining compliance with EU legislation including third party access conditions.

Experience to date

Although the financial performance of ER was already improving before privatization, the impact of private ownership and management has been considerable. The Company has completely replaced the old Soviet era locomotive fleet with reconditioned U.S. locomotives. Virtually all indicators of capacity, staff and equipment utilization have improved significantly, as has safety. The company had an operating ratio in FY2003 of around 65 percent, easily the best of any national railway organization in Europe.

According to BRS management, the investments since privatization until the end of 2004 totaled over € 140 million spent on locomotives, track renewal, wagons, signaling & communication, other rolling stock, station improvements and other items.

Estonia became a member State of the European Union on May 1, 2004. In late 2005 the Government enacted new rules obligating ER to allow open access up to 100% of its capacity. The majority owner BRS raised strong objections to this rule which was considered as a serious infringement on its ability to run its own freight trains. As BRS further claimed that most operators requesting access to track are ER's customers, ER loses its own freight business by providing access.

What was once applauded as a successful divestiture of the two-thirds of ER to a private sector consortium (BRS) started facing serious challenges. In 2006, the Government indicated disappointment with how BRS had been meeting its post-privatization commitments. Ganiger Invest of Estonia, one of the shareholders of BRS, then announced its willingness to sell its share in ER. A public-private confrontation developed in the waning days of December 2006 with the Cabinet imposing a € 1 million penalty on BRS for violation of post-privatization commitments. Subsequently, the Economy Minister signed an agreement on October 18, 2006 to re-nationalize Estonian Railway by purchasing the remaining 66 percent of the company for EEK 2.4 billion. The deal was approved by Parliament shortly after acknowledging that it was a fair price for the purchase, since the company had been buoyed by about EEK 2.0 billion (€ 118 million) worth of investment during its years in private hands.

Lessons Learned

- Reforming a complex industry is a long-term process: putting in place mutually supportive legislative, institutional and management structures to deliver substantive change takes a great deal of time and effort.
- Structural separation of railway infrastructure from rail operations cannot in and of itself improve business performance. It may, in the short-term, impede it by becoming too narrow a focus of reform and delaying the business culture and process changes, in both infrastructure and operations, which will actually improve asset and labor utilization. If separation is favored, it needs to be closely followed by rigorous business plans in both infrastructure and train operating companies to improve performance.
- The most promising place to attract the private sector into core activity is in rail freight operations. Governments in most SEE and CEE countries are committed to owning the railway infrastructure network, and also have a clear social and close political interest in passenger services.
- For most railways in developing countries, railway reform should not necessarily mean stand-alone profitability for each line of business. Railways having modest average traffic intensity and a high component of passenger service will require substantial levels of budgetary support for investment and support of passenger services. In many countries, railway passenger transport alone is not commercially viable as it is not able to cover the full costs of infrastructure. Provision of a comprehensive national passenger rail service is a public policy choice to be guided by the public finance constraint.
- Both the Government and the private sector must maintain consistent views and aspirations with respect to PPP after privatization. Inconsistent policies and monopolistic practices that are often found after the contract is implemented result in disputes between the public and private partners causing further uncertainty and adverse effects on the results of privatization.
- The railway privatization experience in Estonia started with a highly positive tone with good results shortly after the sale of the majority shares to the private sector. The disputes that emerged after the sale and political intervention led to the failure of another transport PPP project in the CEE region, which affects future privatization initiatives in the railway sector.

Case Study 6: M5 Toll Motorway Project, HUNGARY

Case Study/Country	M5 Toll Motorway Project (146km), implemented in three Phases; Hungary	
	Original structure (1995)	Renegotiated structure (2004)
Value/Cost of Project	First Phase: € 370 million	Refinanced First Phase plus Second and Third Phases: € 1,120 million
Rationale/objectives of the PPP scheme	BOT type completion/extension of existing sections (57km) up to 97 km toll motorway (First Phase), under severe public funding constraints	Refinancing First Phase debt, selling 40% shares of AKA to the State, substituting tolls by availability fee; finance, build and operate Second and Third Phases (45+14 km)
PPP Procurement/Main Dates	Open competitive tender, short-listed three, final negotiations with two bidders (1992-1995)	Direct negotiations with AKA based on options related to Second and Third Phases, defined by CC (2002-2004)
PPP Partners/Actors	AKA Rt (Bouygues S.A, BauHolding AG), Ministry of Transport	
Advisors	Stroock, Stroock & Lavan (USA, legal), Deutsche Kleinwort Benson (UK, financial), ENCON+Object (H, technical), Halcrow Fox (UK)	Booz Allen and Hamilton (USA), PriceWaterhouseCoopers(H), ING (H), EUROOUT (H)
Local Companies/Banks	Subcontractors, suppliers, engineer (Utiber Kft), Budapest Bank (H)	CIB Bank (H), Hungarian Development Bank – MFB (H)
PPP/Concession Period	35 years (1996-2031)	
Financial Structure	82%/18% Debt / Equity ratio, EBRD A-loan + syndicated B-loan (Commerzbank, ING and 14 others), EBRD guarantee (bullet); Minimum revenue guarantee (capped totally and on six monthly basis) through stand-by operational subsidy provided by the State for first 6.5 operation years	88%/12% Debt/Equity ratio; € 750 million syndicated bank loan provided by 5 banks (EBRD, CIB, Banco Espirito Santo, West LB, and MFB) (EBRD A-loan € 150 million); 20 years maturity Pricing: LIBOR+120-160 bp
Agreement of Parties	Concession Contract (1994) amended in 1995 and in 2004	
Agreements of Private Party	Construction; Operation & Maintenance; Independent Engineer, Insurance; Loan & Guarantee Agreements	
Risk Allocation	Construction, maintenance, operation, financial risks, majority of commercial risks are borne by the private sector; Political, legal and exchange risks, small part of commercial risks are borne by the public partner	Construction, financial and availability risks are borne by the private sector, bulk of commercial risks are borne by the public partner

	Original structure (1995)	Renegotiated structure (2004)
Institutional/Managerial Structure	Winner consortia established SPV: AKA Rt, and operator: Magyar Intertoll Rt. (both registered in Hungary)	
Users Contribution/Tariff setting	Direct tolling, initial rates (€ 0.12/km/car) provided in CC, adjusted according to an inflation + currency depreciation mechanism (1998-2004).	Direct tolls replaced by general motorway vignette in March 2004, (rates fixed by the State); State pays € 92.5 million/year availability fee based on performance criteria to AKA
Strengths	<p>Steady commitment of the Public Partner demonstrated by accepting phased implementation of the whole project and downsizing the First Phase, providing in-kind contribution and revenue shortfall mechanism to improve financial viability and long term sustainability;</p> <p>Flexibility of the Private Partner in adapting to changing conditions and seeking compromise: introducing a system of toll rebates, initiating refinancing its debt in due time, accepting the partial buy-out of AKA Rt shares by the State (40%) and abolition of toll boots, transition onto the availability fee payment mechanism;</p> <p>All three Phases were completed on time and within budget, several years earlier than they would have been built using only public funding;</p> <p>Good practice of construction, operation and management applied by AKA and Magyar Intertoll are now widely acknowledged and implemented also in publicly financed motorway projects.</p>	
Weaknesses	<p>Uncertainty of traffic forecasts in an international transport corridor without previous experience of tolling implied high risk premiums, increasing PPP project costs;</p> <p>Resistance to tolling and frequently changing objectives of the public partner (influenced heavily by public opinion and media) exerted high pressure on the private partner;</p> <p>Compromises that were heavily influenced by public opinion and media pressure created serious contingent liabilities and increased financial risk for the Public Partner.</p>	

Background

The M5 motorway runs southward from Budapest to the Hungarian/Serbian State border, a distance of approximately 175km. It is the main link from Budapest to Hungary's Southern region and an important extension of the western and central European motorway network towards Belgrade and Bucharest. The route forms part of the main international transport corridor linking Western Europe to the Balkan region. It is part of the UN-ECE promoted Trans-European North-South Motorway (TEM) Project and lies in the Pan-European Transport Corridor IV. (Berlin-Praha-Bratislava-Budapest-Bucharest-Thessaloniki-Istanbul).

Pre-qualification documents were released to private sector bidders in April 1992.

Following the selection of three pre-qualified bidders in September 1992, a tender was launched in 1993, leading to the selection of two preferred bidders in February 1994. A 35-year concession contract was signed with the successful bidder, a special purpose company formed in May 1994 by the French-Austrian-Hungarian consortium Alföld Koncessziós Autópálya Rt. (AKA) to finance, build and operate the M5 Toll Motorway in three Phases, containing firm commitments related to the First Phase, and options for the subsequent phases.

The founding shareholders of AKA Rt. were Bouygues SA, Bau-Holding AG, Screg SA, Magyar Aszfalt Rt. Financial close was delayed until December 1995 as the lending banks had requested a new traffic study. As a result, this increased the required revenue support for the project from the Hungarian authorities. The operating and maintenance services are provided to AKA by Magyar Intertoll Rt, a company fully owned by the South African toll road operator, Intertoll SA. The concession was granted in accordance with the Concession Act XVI/1991.

Project description

The M5 Toll Motorway Project consists of the following phases:

First Phase (96.4 km)

- Stage 0: Upgrading and tolling a 26.1 section of 2x2+emergency lane existing motorway in operation, from the M0/M5 interchange (located 17.4 km from Budapest) to Ujhartyán (completion date January 1997)
- Stage 1A: Completion of 30 km existing half-motorway (operated as an expressway) by building the second carriageway of a 2x2+emergency lane motorway and tolling it between Ujhartyán and Kecskemét North interchange (completion date January 1997)
- Stage 1B: New 17 km 2x2+emergency lane toll motorway (Kecskemét bypass, completion date January 1998)
- Stage 1C: New 23.3 km 2x2+emergency lane toll motorway from Kecskemét South interchange to Kiskunfélegyháza (completion date June 1998)

In this first phase, a semi-open toll system was applied with two main toll plazas and eight secondary toll barriers at the interchanges. AKA had an option (expiring in 2004) to finance, build and operate the Second and Third Phases without a new competitive tender, provided the actual traffic volumes made it economically and financially viable.

Second Phase (45 km)

- New 45 km 2x2+emergency lane motorway up to Szeged and Kunszállás interchange on Stage 1C section (completion date 2005)

Third Phase (14 km)

- New 15 km 2x2+emergency lane motorway up to Rösztke at the Hungarian/Serbian State border (completion date 2006)

The second and third phases were completed without toll collection facilities and equipment; those facilities built within the framework of the first phase were demolished in 2004-2005. Direct toll collection was substituted in March 2004 by the vignette system managed and controlled by the State Motorway Management Company (SMMC). The revenues of AKA consist of availability fees based on performance criteria agreed upon in the amended concession contract, paid by the Treasury.

PPP Features

Original structure (1995)

The First Phase of the M5 Toll Motorway project cost € 370 million. Of this € 66.6 million was equity, V52.0 million was an EBRD A-Loan, € 198.0 million was an EBRD B-Loan and the remaining € 53.4 was a HUF loan. The EBRD "A" Loan was provided directly by the EBRD, whilst the "B" Loan was arranged by Commerzbank and ING and provided by 14 commercial banks. However, by virtue of its multilateral status, the EBRD extended its preferred creditor status ahead of other lending institutions for possible rescheduling or revenue shortfall. At the time, the "B" Loan was the largest non-sovereign international commercial bank loan raised by a Hungarian borrower. The loans were to be repaid in annuities with a 18-year maturity. The final repayment was going to be due in year 13 as a "bullet" payment, corresponding to 55% of the initial principal. For the commercial banks to accept this structure, the EBRD provided a guarantee for the final repayment.

The Government of Hungary was obliged for the first six and a half years of commercial operations (i.e. until 2006) to provide AKA with compensation in the form of a subordinated loan facility, repayable after senior lenders were repaid, in the event that AKA's actual revenues were to fall below the levels in the Agreed Base Case (revenue shortfall mechanism). The total amount of the stand-by shortfall facility was capped semi-annually and totally at HUF 9,000 million in 1993 (approximately € 50 million).

The Concession Agreement required the Government to provide the following at no charge: the preliminary design for the Project, building permits and environmental clearance, land acquisition, such roads and motorways that already existed and traffic control measures on competing roads. In return for the above in-kind and financial contributions the Government will be reimbursed through a profit sharing scheme, which is expected to account for approximately one third of the dividend stream forecast in the agreed base case.

The toll for passenger cars was set at €0.12 per km in 1993 terms with a 3.5 multiple for heavy goods vehicles. Discounts for residents and frequent users were agreed. AKA was permitted to adjust toll rates in accordance with the Hungarian retail price inflation and with any devaluation of the Hungarian currency, should such depreciation exceed the inflation differential between HUF and the respective foreign currency in which AKA's external indebtedness is denominated.

Renegotiated structure (2004)

All AKA's borrowings were refinanced in 2003. The objective was to extend loan maturity and take advantage of lower prevailing interest rates, and to increase the amount of debt in the overall financing in relation to the equity to improve the equity rate of return. Subject only to the support arrangements and in particular the revenue deficiency facility, all operational, commercial and financial risks were placed on AKA. Thus, repayment of AKA's borrowings and the payment of dividends to AKA's investors were going to depend on AKA's cash flow and profitability. As a result of lengthy negotiations started in 2003 to amend the Concession Contract and re-structure the whole M5 Toll Motorway Project, the State Motorway Management Company (SMMC) acting on behalf and in the name of the State, bought 39.48% of AKA shares at a price of HUF 14,000 million in March 2004.

The refinancing allowed original shareholders to get an early return on their equity, while the first dividend according to the “base case” was not expected before 2012. According to the amended Concession Contract, direct toll collection was substituted by the vignette system, managed and controlled by SMMC. An availability fee mechanism (based on performance criteria) was introduced assuring monthly payments (totaling € 92.5 million/year) from the Treasury to AKA. The State obtained an option to buy out the remaining shares of AKA (i.e. to re-nationalize the company) at a time-dependent fixed price, up to 2008.

According to the Concession Agreement as amended in 2004, AKA successfully completed second refinancing, signing a syndicated loan agreement (€ 750 million, including € 150 million from EBRD) with five mandated banks (EBRD, CIB, Banco Espirito Santo, West LB, and MFB), increasing the total project cost up to € 1,120 million.

The construction of the Second Phase (between km 113.5-159.2, up to Szeged North) was also launched in 2004(construction costs € 356 million, 2003 terms) and completed in December 2005. The construction of the Third Phase (between km 159.2-173.9, construction cost € 160 million, 2003 terms) was completed in March 2006.

Experience to Date

The construction of the First Phase was achieved on schedule, or for some sections, ahead of schedule and within budget. Since the government provided capped, contingent, revenue shortfall support during the first 6.5 years of commercial operations, the M5 continued as a viable PPP, despite lower than forecast traffic volumes.

After tolls were imposed on an existing road alignment, extensively used by domestic and international heavy goods vehicles, a significant amount of traffic in the corridor, (50% or greater in the first year of commercial operation), diverted to Route No. 50, an untolled road running parallel to the M5. The vehicles diverting to Route 50 mainly comprised local residents and cross border truck traffic, especially from Bulgaria, Romania and Turkey. The increased noise and safety hazards led to protests by local residents. Subsequently, following an agreement between the Ministry of Transport, AKA, AKA's lenders and the relevant municipalities, traffic control measures were implemented on Route No. 50 and new bypasses were going to be built. While AKA was able to resist pressures to reduce the agreed toll rates on the M5 (in contrast to a similar situation prevailing on the M1 Motorway), it did agree to a program of more substantial discounts for frequent and local users. Some users brought legal cases against AKA concerning the toll rates but the Courts rejected these complaints.

In 1997, the first year of operations, AKA had to draw on the stand-by facility (cash deficiency or revenue shortfall fund) agreed with the government, but was able to avoid a default. Following a proactive marketing campaign by AKA and traffic control measures implemented by the Government on competing routes, the requirement to draw on the stand-by facility in 1998 and in subsequent years was significantly reduced. The availability of the revenue shortfall mechanism provided a critical safety net to AKA. Without it, AKA would have found itself in default in the same way that the M1-M15 was unable to pay its debt service obligations.

Following the approval by the Hungarian Parliament, the Third Amendment to the Concession Contract was signed in September 2004. The availability fee to be paid by the State was set to € 92,5 million per year, from which deductions will be made depending on the availability of the road to motorists, the performance and safety of operation. Traffic volumes increased substantially following the abolition of direct tolling.

The Ministry of Economy and Transport announced its intention to use the put option in spring 2007, but was unable to obtain the lenders' consent (prescribed by the Concession Contract as a condition precedent). There was no appropriate amount of money allocated for that purpose in the 2007 budget either. The philosophy behind that initiative was first to buy out 60% of the shares and then sell them at a substantially higher market price to generate additional revenues for the Treasury. Assessing the fiscal risks attached to the proposed transaction, the Ministry changed its mind in June 2007, when it selected and engaged financial advisors through competitive international tender to assist the government (namely SMMC) to sell its shares in AKA, allowing the latter to become again a fully privately owned company. The "re-privatization" of AKA was to be completed by the end of 2007.

Lessons Learned

- The M5 experience highlights the importance of an appropriate allocation of risks between the public and private sectors and the critical requirement to avoid transferring unmitigated traffic risk to private sector investors and their lenders. This is especially important in transport corridors without previous experience of tolling;
- The early operating experience of the M5 illustrates the difficulties, which even the most experienced traffic forecasters have, in arriving at reliable forecasts of toll acceptance by drivers in a traffic corridor with no prior experience of tolling;
- Given the inherent uncertainty of traffic forecasts in such situations, the Government support arrangements, especially the revenue deficiency facility, were critical in ensuring the financial existence and viability of the Project and in avoiding the risk premiums otherwise required by lenders and investors;
- Experienced technical, traffic, financial and legal advisers were important for both the Government and the private sector to achieve a satisfactory allocation of risk and an appropriate revenue support mechanism;
- The financial viability of a capital-intensive road project depends on achieving loan maturities of sufficient length. The loan maturities available to borrowers in Hungary in 2003 have substantially increased as a result of Hungary's improved economic position and integration with the EU . The EBRD played a critical role at the time in achieving the necessary loan maturities;
- The project offered useful lessons in project finance for the Hungarian banking sector;
- Even without the improvement in Hungary's overall economic position, the rate of return to investors would have been significantly improved by refinancing the original loans once construction risks had disappeared and the financial results for the early operating years had become available to lenders;
- Political support, public acceptance of tolling and public willingness to pay are critical components of any PPP design. Acknowledging the existence of non-tolled alternative parallel or competing routes is also important as it directly affects the traffic volumes on tolled project roads and hence the collected revenues.

Case Study 7: A1 Tolled Motorway Project - POLAND

Case Study/Country	A1 Motorway Gdansk-Torun; Northern Poland
Value/Cost of the Project	€ 680 million (1st Phase)
Rationale/objectives of the PPP scheme	Financing, construction and operation of a toll motorway under a BOT type concession in 2 Phases
PPP Procurement/Main Dates	Concession granted 1997, Concession Agreement signed 31 August 2004, concession rights for 2nd Phase withdrawn in December 2006
PPP Partners/Actors	GDDKiA (Polish Road Authority) / Polish Ministry of Infrastructure; Gdansk Transport Company- GTC (John Laing UK, Skanska BOT, Intertoll South Africa, NDI SA Polish Property Developer)
Advisors of the Public Partner	White and Case (legal)
Local Companies/Banks	Subcontractors and employees engaged
PPP/Concession Period	34 years to 2039
Financial Structure	First Phase is financed by € 42.3 million equity and € 500 million EIB plus € 140 million of Nordic Investment Bank loans with 30-year maturity
Agreement between Parties	Construction and operation both contracted out to SPVs
Agreements of Private Party	Construction Contract with JV formed by Skanska and NDD
Risk Allocation	Construction and availability risks are borne by the private partners, commercial risk is shared
Institutional/Managerial Structure	Conventional PPP scheme
Users Contribution/Tariff setting	Toll planned to be collected in a closed system; Tariffs set by the State
Construction	2005- 2008 (planned schedule)
Strengths	Commitment and endurance of the private partners to meet their obligations and save the project Apparently a well-structured PPP project, although its viability is to be proven after construction completion
Weaknesses	Political interference and institutional instability seriously hamper implementation Lengthy procurement procedures lead to high risks and increased costs

Background

The A1 Motorway in Poland, or European Road E75, is part of the Pan-European Transport Corridor No.6 and has been a priority element of the Trans-European North-South Motorway Project supported by UNDP and UN-ECE since the mid-1970. This route links Scandinavia to the countries located along the Mediterranean Sea. The corridor stretching from the Baltic Sea across the Czech Republic and Slovakia to Austria, Hungary, Croatia, Serbia, Romania and Bulgaria will provide a modern transit route between the Baltic and the Adriatic seas. The Polish section of the A1 motorway extends for 568 kilometres and runs from Gdańsk through Toruń, Łódź, Częstochowa and Katowice to Gorzyczki where it crosses the State border.

In August 1997, following a competitive tender process, Gdańsk Transport Company (a special purpose company) as a single bidder obtained the concession to finance, build and operate a section of the Autostrada A1 from Gdansk to Toruń. The tender documentation assumed that the project would require a partnership between the State and the private partner to be feasible and sustainable.

The first date set for the signing of the Concession Agreement (the Agreement) was April 1998. However, the lack of appropriate enabling legislation (Toll Motorway Act and the Vignette Parliamentary Act), the concession agreement could not be signed.

In November 2003, the Toll Motorway Act was finally passed by the Parliament and negotiations resumed. In effect, the tolling system was restored. In an effort to overcome the impasse in the negotiations, Gdańsk Transport Company reviewed its proposal based on the amended motorway specification one more time and consented to a price reduction for the construction works. Those terms were approved by the Government.

Having been originally planned as a single stage project, the construction of the Autostrada A1 section was divided into two phases. The Concession Agreement for Phase 1 of the investment – the 90-kilometer long stretch from Gdańsk to Nowe Marzy, was signed on 31 August 2004. In September 2005 all conditions precedent for drawing on the loan facilities were fulfilled and the financial close was reached for Phase 1 .

Project description

- Phase 1: Financing, building and operating the Gdansk – Nowe Marzy (90 km) section
- Phase 2: Financing, building and operating the Nowe Marzy – Torun (62 km) section

The project scope comprised the construction of the motorway in compliance with international standards, as a closed dual carriageway with two traffic lanes in each direction, one central median and an emergency lane along both carriageways. Grade-separated interchanges located at intersections with the major national roads were to ensure access to the existing road network.

For a given section, a uniform toll collection system was planned. Toll collection stations were to be located on the connecting roads leading to the junctions, i.e. outside the main motorway route. Only one tolling plaza was to be located on the road itself. The motorway was to be equipped with the most modern infrastructure available internationally, which will in the future allow switching from manual to an automatic system of toll collection. The toll will be based on the vehicle class and the distance travelled.

PPP Features

The shareholders in Gdańsk Transport Company were: Skanska Infrastructure Development AB from Sweden, John Laing Infrastructure Ltd from the UK, NDI Autostrada Sp. z o.o. from Poland, and Intertoll Infrastructure Developments BV from the Republic of South Africa.

Financial closure for Phase 1 was reached in July 2005. The Debt/Equity ratio of 94%/6% was unusually high considering the type and features of the project. The First Phase was financed by € 42.3 million equity and an € 500 million EIB loan of a 30-year maturity. The EIB is financing 74% of project costs; the Nordic Investment Bank complements the long-term debt financing with a similar loan (€ 140 million). White & Case advised the European Investment Bank (EIB) and the Nordic Investment Bank (NIB) in their combined € 640 million debt financing for the design, construction, operation and maintenance of the First Phase of the A1 motorway. The firm prepared a Polish security

package for financing the First Phase of the project; performed legal due diligence of the existing project documentation; and proposed amendments to the concession.

Design and construction is subcontracted to a joint-venture company consisting of Skanska AB's 100% owned Polish subsidiary 'Skanska Poland' and NDI SA. The Contractor of the First Phase is the Skanska-NDI Joint Venture. It consists of two independent companies – Skanska S.A. and NDI S.A. Skanska S.A. owns 80% of the contract, while NDI S.A.'s share is 20%. The supply and installation of tolling equipment was subcontracted to Intertoll Polska, which was also responsible for operations and routine maintenance.

The repayment mechanism for the project is predominantly availability fee based, with a minority shadow toll element.

Experience to Date

Construction works at the First Phase of the A1 Motorway Project i.e. from Gdańsk to Nowe Marzy commenced at the end of 2005. According to the Concessionaire, the works were advancing on schedule and the opening date, scheduled for the end of 2008, was to be kept. The signature of the confirmation or amendment to the Concession Agreement concerning the Second Phase (the 62-kilometer stretch from Nowe Marzy to Toruń), (even though it is included in the original description of the concession) has been delayed several times.

Referring to high construction cost and slow progress, on 15 January 2007, the Minister of Transport issued a decision of 25 August 1997 which granted to Gdańsk Transport Company (GTC) JSC a concession for construction and operation of Toll Motorway A1: Gdańsk (Pruszcz Gdański Junction, km 0+000) – Toruń (Czerniewice Junction, km 151+900) amended by Minister of Infrastructure Decision No SP-2x/025/134/04 of 20 August 2004. According to the Ministry of Transport, GTC shall complete construction works under the effective Concession Agreement on the Gdańsk – Nowe Marzy section of the A1 Motorway, while the General Directorate for National Roads and Motorways (GDDKIA) will manage construction of the Nowe Marzy – Toruń section as a public investment.

The Ministry has postponed the final deadline of the investment by three years; the Gdansk-Torun section of the A1 Motorway is expected to be ready by 2010. On 27 April 2007 GTC lodged a claim against the decision of the Minister of Transport declaring the expiration of the Concession for the construction and operation of the A1 Motorway on the section Nowe Marzy – Czerniewice, near Toruń, to the Voivodeship Administrative Court in Warsaw. This on-going litigation makes the outcome of the A1 Toll Motorway concession project highly uncertain.

Lessons Learned

- Access to private financing depends on reliable government track record
- A functioning legal system and dispute resolution mechanism is key to a successful concession process
- Changes in legislation can lead to major renegotiations and delays
- The contract framework should handle anticipated risks, such as construction cost overruns and delays, by including appropriate compensation or punitive measures.
- The success of a PPP project can only be gauged after the construction and at least five years of operation have gone well.

Case Study 8: A2 Toll Motorway Project -POLAND

Case Study/Country	A2 Toll Motorway Project, Poland
Value/Cost of the Project	€ 875 million (1st Phase)
Rationale/objectives of the PPP scheme	Finance, build, operate two (149+104 km) sections of A2 Toll Motorway by a private concessionaire (BOT)
PPP Procurement/Main Dates	Open tender, negotiations with single bidder; 1995-1997
PPP Partners/Actors	Ministry of Infrastructure; Autostrada Wielkopolska SA (AWSA), A2 Bau Development GmbH (main contractor); Autostrada Eksploatacja SA (operator);
Advisors	WS Atkins, Baker & McKenzie, Gruszczynski i Wspolnicy, Louis Berger Group
Local Companies/Banks	Subcontractors and employees engaged
PPP/Concession Period	40 years (ends 2037)
Financial Structure	Financial close reached in 2000; debt/equity ratio 73/27%; senior debt guaranteed by the State € 115 million equity from sponsors € 123 million subordinated debt from sponsors € 235 million senior bank debt, 17 year flexible maturity € 275 million EIB loan Balance financed from toll revenue. Innovative cash sweep: borrower makes 6-monthly payments into a debt reserve account from excess cash flows to repay early after 13 years Part of the bank loan can be drawn in local currency Pricing: LIBOR + 180-235 bp
Agreement between Parties	Concession awarded 1996, Concession Agreement signed 1997, amended/renewed 2000
Agreements of Private Party	Construction contract O&M Agreement
Risk Allocation	Construction and availability risks are borne by the concessionaire, commercial and financial risks are shared
Institutional/Managerial Structure	
Government support	Loan guarantee for EIB loan
Users Contribution/Tariff setting	Tolls are collected at 3 toll stations; tariffs set by the State
Construction	2001-2007
Strengths	Phased implementation helped to structure a financially viable PPP project. In-kind capital contribution, guarantees of the public partner, acceptance of direct toll collection by the users and toll revenues pledged to the concessionaire made the First Phase project work
Weaknesses	The protracted discussions on the financial structure in the procurement caused unnecessary delays and cost increases Institutional instability, unsettled disputes and growing mistrust among partners seriously hampers proper implementation of agreements Changing conditions of tolling by the government is interpreted by the private sector as materially adverse action which has to be fully compensated

Background

The construction of section Nowy Tomyśl – Poznań – Września - Konin of the A2 Motorway connecting Minsk and Warsaw to Berlin is a key element of the road infrastructure development in Poland, especially in the district of Wielkopolska, and a high priority element in the long term development plan. The main objective is to connect Poland with the European Union's motorway network as soon as possible.

In January 2003, Autostrada Wielkopolska SA became the first special purpose entity to be incorporated in Poland. It was founded to finance, build and operate A2 Motorway. In 1995 Autostrada Wielkopolska SA submitted its bid in a two-stage international tender launched by the Agency for Motorway Construction and Operation (AbiEA) for the construction and operation of A2 Toll Motorway from Świecko (at the border with Germany) to Stryków (near Lodz). Following the success of the bid submitted by AWSA, the Concession for the financing, construction and operation of A2 Motorway was awarded in 1996.

The Concession Agreement was signed in 1997, for a concession period of 40 years (expiring in 2037). The need to agree on the financial terms of this public-private project made it necessary to continue negotiations and execute four Annexes to the Concession Agreement which laid the grounds for the discussions and the structure of the financing, leading to financial close. The Project was divided into phases, milestones and financing segments. In 1998, the 13.3 km section of the Poznań Bypass was excluded from the financing (it was eventually financed from a PHARE grant, the European Investment Bank Loan and from the State budget). Following its construction, it was taken over by AWSA for operation and maintenance as of 12 September 2003.

As a concessionaire, Autostrada Wielkopolska SA had to finance, build and operate the toll motorway from Świecko to Stryków (303 km). Subsequently, during the renegotiations of the Concession Agreement, it was agreed that AWSA would build and operate A2 Motorway only from Świecko to Konin (around 253 km), while the remaining section between Konin and Stryków was going to be built as a public investment project.

Project description

The project is to be implemented in two phases, as follows:

Phase 1

- Upgrading and tolling of the existing motorway section (47.5 km) between Konin and Wrzesnia
- Take-over of Poznan bypass (13.3 km) upon completion for non-tolled operation
- Construction of Wrzesnia-Poznan (37.5 km) and Poznan-Nowy Tomysl (50.4 km) toll motorway sections
- Operation (including toll collection) and maintenance of the whole Konin-Nowy Tomysl section (149 km)

The cost of the First Phase (Nowy Tomyśl – Poznań section) according to the Financial Plan in the Concession Agreement (Annex 4) of October 2000 was agreed to be € 875 million. Of that 73% were direct construction and design costs (€ 637.5 million). This is the lump-sum turnkey contract price for the fully equipped motorway, ready for operation.

Phase 2

- Construction and operation of the Nowy Tomyśl to Świecko section.

PPP Features

The Minister of Infrastructure was the party to the Concession Agreement on behalf of the Polish government, while the body responsible for its implementation is the General Directorate of National Roads and Motorways. To meet its obligations under the Concession Agreement, a Development Company was established: A2 Bau Development GmbH (founded by the shareholders of AWSA: Strabag AG and NCC International AB) which was responsible for construction as the main contractor. To ensure proper implementation, the Minister and the Concessionaire appointed an Independent Engineer, WS Atkins of the UK, to supervise the design process, the construction and operation of the motorway, and the proper execution and adequate quality of works. Since the land under the motorway remained as property of the State Treasury, the Company agreed to pay an annual rent of PLN 7 million (€ 1.85 million).

The project was structured to ensure that the toll revenues permit repayment of the loans for A2 construction, provide the funds for the operation and maintenance, and yield profits to the concession company shareholders and the Government.

The funds came from three major sources:

- Equity coming from the Concessionaire's shareholders accounting for more than 26% of the total development cost (an unprecedented equity share in Poland), the share capital (€ 115 million) and a bond issue and supplier credit (€ 123 million);
- Commercial loans (Senior Loan) of € 235 million (26%) from Commerzbank and Credit Lyonnais;
- A long-term € 275 million (33%) loan from the European Investment Bank with the Polish state treasury as guarantor.

The remainder of the finance (15%) came from toll revenues collected at the toll plazas and the interest gained on the cash balances within the period of project implementation. Tolls are collected in an open toll collection system, at three toll stations.

According to the financing plan for the First Phase, it was estimated that AWSA, the Operating Company and the Development Company will pay to the State Treasury during the concession period approximately PLN 16.2 billion (€4.3 billion) in form of VAT, income taxes and other fees payable by the Concessionaire. On top of that, if the return exceeds 10%, the State Treasury will receive a 20% share in profits, which may go up to 50% if the return exceeds 15%.

The operation, toll collection and maintenance of the A2 Toll Motorway section is operated by the operator company Autostrada Eksploatacja S.A, (AESA) according to an O&M Agreement signed with the Concessionaire, Autostrada Wielkopolska S.A.

Experience to Date

The construction works were carried out by the main contractor A2 Bau Development GmbH (formed by Strabag and NCC), under a lump-sum turn-key contract. The section from Konin to Września was opened for traffic on December 22, 2002, the section from Września to Poznań-Krzesiny on November 27, 2003, and the section from Poznań-Komorniki to Nowy Tomyśl on October 27, 2004.

The Concessionaire has full control over the expenses. The toll revenues generated so far slightly exceed the assumed levels, which reduces the risk that guarantee provided by the State Treasury will be exercised.

Following the Toll Motorway Act of July 2005, trucks of up to 3.5t can use the A2 toll motorway free of charge, provided they display of a valid road charge card (vignette) which is usually purchased as a type of road tax. The concessionaire is eligible to be compensated by the State, which has to pay 70% of the “lost” toll revenue. However, this has become a controversial issue (both the method of calculation and payment of compensation) and is the subject of a dispute between AWSA and the Polish government, seriously hampering negotiations to agree on the funding and construction of the Second Phase of the project.

Annex 5 to the Concession Agreement, which outlined and specified the technical and financial conditions for the construction of the Second Phase, i.e. the section from Nowy Tomyśl to Świecko, was signed on October 27, 2004 when the motorway section Nowy Tomyśl – Poznan opened for operation. The new section of A2 motorway between Konin and Lodz, adjacent to the AWSA concession, opened in July 2006.

Discussions and negotiations have been conducted with potential financing parties (the commercial banks and the European Investment Bank), the relevant authorities and the Directorate of national Roads and Motorways (GDDKiA) to achieve the Financial Close required to start construction works for the Second Phase. This phase was provisionally planned to be completed by 2010.

Lessons Learned

- Appropriate government contribution is necessary to launch a PPP-type motorway project if the users’ willingness to pay and traffic volumes are weak;
- Institutional instability, unsettled disputes and growing mistrust among partners seriously hampers the proper implementation of PPP agreements;
- Changes in the user payment mechanisms can adversely affect a PPP project with a direct impact on revenue, potentially leading to protracted renegotiations, mistrust and dissatisfaction. The vignette replacement of tolls is a clear example of how a policy change (especially if it is unforeseen) can negatively impact a PPP project.

Case Study 9: Katowice-Krakow A4 Toll Motorway Project - POLAND

Project/Location/Country	61 km long Katowice-Krakow section of A4 Tolloed Motorway, Southern Poland
Value/Cost of the Project	€ 50 million (First Phase) € 84 million (Second Phase)
Rationale/objectives of the PPP scheme	Tolling, operation and maintenance of a motorway by a private concessionaire and operator
PPP Procurement/Main Dates	1995-1998
PPP Partners/Actors	Stalexport S.A replaced by Stalexport Autostrada Małopolska S.A. (SAM) on 28 July 2004
Advisors of the Public Partner	
Local Companies/Banks	subcontractors
PPP/Concession Period	30 years
Financial Structure	Mainly debt financing
EU support	none
IFI Co-financing	EBRD; € 60 million to rehabilitate existing road before handing over to concessionaire
Agreement between Parties	Concession awarded 15 of March 1997, Concession Agreement signed 19 of September 1997, renewed 17 October 2005
Agreements of Private Party	O & M Agreement with Stalexport-Transroute Autostrada (SAT, est. 1998, 55% SAM; 45% Egis) Transroute International, an Egis group company, has been the operator of the A4 motorway section Katowice-Krakow since April 2000; working through the Polish operating company Stalexport Transroute Autostrada SA within a 27 years operation and maintenance contract with the concessionaire Stalexport.
Risk Allocation	Construction risk is negligible, availability and operation risk is borne by the private partner
Institutional/Managerial Structure	Operation and maintenance is contracted out to STA
Users Contribution/Tariff setting	Toll collected in open system. Tariffs set by the State
Implementation/Construction	First Phase 1996-2003
Strengths	First motorway operation and maintenance concession in the CEE region Introduction of direct tolling in a relatively hostile social environment was managed relatively smoothly Internationally experienced motorway operator is engaged and motivated to improve quality of services
Weaknesses	Poorly regulated concession granting and deficient procurement procedure led to unnecessary delays and cost increases Changing the conditions of tolling by the government was interpreted by the private sector as a materially adverse action, causing unsettled disputes and mutual mistrust among the PPP partners

Background

The A4 motorway is part of the international main road E40: Ostende (Netherlands) - Köln - Erfurt (Germany) - Wrocław - Katowice - Kraków (Poland) – Kiiw (Ukraine), lying on the Pan European Transport Corridor III and on the EU TEN-T network.

Based on the Toll Motorway Act approved by the Seim (Parliament) in 1994, the Motorways Construction and Exploitation Agency (ABiEA) issued an invitation to tender in mid-1995 as a first step to implement an ambitious toll motorway program in Poland. The aim of the tender was to select a special purpose company to construct the Katowice – Kraków section of the A4 motorway, adapt it for tolling, and arrange for operation and maintenance, based on a concession agreement.

In 1996 – 1997, the motorway was rehabilitated using a sovereign loan provided by EBRD, but the work was limited mainly to the repair of the pavement and five select bridges. These works were executed on behalf of the General Directorate of Roads as public investment. Upon completion of the repair works, the motorway section was handed over to the selected concessionaire for operation, tolling and maintenance. The concession for tolling, operation and exploitation of the A4 motorway was awarded by the Minister of Transport and Maritime Economy finally to a single bidder, Stalexport S.A. on March 15, 1997.

Following negotiations related to the allocation of risks and securing the financing, the concession agreement was signed on September 19, 1997. The agreement described in detail the Concessionaire's rights and duties within the project. According to the Agreement, the project will be implemented in phases. The First Phase of the construction was to be executed at Stalexport's own cost and risk using its own finances and a bank loan. The First Phase was completed and the toll collection commenced on April 3, 2000.

Project description

The already existing motorway section and five bridges, and some engineering structures, were rehabilitated and extended with a new short stretch linking it to Katowice inner road network by the General Directorate of Roads, using a PLN 225 million (€ 60 million) sovereign loan provided by EBRD. While this debt is serviced by the State Treasury, according to the Concession Agreement, the amount shall be repaid by the Concessionaire.

First Phase (1996-2003)

- Construction of toll collection system
- Toll Station in Brzęczkowice
- Toll Station in Balice
- Building of Motorway Maintenance Center in Brzęczkowice
- Construction of telecommunication and traffic management and emergency call system
- Implementation of a traffic safety monitoring system
- Closing of "Jeleń" interchange

The cost of the First Phase was PLN 193 million (€ 50 million).

Second Phase (2003-2008)

Upgrade the motorway to comply with international standards and start activities connected with the environment protection, including:

- Renovation of 53 bridges
- Renovation of pavement on the whole 61 km section
- Reconstruction of 3 motorway junctions
- Construction of noise protection walls
- Construction of sewage treatment system
- Construction of passages for animals
- Construction of toll stations at some junctions
- Construction of rest areas

The cost of the Second Phase was estimated to be PLN 320 million (€ 84 million). Phase 2A of the investment started in 2003. Renovation of 56 bridges and viaducts, repair and rehabilitation of 61 kilometers of pavement, construction of crossovers and noise screens were planned.

PPP features

Stalexport Autostrada Małopolska S.A. (SAM), the concessionaire of the A4 motorway Katowice-Krakow tolled section was established in 1998 as a special purpose vehicle. It was established by the concessionaire, Stalexport S.A., which contributed 100% of the share capital. The concession period was 30 years starting from 1997. Operation, toll collection and maintenance was contracted in April 2000 for a 27-year period to Stalexport Transroute Autostrada (STA) established as a joint venture company by Stalexport Autostrada Małopolska (SAM) and Egis Projects SA (France).

Tolls charged in an open toll collection system at Balice and Myslowice-Brzęczkowice are (at each station): PLN 6.50 for motorbikes and cars with two axles; PLN 12.50 cars with trailers or vans, vehicles with three axles and twin wheels and PLN 24.50 for vehicles with more than three axles, vehicles with three axles and trailers. These vehicle classes were different from those used on A2 motorway by the concessionaire AWSA for similar purposes.

Experience to date

In October 2005, SAM S.A. concluded with the Ministry of Transport a new Concession Agreement, which allowed the concessionaire to reach financial closure by securing the necessary funding (a long-term loan). A Loan Agreement was signed with a consortium of four banks (Westdeutsche Landesbank, DePfa Group, Kreditanstalt für Wiederaufbau, BPH S.A) in the amount of PLN 380 million (approximately € 100 million) in December 2005. The tenor of the loan was 15 years and it was pledged to finance the Second Phase, i.e. the investment program started in 2003.

Following the introduction of the vignette system on the Polish national road network, the motorway toll collection from vehicles covered by the charge cards (i.e. vehicles with permissible total weight exceeding 3.5 tons, classified into toll class 2) was abolished in November 2006. Although compensation was promised for up to 70% of the lost toll revenue, a dispute emerged between the concessionaire and the government concerning the amount of compensation.

The traffic on the motorway was increasing steadily: it was AADT 17,000 vehicles per day in 2001 and exceeded AADT 21,000 vehicles per day in 2005.**Lessons learned**

- Institutional instability, unsettled disputes and growing mistrust among partners seriously hamper proper implementation of agreements under a PPP scheme. Delays and cost increases are likely to arise and seriously undermine the success of the PPP project;
- Having an internationally experienced motorway operator company to organize effective public relations and improve quality of services helped the introduction and acceptance of the first direct motorway tolling in a relatively hostile social and economic environment;
- Change of policy during the operational phase of the concession is detrimental to PPP success if the change was not anticipated and properly planned for; or the risk appropriately mitigated to the satisfaction of all concerned parties.

Case Study 10: Horgos-Pozega Toll Motorway Project - SERBIA

Case Study/Country	Horgos-Pozega Toll Motorway Concession Project, Serbia
Value/Cost of the Project	(Construction cost €1,100 million without VAT) Estimated costs were € 880 mil. according to studies from previous years
Rationale/objectives of the PPP scheme	Financing and construction of the left carriageway of 106 km Horgos-Novi Sad motorway, 140 km Belgrade-Pozega motorway and take-over of 68 km Novi Sad-Belgrade motorway for tolled operation and maintenance under a concession scheme
PPP Procurement/Main Dates	Open competitive tender (4 bids), 2005-2008
PPP Partners/Actors	FCC Construcción S.A. (Spain) and Alpine Mayreder Bau GmbH (Austria)
Advisors of the Public Partner	Louis Berger (F)
Local Companies/Banks	Preferred subcontractors
PPP/Concession Period	25 years
Financial Structure	In-kind capital contribution, equity/debt ratio unknown, since deadline for financial closing is March 2008
Agreement between Parties	Concession contract; 30. March 2007
Agreements of Private Party	Contract lapsed at the end of 2008
Risk Allocation	Construction, financial and availability risk is borne by concessionaire; commercial risk is shared, legal risk is borne by grantor
Institutional/Managerial Structure	
Users Contribution/Tariff setting	Tolls collected by the concessionaire; tariffs set by the State
Construction	Was to be 2008-2012, main contractor to be selected/contracted out by concessionaire
Strengths	Competitive procurement carried out in full compliance with IFI requirements; Preparatory works included cost-benefit analysis checked with the World Bank "Highway PPP toolkit" model software; EBRD co-financing of a section was to be incorporated into the concession project upon completion as an in-kind increasing the probability of IFI co-financing.
Weaknesses	Large size and complicated structure of the project plus its risk profile required a sophisticated financial package to be put together within a relatively short time, ultimately causing project failure; There were also internal political disputes with Vojvodina Province increasing political risk; and New Government cancelled the project.

Background

The route from Horgos (on the Hungarian border) to Belgrade via Novi Sad is part of the Pan-European Transport Corridor X connecting Serbia, Montenegro, Hungary, Croatia, FYR Macedonia, Bulgaria, Austria and Greece. The 65-km existing toll road between Novi Sad and Belgrade is the most heavily trafficked road in Serbia. The Belgrade - Pozega section is of vital importance to connect Serbia to Montenegro and to Bosnia and Herzegovina.

The state has been saturated with credit obligations and limited by the IMF in obtaining new sovereign loans and the withdrawal of installments based on the already signed contracts, so further ambitious road projects must be financed from other sources – through concessions or public-private partnership. As a logical consequence, the Serbian government announced an international tender for the Horgos-Pozega Tolloed Motorway Project in 2005. The project id composed from three Lots (see below). The Bids were presented in September 2006 and, in October of that year, the Serbian Capital Investment Ministry declared Fomento de Construcciones y Contratas SA – FCC (Spain) and Alpine Mayreder Bau (Austria) as the winner.

The financing model used by the evaluation committee was done with a high level of expertise, checked with the World Bank PPP toolkit for highways. All three sections encompassed by the concession model had a reasonable internal rate of return above 10-12 percent. The Concession Contract was signed on March 30, 2007, while the Concession Company was established as of May 30, 2007.

That the concessionaire building the Belgrade-Požega section was going to collect tolls on the highly profitable stretch through Vojvodina was arousing among the province's officials. They warned in mid-September of 2006, prior to the opening of the bids that the concession should not be issued, since it was the citizens of Vojvodina that paid for its construction. They also reminded that the Subotica-Belgrade stretch was originally financed from foreign loans between 1970 and 1988, and that the province's administration has already paid those loans back in their entirety. It was estimated that the concessionaire would earn around € 450 million in the 25-year concession period by collecting tolls in Vojvodina, as the traffic volume on this road section was estimated to be AADT 19,000 vehicles per day. Therefore the assembly of the province expressed the opinion that the concession is not in the interest of Vojvodina citizens, and that the money acquired in this way should be spent on the Banat main route and Fruška Gora bypass. Although the procurement procedure was continued, the internal political debate did weaken the risk profile and thus the cost of implementation of the entire project.

Project description

The 323 km long motorway project is divided into three lots as follows:

- Lot 1 Belgrade (Ostruznica interchange) – Pozega: financing, design, construction, operation and maintenance E-763 motorway (148 km)
- Lot 2 Horgos – Novi Sad: financing, design, construction, operation and maintenance of E-75 motorway (107 km):
 1. Financing, design, construction, operation (including toll collection) and maintenance of the left carriageway
 2. Operation and maintenance of the right carriageway

- Lot 3 Novi Sad –Belgrade (Batajnica brick factory): operation and maintenance of E-75 motorway (68 km):
 1. Operation (including toll collection) by the end of 2008 (completion of works financed by IFI expected in that year)
 2. Operation and maintenance from 2009.

The concessionaire was to construct or complete construction of all motorway sections by the end of 2012. The estimated total cost of the project was around € 1,200 million. Of that, the construction cost was € 800 million, including the construction cost allocated preliminarily to Lot 2, (i.e. around € 120 million).

PPP Features

The concession period was going to be 25 years, beginning on the first day after the delivery for operation of the constructed highway section Lot 3 Novi Sad – Belgrade.

The debt/equity ratio was assumed to be 2:1, unless the concessionaire could achieve a higher ratio. Financial close had to be reached by end of March 2008. It was estimated that the in-kind capital contribution (existing sections) and expected toll revenues would make the project financially viable and sustainable.

Construction and availability risks were borne by the concessionaire, while commercial/traffic risk was shared between public and private partners. Land acquisition was made by the public party, compensated however by the concessionaire; the payment mechanism for that purpose was yet to be defined. An independent engineer was to be appointed by the Parties to supervise the implementation of the Project.

The concessionaire would collect tolls on completed sections upon their take-over for operation. Tariffs would be set, however, by the Serbian State. There have been recommendations to discontinue the current practice of charging foreign vehicles higher rates than domestic ones. The toll rates (as of late 2007) were CSD 200, 300, 600 and 1,200 for Class I, II, II and IV domestic vehicles respectively and CSD 400 (€5), 650(€8), 1050(€13), and 2020(€25), for the corresponding foreign vehicles respectively on the Belgrade-Novı Sad section (68 km). The toll rates (as of late 2007) were CSD 280, 420, 840 and 1,680 for Class I, II, II and IV domestic vehicles respectively and CSD 400 (€5), 650(€8), 1,210(€15), and 2670(€33), for the corresponding foreign vehicles respectively on the Novi Sad section-Subotica (90 km). The Concession Contract also contained appropriate clauses for securitization, insurance, dispute settlements and termination.

Experience to Date

By December 31, 2008, it had become clear that the project would be terminated. The consortium was supposed to start construction on April 1, 2009, but failed to provide a bank guarantee for the project after Deutsche Bank suspended projects in Serbia over political instability in the country. The contract lapsed at the end of December 2008, and soon after that the concessionaire and the Government started discussions on an appropriate level of compensation.

Lessons Learned

- A well-prepared and managed procurement procedure may lead to a well structured, although slightly oversized project, but the appropriate public support (in-kind capital contribution, toll revenues pledged to the concessionaire among others) seemed sufficient to make the chosen PPP scheme work.
- A good co-operation among different governmental entities is needed to assist the private partner in raising the necessary funding sources to reach financial close to help construction works on schedule.
- Stakeholder consultation is an important part of any PPP process. As PPPs are sensitive undertakings, any potential impediments should be mitigated by reaching a satisfactory compromise among the aggrieved parties within the political and legal context of a country.
- When setting up PPP schemes in a challenging environment, especially for the first time, it is important that the public sector has people with the proper skills and is supported by experienced financial and legal advisers. -

Case Study 11: Belgrade Airport Cargo Center Project – SERBIA

Case Study/Country	Belgrade Airport Cargo and Logistic Center, Nikola Tesla Airport, Belgrade, Serbia
Value/Cost of the Project	€ 60 million
Rationale/objectives of the PPP scheme	Establish a SPV as a JV to finance, build and operate a Cargo and Logistic Centre at Nikola Tesla Airport Belgrade
PPP Procurement/Main Dates	Two-stage open international tender 2004-2006
PPP Partners/Actors	DynCorp International LCC (USA); Belgrade Airport plc, Ministry of Capital Investment
Advisors involved	Squire Sanders & Dempsey (USA) Feasibility Study, 2003
Local Companies/Banks	
PPP/Concession Period	20 years
Financial Structure	JV share capital 30%/70% public/private; mainly debt financing
Agreement between Parties	Agreement on strategic partnership establishing a joint venture company
Agreements of Private Party	
Risk Allocation	Construction risk and bulk of commercial risk intended to be allocated to the private partner
Institutional/Managerial Structure	
Users Contribution/Tariff setting	Market fees paid by customers for cargo and logistic services rendered
Strengths	Competitive procurement led to the selection of experienced private partner Public sector negotiators discovered the need to engage experienced legal and financial advisors to make a PPP work Experience gained should help to restructure the project and complete next procurement procedure successfully
Weaknesses	There has been no in-depth cost-benefit analysis and financial modeling undertaken on the project, making it almost impossible to negotiate a best value package and define revenue stream making it viable General political and economic situation of Serbia, lack of experience with PPPs made it extremely difficult to structure the projects Complaints about the procurement process have led to delays thus increasing project risks.

Background

Belgrade "Nikola Tesla" Airport is the largest airport in Serbia handling around 90% of domestic passenger traffic and 90% of cargo traffic. Cargo terminal for domestic and international traffic of Belgrade "Nikola Tesla" Airport has a storage area of 5500 m² and an annex of 2500 m² for accommodation of operative services, forwarding agencies and customs.

Technical and technological level of equipment and available space enable handling of approximately 35 thousand tons of goods and material per year, with prospects for increase to 70 thousand tons. In 2005 the airport generated a modest total of 8,000 tons of cargo, but since then volumes have been steadily growing, with a massive increase is expected in the future.

Belgrade Airport plc. is owned by the Government of the Republic of Serbia. Its managing board is appointed by the government, and all investment and other crucial decisions have to be approved by the government or by Parliament. Thanks to efficient management, the productivity of the activities has been substantially improved during the recent years. The privatization of Belgrade Airport is envisioned to occur in the next few years.

In March 2004, the U.S. Trade and Development Agency (TDA) awarded a grant of USD 0.8 million to the Ministry of Capital Investment of Serbia to partially fund the completion of a feasibility study (prepared by Squire Sanders & Dempsey, USA) on the redevelopment and expansion of the Belgrade Airport. The feasibility study looked at three areas: the opportunity for an air cargo terminal and logistics centre, retail concessions, and a maintenance centre.

Based on findings from that study, the Ministry and Belgrade Airport public company decided to launch a two-stage open international tender, aiming to find a private partner to establish a special purpose company as a joint venture to finance, build and operate a new cargo terminal (of 6,000 square meters) and a logistics center.

In May 2004, the invitation to tender was issued and the second stage started with two short-listed bidders in December 2004. By early February of 2005, the tender for selecting a joint venture partner was completed. In competition with the consortium of an Israeli investor Engel Europe Ltd and the Swiss company Swissport, the U.S. company DynCorp International of Falls Church (Texas) won the tender.

In March 2005, the Swiss-Israeli company Swissport and Engel Europe Ltd. protested against the outcome of the tender. The formal complaint put a temporary hold on the project while the issues were being investigated. In November 2006, the American company DynCorp International⁵² canceled negotiations to build the cargo and logistics center at Belgrade Airport, because of a change in the company's top management and (unspecified) requests from the Belgrade Airport plc. that it found unacceptable.

In case of withdrawal of the winner, Belgrade Airport plc could have started negotiations with the second best bidder. However, the unresolved litigation initiated by that bidder made it impossible. Belgrade Airport plc plans instead to seek a new partner to develop the cargo facilities. The government made a decision in summer 2007 encouraging Belgrade Airport plc to launch a new tender procedure.

⁵² The U.S. company primarily engaged in strategic and intelligence jobs in war regions was under serious attack for misconduct at that time

As the representatives of Belgrade's airport stated, the new terms and conditions for tender announcement were to be defined in cooperation with the Advisory Group of the Ministry of Infrastructure. "Nikola Tesla" Airport's position will be much more favorable because of increased productivity, quality and more efficient working methods. The negotiating position of Belgrade Airport has significantly improved compared to three years before when the previous open competition tender was launched. Since then, the annual profit of the Airport "Nikola Tesla" has significantly increased.

Project description

The project consisted of building a cargo and logistics center sized 207,000 square meters in accordance with the approved Master Plan of the "Nikola Tesla" Airport, Belgrade. The cargo hub was expected to process 40,000 tons of cargo in its first year of operation and 90,000 tons by its fourth year of operation, and employ about 5,000 people.

PPP Features

According to the Draft Agreement elaborated in 2005, share capital of the private partner in the joint venture company would have been 70%, while that of Belgrade Airport plc. would have amounted to 30%. Shares would not be allowed to be sold for seven years following signing of the joint venture agreement on strategic partnership. It was expected that exclusive rights of operation and maintenance of the cargo and logistics center were to be awarded to the special purpose vehicle to be formed as a joint venture for a period of 20-25 years. Revenues generated by the air cargo handling at the Belgrade Nikola Tesla Airport were intended to be pledged to the joint venture company.

Experience to Date

The attempt of the public authorities to develop and operate the Belgrade Airport cargo and logistic center in the framework of a PPP (joint venture) has been put on hold. Nevertheless, the experience gained by the government officials and airport managers during the procurement – provided their involvement is maintained – may lead to a shorter and more efficient procedure with mutually satisfactory outcome, in case the competitive tender is soon relaunched.

Lessons Learned

- A feasibility study is not sufficient, only in-depth cost-benefit analysis and financial modeling would provide a sufficiently solid base to launch an international tender for a PPP project.
- The intentions and conditions of the public partner should be clearly set in the tender documentation, which should preferably include a model contract serving as a base for negotiations.
- The procurement procedure should be carefully managed (e.g. using appropriate bid bonds), and sufficiently transparent to avoid conflicts of interest and eventual claims against decisions taken, aiming to avoid unjustified delays, risk increases
- Well-experienced legal and financial advisors should be selected to support and defend the position of the less experienced public partner during negotiations over a complicated PPP transaction.
- Co-operation between public authorities has to be improved to facilitate the agreement of strategic partnership between a state-owned company and a foreign private company under a PPP scheme.

ANNEX B: IMPACT OF THE FINANCIAL CRISIS

While initial signs are discouraging, the full force of the global financial crisis is yet to be felt on private investment in the CEE/SEE region. Despite the gloomy outlook of the world economy, the immediate effect of the crisis has been to delay on-going projects and to postpone plans for new developments. For the ECA region as a whole, the rising trend in private participation in infrastructure is reversing. A World Bank survey⁵³ from Aug 2008-Jan 2009 shows that several PPP projects in ECA are delayed or at risk of being delayed if financing is not put in place in the coming months. These projects represent US\$25.8bn or 49% of current commitments in the region (all sectors). Cancellations have not occurred on a large scale as many governments and investors are still waiting to see how the downturn develops. In ECA, only about 1.2% of current investment commitments were cancelled. Projects potentially cancelled amounted to approximately 6.7%. If the global economy rebounds in the course of 2009, as some optimists expect, many of the delayed projects would probably be continued according to existing plans. In the worst case, if the recession deepens without the prospect of a quick turn-around, the current delays could lead to widespread cancellations and renegotiations.

The macroeconomic resilience of recent years provides little protection against global liquidity shortage and slowing growth. Even when the crisis did not originate in CEE/SEE countries, they are feeling the reverberations with declining exports and retreating foreign capital. In the largest countries of the ECA region, such as Russia, Ukraine and Kazakhstan, weakening economic growth from falling commodity prices (e.g. oil and steel) is impacting the rest of the region through lower trade and remittance flows. From a global perspective, the capital outflows from the low- and middle-income countries of ECA to high-income countries, such as the United States, are exerting severe pressure on the currencies of the emerging economies. Depreciating exchange rates are increasing the debt servicing requirements for both public and private sector actors with exposure to foreign-denominated debt. For PPPs, falling local currencies reduce the scope for significant foreign borrowing, which is often required for long-term projects.

The squeeze on Government budgets is limiting public investment options. With increasing unemployment and falling corporate earnings, Governments are also facing declining tax receipts, while demands are increasing for welfare spending and public fiscal stimulus. The combined impact is that Governments are forced to cut their spending across the budget. For transport infrastructure projects, this means closer scrutiny of existing plans to reallocate the more limited public funds. Simply replacing budgeted tax revenues with deficit spending to provide fiscal stimulus is infeasible. Borrowing costs for CEE/SEE countries and other emerging economies are rising on the global capital markets. Furthermore, most countries have limited absorption and implementation capacity for infrastructure construction stimulus on a large, expedited scale.

Private investors are becoming more risk-averse with scarcer capital resources. The deterioration in external financing conditions has considerably weakened investor confidence in the potential of many existing and planned PPP projects. The practical effect is that private debt financing is only available at higher margins for lower maturities and amounts. With accumulating losses from failing investments, many commercial banks are more pre-occupied with managing their own finances than adding on new commitments. Private equity has similarly become more costly for PPPs in the CEE/SEE region as the heightened risk perception of infrastructure projects feeds into a higher required return on investment.

⁵³ Izaguirre, Ada Karina, "Assessment of the impact of the crisis on new PPI projects – Update 2", Note produced by the Finance, Economic and Urban Development unit of the World Bank (March 5, 2009), available at <http://ppi.worldbank.org/>

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