

# Mobilizing Private Finance for Local Infrastructure in Europe and Central Asia

*An Alternative Public Private Partnership  
Framework*

*Michel Noel*  
*W. Jan Brzeski*



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# Acronyms and Abbreviations

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\$	United States Dollars
€	Euros
COTAM	Contract Transparency Assurance and Monitoring
ECA	Europe and Central Asia
EU	European Union
IFI	International Financial Institution
LIIT	Local Infrastructure Investment Trust
OBA	Output-Based Aid
OECD	Organization for Economic Co-operation and Development
PPI	Private Participation in Infrastructure
PPP	Public-Private Partnership
PRG	Partial Risk Guarantee
PRI	Partial Risk Insurance
UK	United Kingdom



# Executive Summary

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In recent years, the countries of Europe and Central Asia (ECA) have experienced a marked decline in investments by international private operators/investors in local infrastructure—much in line with the trend observed in other emerging markets. This decline has been particularly significant in the local water and energy sectors. Private equity funds have generally not stepped in to fill the growing investment gap and, in the cases in which they have, they have tended to concentrate on a small number of large transactions, in particular in the telecom sector at the national level.

The lack of sufficient public and private sector investments in local infrastructure in ECA is unsustainable for central and local governments given the peculiar nature of local utility services. In a political economic perspective, these are considered “life supporting services” and every government has to treat their provision as imperative. This political necessity means that there is a prevalent need to identify solutions and develop approaches that can improve the quality and efficiency of local infrastructure services for the population at large.

In light of the increasingly tight fiscal constraints faced by governments across ECA, there is a strong need to develop alternative Public-Private Partnership (PPP) frameworks that could attract private investors to the local infrastructure sector. This is particularly the case in the EU accession countries<sup>1</sup> which are under strong pressure to undertake massive investments in local infrastructure in order to meet EU environmental and other directives; in particular in the water, sanitation and energy sectors. Furthermore, other countries in ECA need to cope with the problem of protracted underinvestment, which has led to a steady deterioration in the efficiency and quality of basic communal services, in particular in water and district heating. This is exacerbated by the inherited dispersion of urban spatial structures without efficient land markets, which resulted in incomplete and overextended utility transmission networks.

The growing challenge is to identify and implement adequate financing frameworks and modalities of public support that would be sufficient to attract participation of private investors in local infrastructure<sup>2</sup> PPPs without increasing the risk of moral hazard. The objective of this paper is to explore possible elements of an alternative PPP framework that could help governments in ECA to meet this challenge. The paper identifies key impediments to the development of PPPs in local infrastructure in ECA and discusses the elements of the proposed PPP framework.

The analysis of investor’s past experiences and of their attitudes toward future Private Participation in Infrastructure (PPI) in ECA reveals four main impediments: (i) inadequate cash flow (level, variability); (ii) inadequate contractual framework (transparency, enforcement and dispute resolution); (iii) lack of policy risk mitigation instruments; and (iv) limited exit possibilities for first-round equity investors. While these impediments may be addressed through a broad range of policy/institutional/financial instruments, the analysis identifies a number of instruments which are on the critical path to alleviate these impediments.

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1. Eight of them have already become EU members as of May 1, 2004: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia.

2. Local infrastructure is focused on supporting provision of communal services typically at the level of town, city, or metropolitan urban area and/or county sub-regional level.

A framework for foreign exchange risk allocation is a prerequisite for sustainable PPPs with the participation of foreign investors. This is demonstrated by recent experiences in a number of countries, where unconstrained government guarantees for dollar returns in local infrastructure PPPs have resulted in large, ongoing fiscal liabilities for the government. By contrast, the need for such a framework appears low in the EU accession countries, although the process of convergence to the Euro-zone is not linear.

To attract existing or new first-round private equity funds to invest in local infrastructure transactions, a new class of second-round local infrastructure investment trusts would need to be developed in order to open up exit opportunities for the first-round investors facing narrow and shallow domestic capital markets. This is the first instrument/component of the proposed alternative PPP framework. First-round private equity funds would be the prime motor for the identification of PPP transactions and the development of the project pipeline. While the first-round funds would focus on turning around local infrastructure companies and would exit over a four- to five-year period, second-round local infrastructure investment trusts would buy equity stakes from the first-round funds and would hold their stake for the long-term. These could be mixed funds investing in listed securities in a particular country or in the region and in unlisted securities of local infrastructure companies purchased from the first-round funds. Local infrastructure investment trusts would be funded by selling shares and issuing bonds to domestic and international institutional investors including pension funds, insurance companies and mutual funds (fund-of-funds).

To alleviate sub-sovereign policy risks faced by first and second-round funds, a second instrument/component of the proposed PPP framework would consist of sub-sovereign breach-of-contract insurance or guarantee facilities. Depending on the policy risk profile of various categories of sub-sovereign (local) authorities, such facilities could be structured without sovereign counter-guarantee (medium policy risk) or with sovereign counter-guarantee (high policy risk). Access to these facilities would be governed by detailed criteria established under an accreditation system.

As contract negotiations take place between funds and local authorities, fund managers will have a keen interest in ensuring the socioeconomic feasibility and sustainability of the required transition to cost-recovery tariff schedules. While the efficiency gains extracted from the turnaround of local infrastructure companies by the first-round funds will exert a downward pressure on required tariff increases over time, the prevalence of tariffs at well-below-cost levels in many countries of the region means that the transition to the cost recovery tariffs will often require steep tariff increases up front, leading to access and affordability problems for low-income households. This problem would be alleviated through a third instrument/component of the proposed PPP framework, i.e. output-based subsidy schemes (OBSS) that would be designed to smooth the impact of the transition to cost-recovery tariffs for targeted categories of households.

Finally, to ensure transparency and sustainability of contracts between the first- and the second-round funds and local authorities, the proposed PPP framework would be supported by a fourth instrument/component, that is, a contract transparency and monitoring system (COTAM). Under such a system, a neutral third party would participate in contract negotiations between the fund with its buy-side advisors and the local authority with its sell-side advisors. This third party would not be a signatory to the contract, but its objective would be to maximize contract transparency by bringing issues to the negotiating table

based on international best practice and by eliminating issues that would otherwise be dealt with informally, such as essential contract elements that the parties might choose to ignore or abnormally low penalties for non-performance by either party.

Although the various components of the PPP framework are ultimately meant to work in synergy, the implementation strategy in a given country should be designed flexibly, taking into account the specific macroeconomic, fiscal, financial, institutional, and poverty incidence characteristics of each country.

To this end, PPP framework implementation would be structured around a programmatic approach. Following an initial PPI assessment, a broad agreement would be achieved with the Government on the main dimensions of the alternative PPP framework in the country and on the range of instruments that could be deployed by the World Bank Group to support its implementation. The agreed components of the program would then be implemented with the support of specific projects, each focusing on one specific instrument.

The Local Infrastructure Investment Trust (LIIT) could be supported by IFC through equity, quasi-equity and/or debt. MIGA could establish a policy risk insurance (PRI) facility covering sub-sovereign breach of contract risk. In the case of sub-sovereigns with middle policy risk, IBRD could provide a partial risk guarantee (PRG) facility to cover sub-sovereign breach of contract risk in the case of sub-sovereigns with high policy risk. The output-based subsidy (OBS) scheme could be financed through an IBRD budget loan on a declining basis. Finally, the implementation of the contract transparency and monitoring system (COTAM) could be supported through a technical assistance loan from IBRD.

The programmatic approach would be initiated through a PPI assessment. The PPI assessment would take as a point of departure an in-depth survey of investors' past experiences and expectations regarding PPI in the country. The survey would encompass traditional operators/investors, private equity investors, and institutional investors (insurance companies, pension funds, and mutual funds), both domestic and international. Based on the results of the investor survey, the assessment would identify the key impediments to private investor participation in local infrastructure transactions in the country, and would identify the instruments that are on the critical path to remove these impediments within the particular macroeconomic, fiscal, contract enforcement/dispute resolution framework, institutional and poverty incidence characteristics of the country. Based on this analysis, the PPI assessment would propose a strategy for the development of the alternative PPP framework in the country.

Following up on the PPI assessment, the Government would establish a coordination unit to manage the development and monitoring of the various components of the program. A range of public and private entities would implement each program component. Private sponsors and fund managers would implement the LIIT, with possible minority participation by the Government. The PRI/PRG would be implemented by the Ministry of Finance. The OBS schemes would be implemented by Technical Ministries under the guidance of the Ministry of Finance. Finally, the COTAM would be implemented by an independent entity with representation from various PPP stakeholders.



# Key Impediments to Private Participation in Infrastructure in ECA

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## Evolution of Private Participation in Infrastructure: Global Trends

Historically the financing of infrastructure projects in developing countries relied heavily on public finance. In the 1990s, private participation in infrastructure (PPI) took off from \$18.1 billion in 1990 to a peak of \$127 billion in 1997. In subsequent years however, PPI declined significantly down to \$47.4 billion in 2002, when it was back at the 1994 level (Figure 1.1).

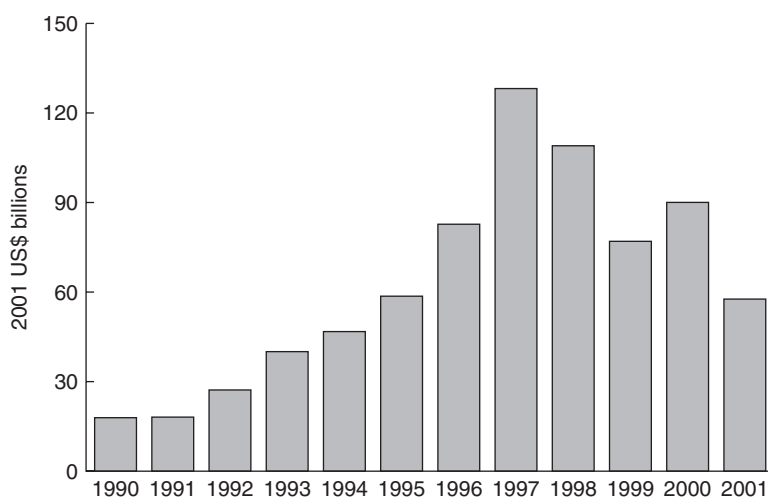
The decline in PPI in the 1998–2002 period was mainly driven by a sharp contraction in new acquisitions of government assets by investors. In 2002, major acquisitions of government assets were limited to IPOs of a mobile operator in China and of two natural gas transportation companies in the Czech and Slovak Republics. The remaining PPI transactions were for the expansion of existing facilities.

The role of equity in PPI varies significantly based on the type of transaction. As shown in Table 1.1 in the case of selected water and sanitation projects, the share of equity in PPI ranges from 15 to 50 percent in BOOs/BOTs and from 25 to 40 percent in concessions, reaching 75 percent in the case of one divestiture.

Operators/investors traditionally provided the main source of equity for infrastructure transactions at the local level in developing countries in the past years. Private equity funds focused mainly on large infrastructure transactions at the national level, especially in the telecom sector, with limited exposure to local infrastructure transactions.



**Figure 1.1. Annual Investment in Infrastructure Projects with Private Participation in Developing Countries (1990–2001)**



Source: Galaxy Fund, Presentation at the Conference CDC-KFW—Berlin, March, 22, 2004, pan-European review of the role of public financial institutions and public private partnerships carried out by Groupe Caisse des Depots and by the Galaxy Fund.

**Table 1.1. Debt/Equity Ratio for Selected PPIs in Water and Sanitation Projects**

Project site, type and date	Project cost	Debt/Equity ratio
Malaysia Concession 1993	US\$2.4 bil. (US\$500 mil. first 2 years)	75/25
Buenos Aires, Argentina Concession 1993	US\$4 bil. (US\$300 mil. in first 2 years)	60/40
Izmit, Turkey BOT 1995	US\$800 mil.	85/15
Chihuahua, Mexico BOT 1994	US\$17 mil.	53/15/32*
Johor, Malaysia BOT 1992	US\$284 mil.	50/50
Sydney, Australia BOO	A\$230 mil.	80/20
England and Wales Full privatization 1989	US\$5.24 bil.	25/75

\*Debt/equity/grant.

Source: David Haarmeyer and Ashoka Mody, *Financing Water and Sanitation Projects—The Unique Risks*, The World Bank, Viewpoint Note No. 151, September 1998.

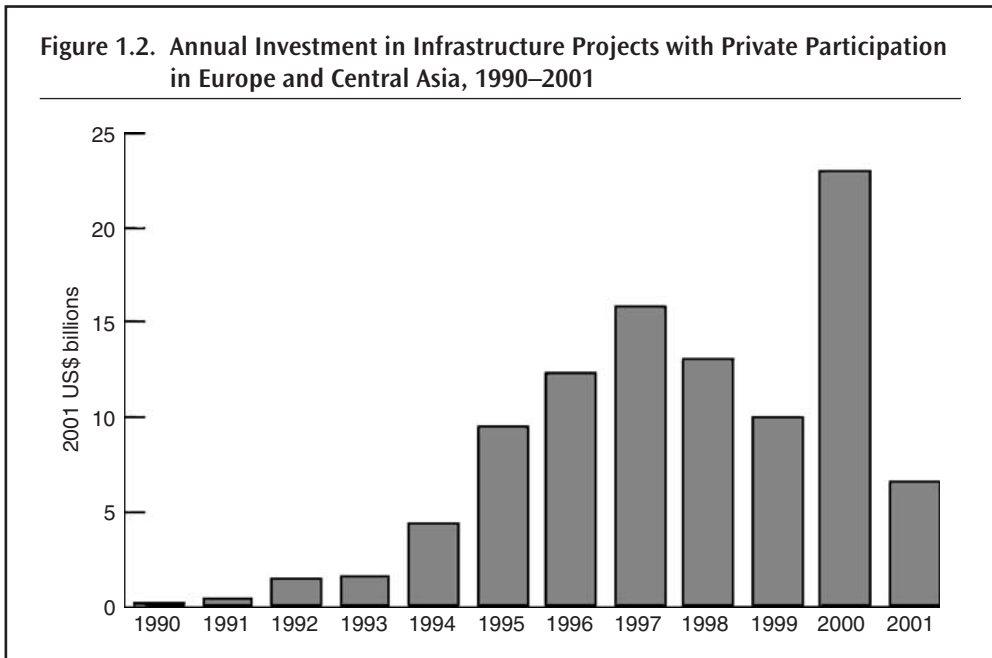
## Private Participation in Infrastructure in ECA: Recent Experiences

This section reviews recent trends in PPI in ECA from 1990 to the present, and further illustrates these trends in three selected ECA countries (Poland, Romania, and Turkey). In addition, the section presents the result of an informal survey of major sponsors/investors in PPP projects in these selected countries.

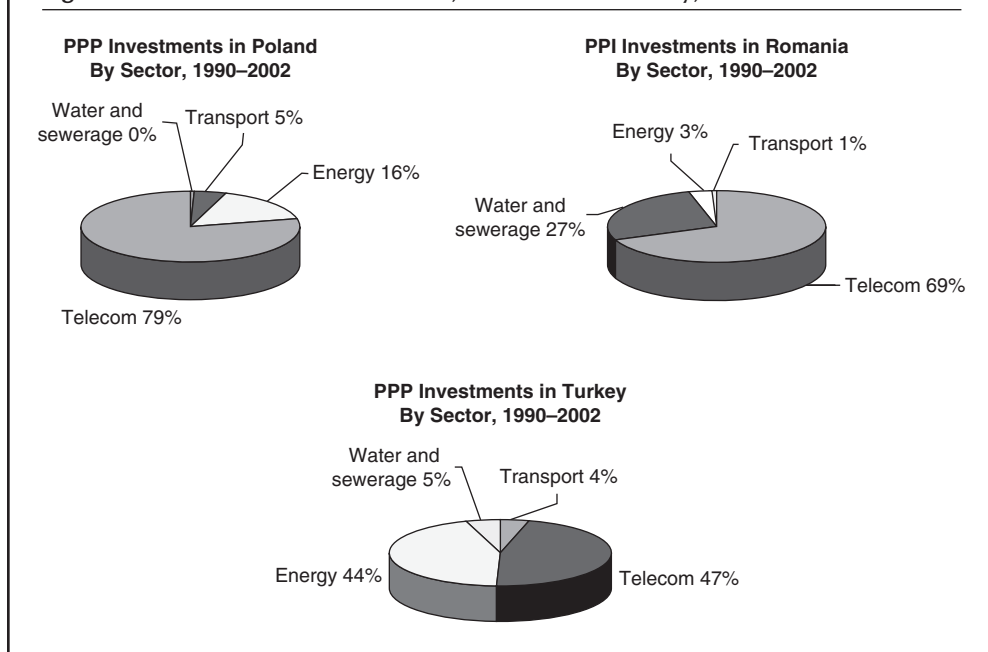
### *Recent Trends in PPI in ECA*

Ranking third among developing regions in private activity in infrastructure, the ECA Region attracted investment commitments of \$97 billion for infrastructure projects with private participation over the period between 1990 and 2001 (Izaguirre and others 2003). The PPI landscape was dominated by Latin America and the Caribbean, which in the wake of broad sectoral reforms, were responsible for 48 percent of cumulative investments over the period. In the latter part of the decade, however, investor interest began to shift toward East Africa and the Pacific. With EU accession on the horizon, and following financial crises in both Latin America and East Asia, ECA began to offer increasingly attractive investment opportunities. From 1990 onwards, investments in ECA showed consistent year-over-year growth exceeding \$10 billion annually in 1997 before tapering off somewhat through 1999. Investments surged again in 2000, approaching \$20 billion. Notwithstanding this surge, total investment in projects with private participation in ECA fell to below 1995 levels in 2001 (Figure 1.2).

Telecommunications and energy were the leading sectors in terms of overall investment in 2000; a fact which is consistent across all regions. Over the course of the decade, telecommunications accounted for 44 percent of cumulative investments, with energy



Source: World Bank PPI Project Database.

**Figure 1.3. PPI Investment in Poland, Romania and Turkey, 1990–2002**

commanding an additional 28 percent (Izaguirre and others 2003). The reversal in these sectors late in the decade contributed greatly to the decline in PPI in 200—a tendency which was also identified in each of the countries which are the focus of this study.

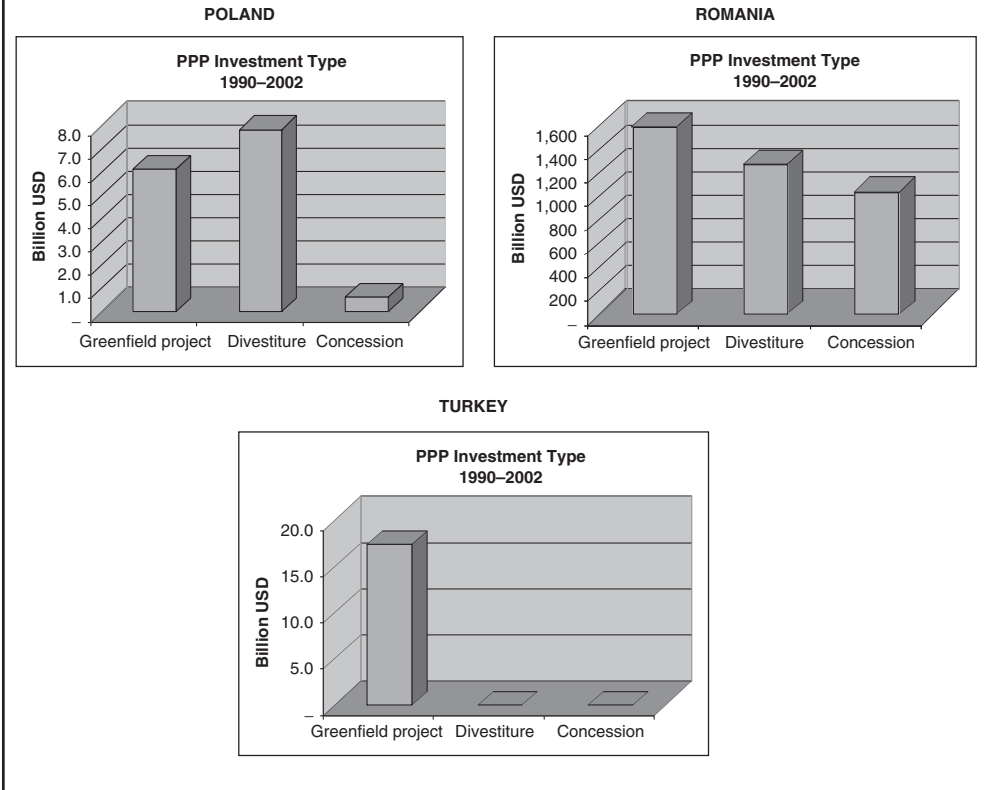
### *Recent Trends in PPI in Selected ECA Countries*

The following charts indicate investments, by sector and by investment type, for the period 1990–2002 in Poland, Romania and Turkey. Although telecommunications dominated the investment landscape over that period, in Poland, and more so in Turkey, the energy sector also attracted reasonable attention; representing 16 percent and 44 percent of total investments in these two countries over that period, respectively. Only in Romania, and to a lesser extent in Turkey, have investors looked to the water sector repeatedly.

In Poland, telecommunications represented the greatest share of PPP investments over the period 1990 to 2002 (79 percent of total investments). Energy received 16 percent, and transport only 5 percent. A similar distribution was represented in Turkey with telecom at 47 percent, energy at 44 percent, and with water and transport following with 5 percent and 4 percent, respectively. Meanwhile, the water sector commanded greater attention in Romania with 27 percent of monies invested, compared with 69 percent in telecom, and just 3 percent and 1 percent in energy and transport, respectively.

While greenfield projects are common in all countries, the investment type varies by country depending in large part on individual transactions and sectors of interest, the government's agenda, and the degree to which the legal and regulatory environment is supportive of foreign investments. In Poland, divestitures prevailed as the primary vehicle for investment

**Figure 1.4. PPL Investment Type in Poland, Romania and Turkey, 1990–2002**



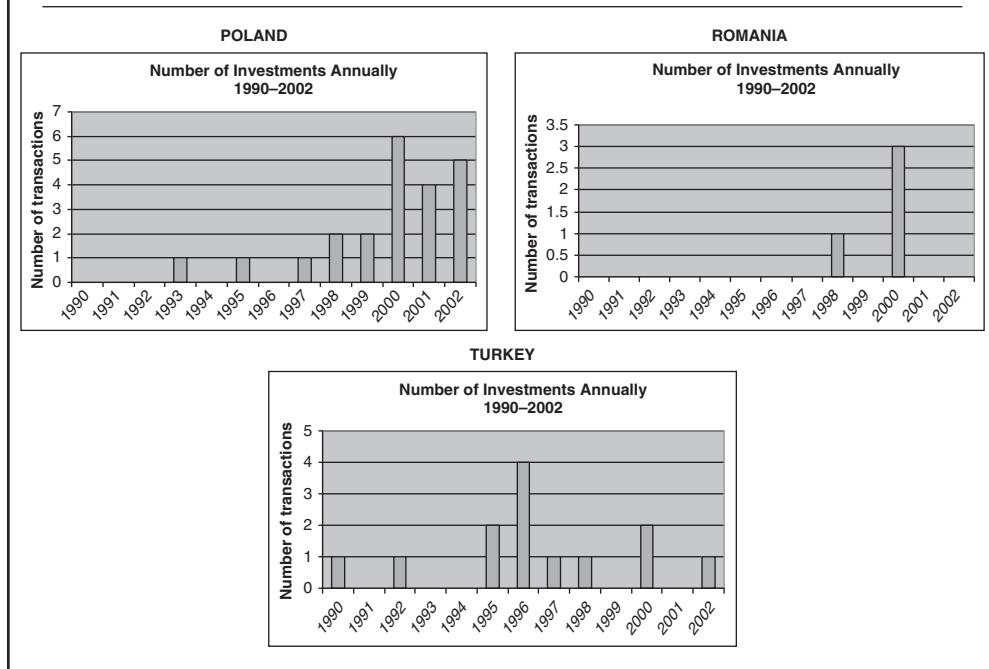
transactions, while no particular investment type was excluded for investments in Romania. In Turkey, public-private transactions almost always corresponded to greenfield investments.

In Poland, the investment scene was led by more than \$7.0 billion in divestitures, with more than \$5.0 billion invested through greenfield projects. Concessions, by comparison, were relatively infrequent, comprising less than \$1.0 billion of total PPP investments in the country over the period 1990 to 2002. In Romania, all investment types were well represented, with \$1.4 billion in greenfield projects, and just over \$1.0 billion and \$800 million in divestitures and concessions, respectively. Greenfield projects dominated PPP investments in Turkey with more than \$15.0 billion.

The following charts indicate the number of investments with private participation in Poland, Romania and Turkey in each year for the period 1990–2002. In Poland and Romania, PPI is more concentrated toward the latter part of the decade, with committed interest despite setbacks in early transactions. (Investor experiences are discussed in more detail later in this section.) The experience in Turkey is of a different nature as investor interest was tempered by a reversal of the government's private sector participation model in the late 1990s as well as heavy administrative barriers to entry and generally poor PPI experiences.

PPI investments peaked in Poland in 2000, with six investments transacted in that year. The number of investments fell to only four in 2001 but recovered in 2002, with five new investments recorded in that year. In Romania, one investment was recorded in 1998, with

**Figure 1.5. Number of Annual Investments in Poland, Romania and Turkey, 1990–2002**



investor optimism demonstrated through three new investments in 2000. The PPI landscape in Turkey has been uneven, beginning with two investments in 1995 and four in 1996 when the Government openly promoted private sector participation in infrastructure, but dropped to just one in each 1997 and 1998, given negative investor experiences with earlier transactions. Two new investments in 2000 demonstrated renewed promise, but the reversal of government stance on private sector participation in October 2001 dampened the scene. As such, despite progress in government reforms, only one new transaction was recorded in 2002.

### *Assessment by Investors of PPI Experiences in Selected ECA Countries*

Searching the PPI Database of the World Bank for the PPI projects during the period from 1998 to 2002 in the three selected countries across the energy, water and sewerage sectors, the Team identified a total of 26 PPI transactions (20 of which for energy, and the remaining 6 in the water and sewerage sector). These projects included the entire typology of private sector participation, that is, concession, greenfield projects, divestiture or management and lease contracts.

From the population of investors in these PPI transactions, the team identified investors for informal interviews on the basis of the following criteria:

- (i) the investment was substantial, that is, more than US\$5 million,
- (ii) the investor or the municipality had encountered setbacks or an unfavorable outcome, and
- (iii) the investor had been involved in a number of PPIs in ECA and other emerging markets.

Based on these criteria and on additional research conducted in infrastructure specialized news sources and data resources, the team identified four major sponsors for formal interviews. Although sponsor willingness to share views and information varied, the team was granted informal interviews with three sponsors during the period between September-December 2003.

The issues raised in the interviews are summarized below.

- **Actual tariff schedules generate insufficient returns**
  - Investors are unable to ensure cost recovery, related parent company debt servicing, and expected host country dividends, given the lower tariff schedules actually implemented due to political pressures.
  - Up-front agreements on return scenarios are needed, together with the understanding and involvement of the civil society organizations.
- **Essential contracts are often breached by local authorities**
  - Breach of tariff/return and power-purchase agreements has become more frequent, in an environment marked by weak contractual enforcement and arbitration procedures, (see below).
  - Sub-sovereign contractual partners often fail to deliver the agreed investment programs in terms of capital outlays and timing.
- **Transparency of relationship at the local level is often lacking**
  - Regulators are often not independent and face conflict-of-interest pressure, compromising their ability to regulate market competition and tariff adjustment.
  - Partnership with private sector requires clear local involvement and well-defined roles.
- **Local budgetary and political pressures create distortions detrimental to investors**
- **Investments expose investors to long-term commitments with constrained exit possibilities**

## Private Investor Attitudes toward Future PPI in the ECA Region

This section seeks to assess the attitudes of various investor classes versus future PPI in emerging markets in general and in the ECA region in particular. The review attempts to probe the attitudes of both strategic and financial investors: traditional investors (energy and water operator/investors), as well as private equity and institutional investors (insurance, pension, and mutual fund firms).

Given the amount of existing survey material available on PPI in emerging markets and given well-documented investor survey fatigue, the team decided not to implement a new formal survey for the purpose of this paper, but rather to rely on existing surveys of investors attitudes toward PPI in emerging markets, supplemented by team interviews with a focus group of investors in each investor category.

### *Key Findings of Existing Surveys*

To understand and incorporate the views of both strategic and financial investor interests, the survey evaluations conducted included those directed towards traditional operator/investors,

as well as those surveying private equity investors and professional money managers. As such, the review incorporates findings of the following surveys:

- IFC Survey of Private Power Investors (2003)<sup>3</sup>
- PriceWaterhouseCoopers Survey of Utility Leaders (2003)<sup>4</sup>
- Deloitte & Touche Survey of Private Equity Investors (2003)
- McKinsey Survey of Professional Investors (2002)<sup>5</sup>
- European International Contractors White Book on BOT and PPP (2003)<sup>6</sup>

*IFC Survey of Private Power Investors.* In May 2003, the IFC conducted a survey of private power investors in developing countries to gauge the interest held by these investors, while also seeking to identify those conditions important to investment decision-making (Lamech and Saeed 2003). Investors were asked to evaluate their experiences with investments in emerging markets, to indicate those criteria deemed most important when evaluating investment decisions, and to denote their expectations surrounding future investments (anticipated returns, target countries/regions). While most respondents were domiciled in North America and Western Europe, the span of the survey was international, with investor views represented from Japan, East Asia, and Africa. Moreover, investments evaluated by these respondents reflected experiences across Africa, East Asia and the Pacific, South Asia, Eastern Europe and Central Asia, Latin American and the Caribbean, and the Middle East and North Africa.

According to the survey, despite growing demand in the power sector—estimated at approximately 4 percent per year—52 percent of private power investors are less interested in or retreating from investments in developing countries. Only 6 percent indicated a greater level of interest. The primary reasons the number of traditional investors is limited and shrinking are:

- High barriers to entry in terms of both capital and skills; and
- An insufficient number of new entrants to replace retreating investors (exit)

On balance, however, investors in larger projects in the ECA region were more satisfied than not. Moreover, investors in smaller scale projects were generally satisfied with their investments. The Lamech and Saeed survey presented the following key messages to governments. In addition to the above key messages, the survey presented the following ranking of investor priorities (Figure 1.6).

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3. The *IFC Private Power Investors in Developing Countries Survey* 2002 has surveyed 65 firms that invest their own equity outside their home countries.

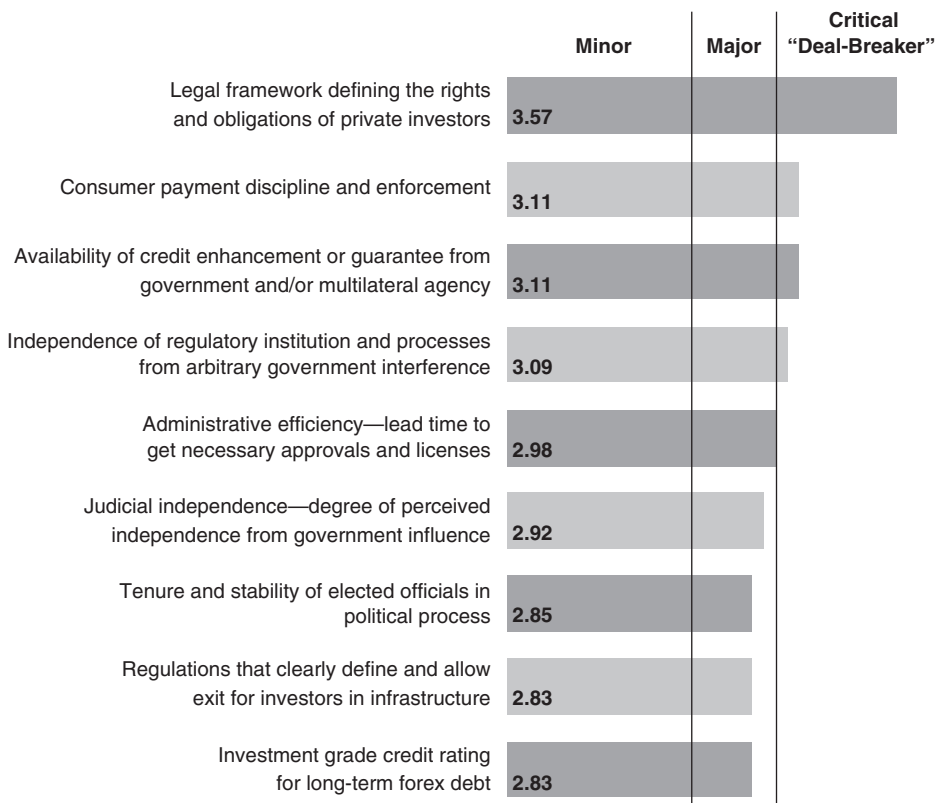
4. The *Movers and Shapers* European study by PricewaterhouseCoopers was conducted throughout December 2002 by surveying 107 senior executives in major utilities across 19 European countries. The majority of participants were Board members, Directors and Heads of Departments. Several were CEOs, Presidents or Vice-Presidents.

5. McKinsey & Company's Global Investor Opinion Survey was undertaken between April and May 2002, in cooperation with the Global Corporate Governance Forum. The survey is based on responses from over 200 institutional investors, collectively responsible for some \$2 trillion of assets under management.

6. The European International Contractors (EIC) is the industry federation representing construction industry federations of 15 European countries. In the year 2000 the member federations carried, through their members, an international business to the tune of \$45 billion.

- **Ensure adequate cash flow in the sector.** Among the highest priorities identified by investors were adequate tariff levels and collection discipline. Investors are unlikely to consider an investment if these conditions are not present.
- **Maintain the stability and enforceability of laws and contracts.** A clear and enforceable legal framework is also among the top priorities for investors. They want the “rules of the game” to remain credible and enforceable—not altered at the government’s convenience once they have made investment decisions based on those rules. A government’s willingness and ability to honor its commitments are key.
- **Improve responsiveness to the needs of investors.** Investors identified government unresponsiveness to their needs and time frames as the most important factor in the failure of investments. They considered the administrative efficiency of a host government one of the top factors in their decisions to invest in a country. Completing better preparation of transactions before inviting investors to participate can help reduce processing delays and the related opportunity costs for investors.
- **Minimize government interference.** Investors are most satisfied with investment experiences when they are free to realize returns from their investments without government interference. Where investment experiences were successful, investors pointed to their ability to exercise effective operational and management control of their investments as a key factor. When investors consider investing in a country, they give much weight to the independence of regulatory processes from government interference.

**Figure 1.6. Investors’ Priorities**





The ranking reveals the critical nature of underlying laws and regulations, emphasizing the importance to investors of operating in an environment where responsibilities are clearly defined, obligations fulfilled, and agreements upheld. Related is the fourth critical “deal-breaker” which indicates the need for independence in regulatory institutions and processes. Investors also rank consumer payment discipline and enforcement with high importance as the presence or absence of such directly impacts the operation’s revenues and, therefore, its ability to cover its own financial burdens. Likewise, investors hold critical concern for the availability of credit enhancement tools or guarantee instruments which insulate them from risks outside their control.

*PricewaterhouseCoopers Survey of Utility Leaders.* The PricewaterhouseCoopers *Movers and Shapers 2003* survey queried major gas and electricity company leaders in Europe and the United States. The survey found that, while investors remain cautious, they continue to seek new investments and new markets in order to differentiate their market offerings; build optimal value; and match capability shifts. Despite this interest in geographic expansion, almost two-thirds of companies are focused on scale expansion in Western Europe, and a half are eyeing Central and Eastern Europe.

The survey also emphasizes investor concerns over regulation and pricing, which, it is believed, will take the lead in shaping electricity and gas markets over the next five years. Specifically, the survey offers the following key findings.

- **A chasm opens up.** The gap between the mega-players and other companies on the global stage has become a huge chasm in the minds of European gas and electricity company leaders. [...] In the space of just two years, the gap between the leaders and the rest has grown fivefold.
- **European influence extends.** The influence of European companies on the global market is reflected in responses to our U.S. survey. Five out of seven companies identified as global leaders by U.S. gas and electricity chiefs are European entities. However, American utility leaders don’t view the European companies as a key competitive threat in their home markets.
- **Regulation and price worries run deep.** Regulation and continued wholesale price volatility top the list of factors that will have the most impact on European electricity and gas markets over the next five years in the opinion of survey respondents. With European markets still sitting ambiguously between liberalized liquidity and an oligopoly, many fundamental issues remain to be resolved, among them the achievement of third-party network access and transparent charging mechanisms.
- **Vertical integration remains the dominant imperative.** As the harsh winds of the bearish capital markets continue, few respondents appear to favor the asset-light model of previous years. Convergence and vertical integration are the biggest drivers of merger and acquisition (M&A) activity, and accounted for over 50 percent of all deals done during 2002. Portfolios with strong positions in both generation and networks look set to continue over the coming years, and vertical integration is seen to offer shelter from market-risk exposure, credit risks and uncertain market liquidity.
- **Trading capabilities come of age.** Trading has moved to play a much broader role in European utility companies’ strategies, and Europe’s utility leaders are moving to consolidate their trading capabilities, having faced significant ‘catch-up’ challenges in previous years. Investors are engaging in a range of internal changes and reporting reforms in the wake of energy trading turmoil, but will this be enough to ensure investor and regulatory confidence? Independent reviews of a company’s risk exposure may need to become the standard practice to satisfy the demands of independent directors and other stakeholders.

*Deloitte & Touche Survey of Private Equity Investors.* The Deloitte & Touche *Private Equity Confidence Survey—Central Europe March 2003* indicates a positive outlook for private equity investments in the region. The survey reveals that private equity investors are most interested in consolidation and/or multi-country strategies. In particular, the energy and utilities sector attracted the interest of 11.5 percent of survey participants.

The survey highlights the following key findings.

- 52 percent of key respondents expect an **improvement in the regional economy**, while 43 percent expect no significant changes;
- One third of respondents expect the **average size of transactions to decrease**;
- Almost 21 percent of respondents will **focus on support services** (such as facilities management, logistics, security, cleaning and staffing), while only 1.5 percent expect to focus on the financial services sector; and
- More than half of respondents expect the overall **market activity to increase**.

*McKinsey Survey of Professional Investors.* In July 2002, McKinsey & Company administered a survey of professional investors ranging from institutional investors and money managers to private equity and venture capital investors to banks and brokers. The main lessons of the survey follow.

- **Corporate governance is at the heart of investment decisions**
  - Investors state that they still put corporate governance on a par with financial indicators when evaluating investment decisions.
  - An overwhelming majority of investors are prepared to pay a premium for companies exhibiting high governance standards. Premiums averaged 12–14 percent in North America and Western Europe; 20–25 percent in Asia and Latin America; and over 30 percent in Eastern Europe and Africa.
  - While the relative significance of governance appears to have decreased slightly since 2000, this highlights that (i) many countries have implemented governance-related reforms that have been welcomed by investors, and (ii) more than 60 percent of investors state that governance considerations might lead them to avoid individual companies with poor governance with a third avoiding countries.
- **Financial disclosure is a pivotal concern**
  - In pursuit of better accounting disclosure, investors resoundingly express support for the introduction of a single unified global accounting standard, with 90 percent favoring such a move. However, investors are split down the middle on the preferred standard.
  - Investors are unified on expensing stock options in P&L statements, with over 80 percent supporting such a change.
- **Reform priorities focus on rebuilding the integrity of the system**
  - Investment behavior is affected by a broad spectrum of factors, not just those at the corporate level. The quality of market regulation and infrastructure is highly significant, along with enforceable property rights and downward pressure on corruption.
  - After strengthening corporate transparency, investors believe companies should create more independent boards and achieve greater boardroom effectiveness through such steps as better director selection, more disciplined board evaluation processes and greater time.
  - Specific policy priorities include strengthening shareholder rights, improving accounting standards, promoting board independence and tighter enforcement of existing regulations.

*European International Contractors, White Book on BOT and PPP.* The European International Contractors (EIC) is the industry federation representing construction industry federations of 15 European countries. In the year 2000 the member federations carried, through their members, international business to the tune of \$45 billion. During the recent years many members have been active in business fields of infrastructure development and public buildings. The increasing involvement of its associates in public infrastructure development has led EIC to produce a White Book in 2003 on BOT and PPP, recognizing the potential of public-private partnership in shaping the future of the business as a whole.<sup>7</sup>

In the White Book the EIC puts forward some interesting points and suggestions to improve the overall framework for PPP as viewed by the private sector:

- The role of international financial institutions, multilateral development banks and export credit agencies is of crucial importance in the development of BOT/PPP projects in order to compensate for the deficiencies of local financial markets. Their intervention should be concentrated on the following two aspects: (i) improvement, design and development of specific tools to respond to the particular needs of BOT/PPP projects; and (ii) intensification of efforts to build capacity in host countries.
- Guarantees in respect of political risk from multilateral financing agencies represent an important mitigation tool for privately financed infrastructure projects. The agencies should review and extend their political risk cover programs in terms of scope and volume in order to adapt their products to the specific requirements for such projects;
- BOT/PPP financing requires the improvement of the financial capacities of host countries. A better use of the socioeconomic benefits generated by public infrastructures, coupled to an innovative financial engineering could achieve this objective. To this end, a significant reform of public budgetary and accounting frameworks is required.

In stressing the importance of risk mitigation instruments, the EIC stresses the manifold role of International Financial Institutions (IFIs). Multilateral and bilateral development agencies have many ways to support PPP by becoming: (i) a knowledge partner to the host government during project preparation and an advisor on how risk mitigation instruments can be designed and implemented; (ii) a comfort factor for all project participants and risk takers by simply participating in a transaction providing an invisible form of risk mitigation; and (iii) a provider of credit enhancement and financial risk mitigation instruments to make projects more financially viable in addition to their traditional role of lenders of last recourse.

*Anecdotal Evidence from Interviews with Private Equity Investors.* To complement the findings of the existing surveys of operators and investors described above the Team carried out an informal survey of private equity firms investing in local infrastructure in emerging markets. The firms surveyed were selected among the major global private equity firms using the Galante's Venture Capital and Private Equity Directory.

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7. The European International Contractors' White Book on BOT and PPP was published in 2003 and is available at [http://www.eicontractors.de/seiten/publikations/eic\\_white\\_book.pdf](http://www.eicontractors.de/seiten/publikations/eic_white_book.pdf) (last visited March 15, 2004).

The Directory was browsed according to the following search criteria: (i) the equity firms invest in emerging markets; (ii) the equity firms invest in local infrastructure (energy, water, and so forth). The initial results following the query showed some 35 firms. The query was further narrowed down to 15 firms after consultation with sector experts—fund managers in major private equity firms and international development agencies such as Overseas Private Investment Corporation (OPIC).

The Team approached the majority of the firms identified and obtained responses from eight representing private equity firms with investment experience in local infrastructure in emerging markets.<sup>9</sup>

The focus of the survey was to identify the main drivers and inhibitors for private equity investments in municipal infrastructure in emerging markets and understand the magnitude of the private equity investment in this sector. In considering the investors' approach to municipal infrastructure, the survey aimed at collecting information on four main points, specifically (i) the size of the investment and portfolio; (ii) the sectors of interest for the investor, (iii) the opportunities and experiences of exit; and (iv) future plans.

The investors surveyed revealed an overall interest in urban infrastructure investments in emerging markets. Municipal infrastructure has a good potential thanks to the clear understanding investors can get of important variables for investment decisions, such as customer base, operating costs, margins, etc. Yet, such advantages are counterbalanced by capped rates of return on the investment. In addition, most of the investors have identified the following factors as main inhibitors for investment in the sector:

- Lack of transparency in contract negotiation with local and municipal authorities.
- Lack of proper political risk mitigation instruments.
- Lack of proper exit opportunities.

The results of the survey reveal an increase in regionally targeted and infrastructure-focused funds. Private equity investors acknowledge the staggering investment gap in infrastructure in the emerging markets and seek to target these sectors in continued search of greater returns. However, private equity investors are cognizant of the poor performance experience of traditional operator-investors and, thus, seek additional protection and/or assurance from governments or multilateral institutions when making investments in these sectors.

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8. The *Galante's Venture Capital and Private Equity Directory* is one of the most complete and accurate directories of private equity firms published by Asset Alternatives, Inc.

9. The private equity firms interviewed are: FondElec Group Inc., Soros Investment Capital—Emerging Markets, Darby Overseas Investment, Milestone Merchant Partners, LLC, Emerging Markets Partnership—AIG Emerging Europe Infrastructure Fund, Copernicus Capital—Private Equity for Emerging Europe, Global Environment Fund, The Overseas Private Investment Corporation (OPIC) Fund of Fund



# Elements of an Alternative PPP Framework

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## Impediments → Instruments: Critical Path Analysis

Based on the analysis presented in Chapter 1, impediments to private participation in infrastructure (PPI) in the Region may be grouped in four main categories: (i) inadequate cash flow (level, variability); (ii) inadequate contractual framework (transparency, enforcement, and dispute resolution); (iii) lack of policy risk mitigation instruments; and (iv) limited exit possibilities for first-round investors. These impediments may be addressed through a broad range of policy/institutional/financial instruments that may be also grouped within four main categories: (i) foreign exchange risk allocation instruments; (ii) contract regulation instruments; (iii) tariff/off-take instruments; and (iv) financial instruments.

Table 2.1 identifies the policy/institutional/financial instruments that are on the critical path (C) to address each category of impediment.

*Inadequate cash flow (level, variability)* is the first concern among investors in infrastructure PPPs in the region. Cash flow level and stability may be influenced, directly or indirectly, by a broad range of foreign exchange risk allocation, legal, regulatory, institutional and financial instruments. However, two main instruments are on the critical path to meet investors concerns.

First, foreign exchange predictability is a necessary, albeit not sufficient, condition for attracting foreign investors in PPP transactions. The impact of the recent Turkish economic crisis of 2000 on local utility PPPs has been dramatic, as was the case in the Argentina crisis. In the case of Turkey, unconstrained guarantees offered by the Government to foreign investors in local infrastructure PPPs resulted in major, ongoing fiscal liabilities that cast a shadow on the future of PPI in the country. In countries with a history of macroeconomic instability, or where investors' expectations of future macroeconomic stability

**Table 2.1. Impediments -> Instruments: Critical Path Analysis**

Impediments	Instruments			
	Forex risk allocation	Contract regulation	Tariff/off-take	Financial instruments
Cash Flow	C		C	
Contractual Environment		C		
Policy Risk Mitigation				C
Exit Opportunities				C

C = critical path

Forex = foreign exchange

are low, governments need to address the issue of allocation of foreign exchange risks among government, investors and users as a pre-requisite for sustainable PPP transactions.

Second, even if the foreign exchange risk allocation issue is resolved, the capacity of central and local governments to implement a transition to cost-recovery tariffs is also on the critical path to attract both foreign and domestic investors in local infrastructure PPPs (Gómez-Lobo, Foster, and Halpern 2000c). Although initial tariff increases may tail off due to the cost reductions resulting from the efficiency gains resulting from PPI investments, the transition to cost-recovery tariffs may cause major access and affordability problems for lower-income households in many countries of the region, at least in the short term. Governments need to address these problems up front less they will negatively affect the sustainability of PPP transactions.

*Poor quality of the contractual environment*, especially contract transparency, enforcement and dispute resolution, is the second major concern of investors in local infrastructure PPPs in the region. This concern may be addressed by a broad range of policy instruments, starting from improvement in the overall legal and regulatory framework<sup>10</sup> to improvements in contract regulation (model contracts), contract enforcement and dispute resolution and contract regulation frameworks. Based on existing surveys, the quality of the overall legal and regulatory framework does not appear to be on the critical path to successful PPPs in ECA, and is definitely not perceived as a deal-breaker by investors in the region. By contrast, improvements in contract transparency, enforcement and dispute resolution are seen as critical to successful PPP transactions. Therefore, in parallel with undertaking broad-based judicial reforms that are critical to improve contract enforcement and dispute resolution over medium to long-term, governments need to develop effective systems that will improve contract transparency upstream and provide avenues for contract monitoring and out-of-court dispute resolution without waiting for the full impact of the reforms of the judiciary.

*Lack of policy risk mitigation* instruments is the third major concern expressed by investors in local infrastructure PPPs in the region. The most appropriate solution would be

10. Appendix B describes the investment climate in selected ECA countries.

### Importance of Foreign Exchange in Concession Agreements: The Case of Argentina

The 2001 economic crisis in Argentina particularly affected the services and infrastructure sectors under the regime of concession with the private sector. The impact of currency depreciation was twofold: on the one hand it heavily affected users due to the steep increase of tariffs, on the other hand it distressed utility companies and their balance sheets.

In February 2002, a decree established the Commission for Contract Renegotiation and Public Services to carry out the process of renegotiation for utility contracts and public services. Progress in this area, however, has been very slow: a law from 2003 (Law 25.790) extended the deadline for contract renegotiation until December 2004, and prospects indicate that this deadline may be further extended. In the meantime, a new law for contract negotiation was presented to Congress in mid-2004 and if approved may redefine the playing field for utility contracts.

**Table 2.2. Social Impact of the Crisis by Sector: Argentina**

	Reduction in consumption	Increase in arrears	Increase in disconnections	Comments
<b>Water</b>	No measurement	Unofficially reported relatively high	Low voluntary Medium for arrears	The main impact seems to be arrears
<b>Electricity</b>	Decrease of 6.8%	From 59% to 63% (Edenor) From 54% to 60% (Edesur)	50% decrease in disconnection rate (Edenor and Edesur)	Slight decrease in consumption and increase in arrears but without many disconnections
<b>Gas</b>	Decrease of 8% in industrial use and increase of 5.4% in residential	From 8% to 20%	Decrease in cuts (6% for Ecogas)	Slight decrease in consumption and increase in arrears but without many disconnections
<b>Telecom</b>	Decrease of 8.24% in local calls and 13% in long distance	From 3% to 14%	7% decrease in active fixed connections	Major decrease in consumption and increase in arrears with high decrease of disconnections

Source: Vivien Foster, *Impacto Social de la Crisis Argentina en los Sectores de Infraestructura*, World Bank Working Paper n. 05/03.

the development, implementation and enforcement of a comprehensive and coherent legal and regulatory framework, which would include: contract regulation, contract transparency and minimize contract disputes or contract breakdown. Moreover, the existence of strong framework for contract dispute resolution, both judicial and extra-judicial, would ensure that investor rights are adequately protected in the few cases when a dispute does take place.

However, in practice, the implementation of such a comprehensive legal and regulatory reform program focusing on effective court and alternative dispute resolution—such



as arbitration—would take time to be fully implemented. In the meantime, governments would need to develop transitional policy risk mitigation instruments to protect investors against sub-sovereign breach of contract risk. These instruments may take the form of third-party policy guarantees, with or without counter-guarantee by the government.

*Lack of exit opportunities* is the fourth major concern expressed by investors in local infrastructure PPPs in the region. This impediment is on the critical path to attracting first-round private equity funds in the sector. Given the narrowness and shallowness of capital markets in many countries of the region, there is a need to develop a new class of investment instruments that would create exit opportunities for first-round private equity funds investing in local infrastructure while providing opportunities for portfolio diversification for emerging institutional investors such as pension funds, insurance companies and mutual funds.

## Core Proposal for the Alternative PPP Framework

As a pre-requisite for implementing the proposed alternative PPP framework, interested governments would have to assess the need for a comprehensive framework for allocating foreign exchange risk among government, investors and users, based on past record and on investors' expectations of future macroeconomic performance.

In order to attract existing or new first-round private equity funds to invest in local infrastructure transactions, a new class of second-round local infrastructure investment trusts (LIITs) would be developed under this framework to open up exit opportunities for the first-round funds. Private equity funds would be the prime motor for the identification of PPP transaction pipeline. They would invest in first-round transactions and take effective control of local infrastructure companies through majority ownership or through a minority controlling stake. Local authorities could retain a non-controlling share in the company. The private equity fund would carry out the turnaround of the company and exit within a four-to-five year period. The second-round local infrastructure investment trust (LIIT) would buy the stake of the first-round private equity fund upon its exit and would hold this stake in the restructured company over the long-term (fifteen to twenty years). By contrast with the short- to medium-term capital growth play of the first-round private equity fund, the LIIT would be in for a capital dividend play in a restructured company generating a steady recurrent cash flow.

The LIIT would be established by a private sponsor together with a group of core investors, which would include IFIs. The fund could be a mixed fund investing both in listed securities in the country or in the region, and in unlisted securities of local infrastructure companies purchased from the first-round private equity funds, to provide a desirable risk-return-liquidity mix for the investors. The fund would sell its shares and issue bonds to domestic and foreign institutional investors such as pension funds, insurance companies and mutual funds (fund-of-funds). A variety of design options and alternatives needs to be considered in establishing such a fund. This is explored in the next section.

Given the past record of breaches of contract between local authorities and private investors across emerging markets, fund managers will seek third-party sub-sovereign breach-of-contract risk cover in order to protect their equity investment in the local infrastructure company or debt incurred to finance restructuring/expansion investments, or both.

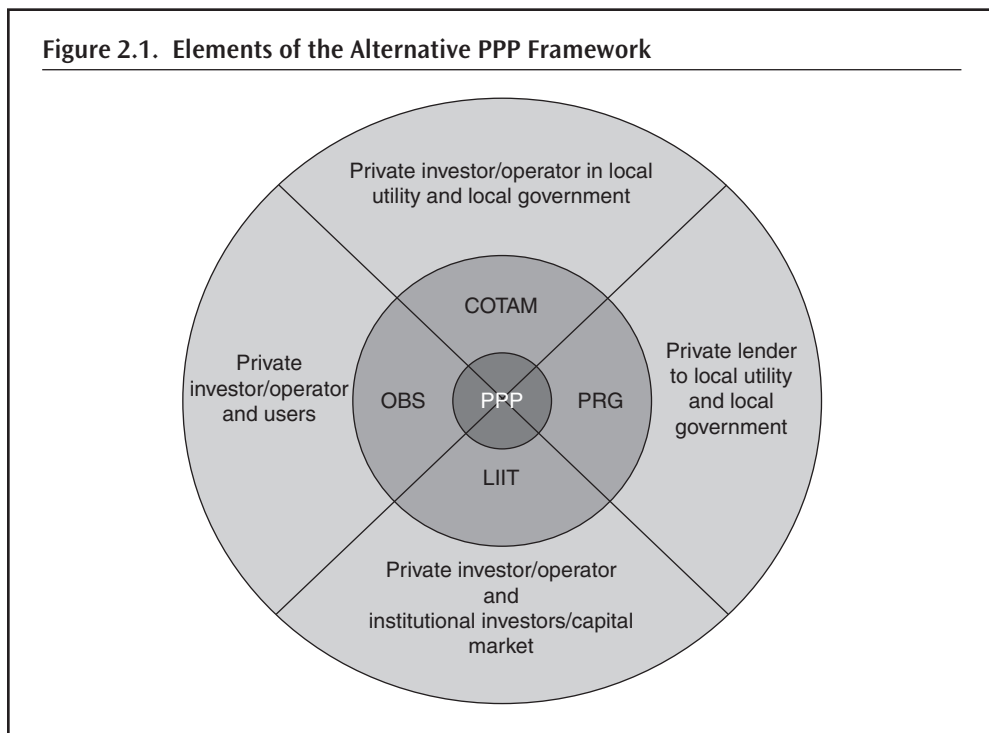
Depending on the type of cover sought by fund managers, and depending on the price of such a cover, this could enhance the risk-return profile achieved by both first- and second-round funds. This could also significantly enhance the marketability of the LIIT shares and bonds with institutional investors. This need would be met through a second category of instruments proposed under this PPP framework—that is, sub-sovereign breach-of-contract insurance or guarantee facilities. Here as well, several design options are feasible depending on sub-sovereign credit risk profile, and they are explored in the next section.

As contract negotiations take place, fund managers will have a keen interest in ensuring the socioeconomic feasibility and sustainability of the required transition to cost-recovery tariffs. While the efficiency gains extracted by the turnaround of the local infrastructure company by the first-round fund will exert a downward pressure on required tariff increases over time, the prevalence of tariffs at well below costs in many ECA countries implies that the transition to cost recovery tariffs will necessitate up-front tariff increases with attendant access and affordability problems for low-income households. This problem could be alleviated through a third type of instrument proposed under this PPP framework—that is, output-based subsidy schemes (OBSS) that would smooth the impact of the transition to cost-recovery tariffs to targeted categories of households. Again, many design issues and alternatives need to be considered in establishing such schemes, and these are examined below in the next section.

Finally, to ensure the transparency and sustainability of the contract between first and second-round funds and the local government, the proposed PPP framework would be supported by a fourth instrument component—a contract transparency and monitoring system (COTAM). In such a system, a neutral third party would participate in contract negotiations between fund managers with their buy-side advisors, and local authorities with their sell-side advisors. The third party would not be a signatory to the contract, but its objective would be to maximize contract transparency by bringing issues to the negotiating table based on international best practice and by eliminating issues such as essential contract elements that the parties might choose to ignore or abnormally low penalties for non-performance by either party. The system would continue to monitor contract implementation and would provide a first, informal level for dispute resolution before resorting to binding arbitration or court action. Here as well, many design issues and options may be considered, and some of them are explored in the next section.

The proposed PPP framework could also benefit traditional operators/investors by easing their participation in infrastructure projects not only through management contracts with both first- and second-round funds but also through minority equity positions in local infrastructure transactions alongside the funds.

The proposed framework would require interested countries to establish a coordinating unit to oversee the implementation of the four components and to maximize the synergies between them. Such coordinating unit may reside within the Ministry of Finance or within a Technical Ministry in charge of overseeing PPPs in the country. The implementation of the individual components would be responsibility of existing entities within the public sector (Technical Ministry or specialized government agency) in the case of the partial risk guarantee facility and of the output-based subsidy scheme, an independent entity in the case of the COTAM system, and the private sector in the case of the LIIT.

**Figure 2.1. Elements of the Alternative PPP Framework**

## Framework Components

### *Local Infrastructure Investment Trust (LIIT) Instrument*

Reviews of investor surveys and discussions with existing and potential investors, reinforced by the messages of World Bank Group reports and the November 2003 Infrastructure and Energy Strategy Note, and make clear the need to attract new categories of investors at the sub-national level. Among the factors in achieving this objective is the need to create an environment attractive to first-stage investors—those investors who would privatize the utility and make the investments necessary to effect a turnaround of its operations. The PRG and effective contract negotiation services contribute to this environment, but the lack of exit alternatives remains. Long-term, second-stage investors are currently absent the marketplace. The LIIT is an innovative vehicle for mobilizing institutional resources, both globally and regionally, toward infrastructure services improvement, providing exit alternatives for first-round private equity investors through increased marketplace liquidity. Furthermore, the LIIT links the development of private pension funds arising from pension system reform to the long-term infrastructure investment needs of the countries in the region.

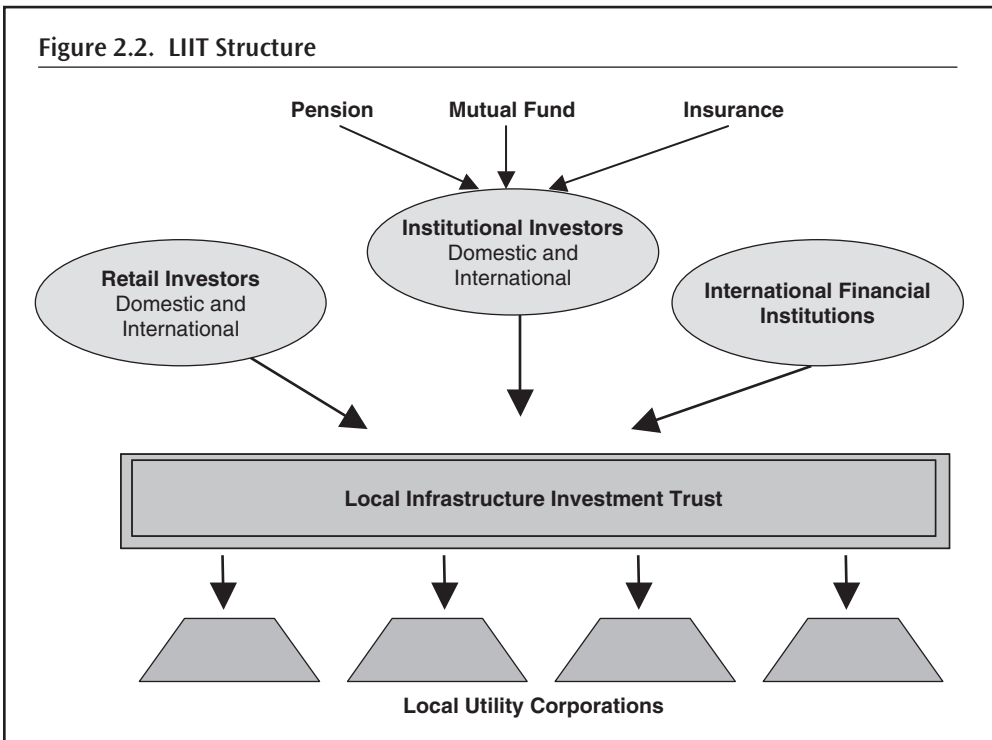
An LIIT is an investment fund that invests in long-term equity positions in local utility corporations and raises resources through equity, quasi-equity and debt issues on the domestic and international market. The LIIT would buy equity positions in local utility companies from first-round investors, including infrastructure private equity funds, and would sell its shares and issue bonds to institutional investors, including insurance companies, pension

funds and mutual funds (funds-of-funds) both domestically and abroad. The LIIT would be managed by a recognized private fund management company.

The LIIT would be listed on multiple securities exchanges, both domestic and abroad, including potential US or EU host exchanges. With this reach, both foreign and domestic retail and institutional investors could buy shares in the LIIT. Moreover, as the chart above shows, International Financial Institutions (IFIs) could participate through equity as well as through quasi-equity or debt instruments in order to provide leverage and, therefore, enhance the expected investment return scenario. Investments in local infrastructure utilities would be made and monitored by the LIIT. While these underlying investments would span 15 to 20 years, investors in the LIIT could trade in and out of the trust more readily, thus assuring the necessary liquidity.

Domestic institutional investors, such as those in Poland, Romania, and Turkey, often still face restrictions as to investments in foreign securities, although this situation is expected to ease in Poland upon accession to the EU. With a local listing, this investor class would have access to an alternative investment instrument and potentially greater returns than generated by the limited, domestic investment offerings otherwise available to them. In this way, domestic pension and insurance funds would be mobilized to finance local infrastructure investment needs. International listings would attract new categories of foreign capital investors attracted by tradable security offerings, which provide sufficient liquidity.

*Key Issues to be Addressed in the Feasibility Study.* While the LIIT offers promise in filling the substantial void in the investment landscape, and while there is high preliminary interest in the product among potential investors, numerous issues remain to be resolved



in establishing a workable trust structure. These issues and related questions would need to be addressed in a full feasibility study of the LIIT fund concept.

Key issues to be addressed up-front by the feasibility study include return targets to meet investors' and IFIs expectations as well as LIIT portfolio investment strategy.

*Redemption Requirements Facilitating Improved Liquidity.* Similar to a real estate investment trust (REIT), the LIIT offers investors liquidity in otherwise illiquid real asset investments. Despite 15 to 20 year underlying investments in hard assets, shareholders in the LIIT should be able to redeem shares much more readily. To achieve this, however, the trust must be able to liquidate its portfolio to meet redemption demands. The structure of the trust may range from purely closed-ended, tradable only in secondary markets, to open-ended, tradable on demand:

- Closed-end, redeemable only through trading in the secondary market;
- Redemption, subject to advance notice requirements, honored on a best-efforts basis only;
- Best-efforts demand redemption with no advance notice requirements;
- Assured redemption given certain minimum advance notice requirements; or
- Open-end, assured demand redemption.

A truly open-ended option is not feasible given the illiquid nature of the underlying investments, and a complete closed-ended trust is not optimal given the desire for improved marketplace liquidity. One possible solution is that of a hybrid trust which invests a percentage of its portfolio in long-term local infrastructure assets, with the remaining percentage in tradable, emerging market securities.

The percentage held in tradable securities would buffer the trust in the event shareholders demand expedient redemption. With an advance notice period required for redemption, the trust would be further insulated, ensuring liquidity through the sale of tradable securities and the eventual, planned sale of long-term investments, if necessary.

Numerous questions remain as it pertains to the aforementioned structure: What is the optimal share (or range) to be invested in private equity versus tradable securities? Where should the tradable securities be focused: global or regional emerging markets? Is an advance notice period necessary and, if so, what is the optimal period? Should investors be subject to a minimum hold period? At what level should a backstop be set to prevent full depletion of assets retained in tradable securities? These questions, and others, should be addressed through the undertaking of an in-depth feasibility study that would be focused on countries that express interest for this instrument.

*Investment Focus.* As is clear from the preceding discussion, the structure and investment focus of the LIIT will be determined in large part by the enduring appetites of the trust's target investors for risk. This involves an understanding of investor needs—and how those needs change over time—pertaining to reduced hold periods, performance expectations (returns and volatility), and diversification across countries and sectors. The view of the trust design currently is toward a single-country, multi-sector strategy. Nevertheless, it remains to be determined how such a design would be received in the marketplace.

*Legal/Regulatory Framework.* The implications of legal and regulatory considerations surrounding the LIIT are twofold:

- Pertinent to the functioning of the trust itself; and
- Regarding the portfolio of investments.

The trust will be governed by the securities laws of the jurisdiction in which the trust is listed and traded. Not only will this influence the structuring of the trust and its trading limitations, but it will also determine reporting and supervisory requirements. Further attention will be necessary to determine the structure (including fees, closings distributions, and so forth) as well as matters of administration and underwriting.

Given the establishment of the trust, its investments will be subject to the legal and regulatory environment(s) governing the privatization of municipal utilities as well as to PPP laws in the jurisdictions of interest. Moreover, there may be restrictions on the capital structures of the underlying investment transactions; on the matching of EU structural funds; and over government transfer intercepts as part of partial risk guarantee schemes for fund investments. Each of these elements can impact the economics of the LIIT's investments and, therefore, of the trust.

*Marketing the LIIT.* Preliminary discussions with various investor classes indicated widespread interest in this product, and discussions with private banking institutions, who would underwrite similar issues, confirms that they believe there is a potential market for this product. Nevertheless, numerous questions remain surrounding the establishment and governance of the trust and the underlying projects. A feasibility study is necessary to address these questions, contribute to the sound formation of a working trust, and ensure its successful placement in financial markets.

Once the feasibility study has been completed, and once the fund has been pre-marketed to potential investors and a fund sponsor has been identified, IFIs could be approached with an offer to take equity stakes in the fund or to provide leverage through quasi-equity or debt.

### ***Political Risk Insurance/Partial Risk Guarantee Facility Against Sub-sovereign Breach-of-Contract Risk***

Based on the findings of the reviews of investor surveys and informal interviews with past and potential operators/investors, there is a clear indication of demand for guarantees against breach of contract by sub-sovereign authorities. To respond to these needs, the proposed PPP framework integrates a political risk insurance (PRI) or a partial risk guarantee facility (PRGF) to cover private investors in local infrastructure utilities against breach of contract by sub-sovereign authorities.

At the sub-sovereign level, the choice between the two types of instruments is governed by the policy risk profile of the sub-sovereign involved in the contractual relationship with the private investor. At one end of the spectrum, policy risk enhancement instruments may not be needed in the case of sub-sovereigns at or above investment grade. In the middle are sub-sovereigns with intermediate policy risk profile in which case third-party policy risk insurance without sovereign counter-guarantee may be attractive. At the other end of the

spectrum are sub-sovereigns with high policy risk profile in which case third-party policy risk guarantees would not be attractive without sovereign counter-guarantee.

*MIGA Political Risk Insurance (PRI) Facility.* To cover transactions with sub-sovereigns with intermediate policy risk, a political risk insurance (PRI) facility including coverage against sub-sovereign breach of contract risk would be established by MIGA.

The objective of the PRI Facility would be to cover investments by first and second round investors for a range of risks including, in addition to political risks traditionally covered by MIGA such as war and civil disturbance, expropriation and transfer restrictions including inconvertibility, breach of contract risk at the sub-sovereign level.

The PRI Facility would be negotiated between MIGA and interested first-round private equity funds and second-round local infrastructure investment trust. Under the agreement, the fund/trust would apply for coverage for a specific risk or a combination of risks transaction by transaction, as needed. The agreement would allow the fund/trust to obtain (i) reduced prices for coverage by MIGA by comparison with separate applications outside such agreement and (ii) streamlined procedures for the approval of individual submissions to MIGA.

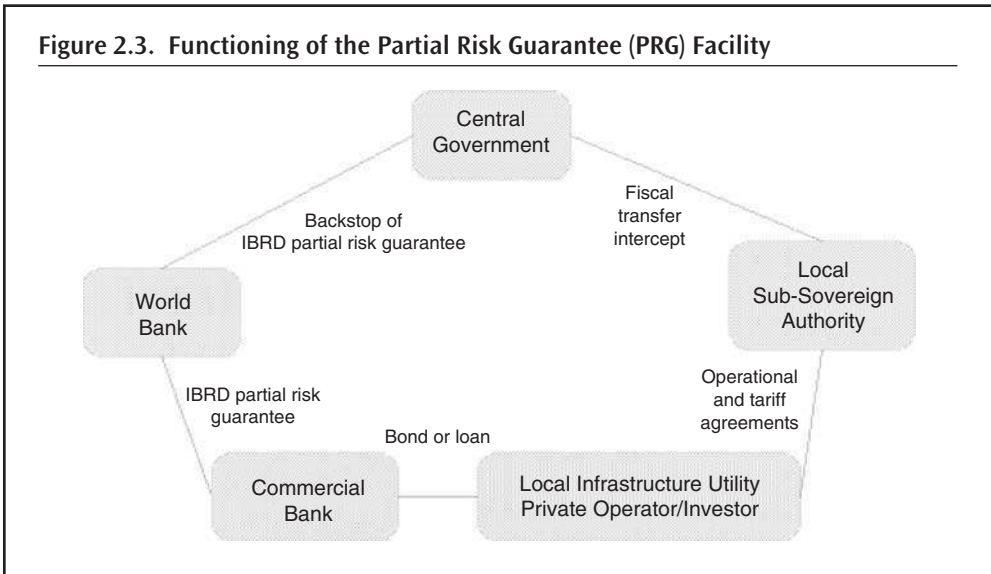
The coverage would apply in the case of an equity investment, or shareholder loan, or non-shareholder loan. Such coverage is also available for management contracts and many other forms of cross border investments, hence being a crucial element in the promotion of PPP. In addition, coverage may be provided also if the project is supported by a subsidy scheme. In this case, the investors may want to cover the risk against the breach by the government of the obligation to make funding available.

*IBRD Partial Risk Guarantee (PRG) Facility.* To cover transactions with sub-sovereigns with high policy risk profile, Governments would establish a partial risk guarantee facility against sub-sovereign breach of contract risk.

The following scenario describes the functioning of the guarantee product of the proposed PRG component of the proposed PPP framework (see also Figure 2.3).

An investor in a local infrastructure utility corporation issues a bond, or contracts a loan with a bondholder/private lender, to finance the investment required to improve efficiency and/or reach environmental standards. The investor will be concerned about the sustainability of the operational and tariff policy agreements with the pertinent sub-sovereign authority, especially following any future changes of local administration. Under the proposed facility, the IBRD can provide a partial risk guarantee (PRG) against the breach of the tariff policy agreement by the local authority. In the event the contract is indeed breached and, as a result of this breach, the private investor is unable to repay the principal of the bond at maturity or service loan principal, the guarantee would be called. IBRD would make payment under the guarantee and then exercise a counter-guarantee with the central government. Finally, the central government would turn to the local sub-sovereign authority responsible for the breach and exercise fiscal transfer intercepts to recover the costs the central government incurred through exercise of the counter-guarantee by IBRD. Within this scenario, the investor would be protected against tariff policy agreement breach of contract, and the involved local authority is provided a strong incentive to honor its commitments.

The growing gap between local infrastructure investment needs and available fiscal resources makes it increasingly imperative to find expedient transitional ways of bridging the gap without waiting for the optimal “first-best” long-term solutions. The continuation of the



current inefficient and politically distorted systems of funding local infrastructure investments through central budgets is increasingly viewed as the untenable worst-case scenario. Consequently, some countries are already moving towards implementing expedient solutions, rather than continue the inefficient centralized funding of these “life supporting services.”

In reference to the above, the PRG stands out as a transitional solution, since it may be perceived as perpetuating the existing deficiencies in the legal and regulatory framework, as any guarantee can be accused of doing. The PRG is an expedient solution, allowing the country to move away from the centrally funded investment regime, but requires building in a capacity for municipalities to graduate from the guarantees as soon as possible. Consequently, the PRG approach needs to incorporate a mechanism for such a graduation and phasing out from itself in the foreseeable future. A feasibility study is needed to examine this issue and come out with a realistic phase-out mechanism, probably with gradual withdrawal from the guaranteed risk portion.

The PRG Facility, as well as the other components of the proposed PPP framework, should be considered as key transitional solutions to be implemented in an environment where there is progress in policy improvement and reform programs. Even so, the PRG model and its components should be designed carefully in a way to prevent moral hazard.

In the case of the PRG Facility there are both ex ante and ex-post mechanisms to minimize moral hazard. The ex-ante risk management mechanisms hinge on selective criteria that the local entities have to meet in order to access the PRG Facility and take advantage of its risk mitigation instruments. Localities have to meet precise positive criteria related to budget and budgeting, tax, debt management, asset management and regulatory and contractual framework for local utilities (accreditation system).

In addition to access criteria, the PRG Facility has also ex-post risk management mechanisms to ensure discipline. The PRG is based on a quadrangular relationship between the World Bank, the central Government, the local government and the investor in a local utility. The PRG is structured in such a way that incentives for maintaining



contractual undertakings are maximized. Critical is the exercise of intercept power<sup>11</sup> by the central Government in case a guarantee is called following local government in breach of contract. In this instance, the power of the Central Government is not only limited to the intercept of revenue transfer, but also to the intercept of tax shares, grants, dedicated revenue stream and seizing of accounts of localities.

*Advantages of the PRG Facility.* The PRG facility offers two very important advantages sought by many private sector investors as well as by local sub-sovereign authorities: (i) better financing terms through spread reduction and maturity extension; (ii) incremental public debt at a fraction of capital investment leveraged; and (iii) better discipline of all involved parties.

*Spread Reduction and Maturity Extension.* The investor should be able to issue its bond at a lower spread and with a longer maturity given the beneficial impact of the AAA guarantee provided by the IBRD to bond investors and/or lenders. Although no examples exist to date of the PRG employed at the sub-sovereign level, evidence from PRGs at the sovereign level in other countries indicate a strong impact in terms of spread reduction and maturity extension (see Figure 2.4).

A followup feasibility study would confirm and expand the understanding of the impact of the PRG on local infrastructure utility bond spreads and maturities. The guarantee is valuable only if the reduction in spread and extension of maturity is on balance more profitable than the cost of the guarantee itself. Usually, as the credit rating of the sub-sovereign increases, and as the contract enforcement framework improves, the net benefit of the guarantee should decline over time. Thus, the system is “self-liquidating.” The feasibility study would simulate various transactions and would test the impact of PRGs with bond underwriters (and, similarly, with loans).

*Imposition of Discipline.* The incentives built into the PRG component would impose discipline on all involved parties. In fact, PRGs supported by the World Bank are very seldom called. In total, of the eight PRGs concluded to date, none have been called.

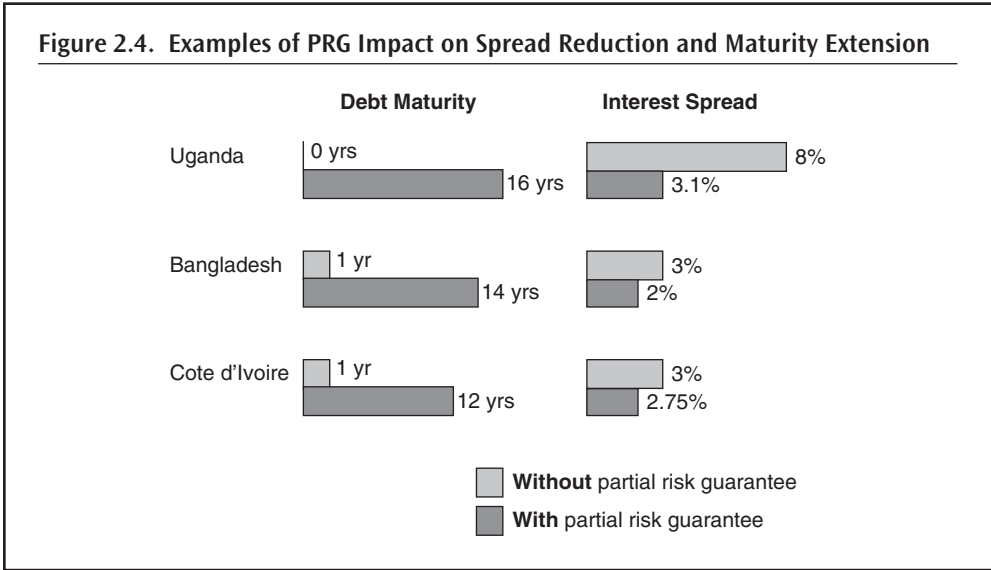
*Incremental Public Debt at a Fraction of Leveraged Capital Investment.* The PRG is also useful in enabling the Government to mobilize private resources for financing of investments in local infrastructure at a fiscal cost equal to a fraction of the capital face value of these investments, due to the actuarial valuation of partial risk guarantees. This is very important for countries where public debt cannot be utilized to finance local infrastructure investments due to tight fiscal constraints.

#### *Key Issues to be Addressed in the Feasibility Study*

*Legal and Regulatory Framework for PPP Transactions.* The feasibility study of partial risk guarantees must first address questions pertaining to the legal and regulatory framework

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11. Revenue intercepts can be designed to ensure that adequate funds are available to meet debt service payments before they come due (an ex ante intercept) or to be tapped only in the event of a default (an ex post intercept). A number of countries specifically use legislatively authorized intercepts of inter-governmental transfers to enhance the ability of subnational governments to offer reliable security for their borrowing. Freire and Petersen (2004) provide a detailed analysis of revenue intercepts.



for PPP transactions, including operations-related contracts and tariff policy agreements, among others. As presented in Chapter 1, numerous investor concerns remain over matters of investment requirements, freedom to make management decisions encouraging efficient operations, streamlining administrative burdens, ensuring fair treatment under competition laws, ability and ease of privatization, contract enforcement and dispute resolution, and so on.

*Legal and Regulatory Framework for PRGs.* The feasibility study would also concern itself with the legal and regulatory framework for partial risk guarantees. Currently, while a number of countries do have a framework to value guarantees at actuarial value—as is the case in Poland, Romania, and Turkey—many countries do not and, as such, value guarantees “below-the-line.”

The legal and regulatory review would also address the conditions for the declaration of contract breach. For instance, the study would assess the means of monitoring and revaluing the guarantee; the parties able to declare breach and under what conditions they may do so; and the methods of determining and enforcing settlement.

*Treatment of PRGs in Government Budgets.* Similarly, the study would also look at treatment of PRGs in government budgets. The actuarial value of the guarantee is equal to the amount of the guarantee times the probability that the guarantee will be called times the probability that, if called, the guarantee must in the end be paid by the central government. If the central government is able to exercise its intercept power 100 percent of the time, the actuarial value of the guarantee on the books of the central government is zero. In reality, there will be cases in which the central government will not be able to exercise its own intercept power. Ultimately, the probability of the occurrence of this event will determine the actuarial valuation of the guarantee in the government budget.

### *Output-Based Aid (OBA): Output-Based Subsidy Scheme For PPP*

In many transition and developing countries, public sector utilities often fail to recover operating costs. This prevents most utility companies from providing service population at large, due to very limited investment capacity to enhance their systems, hence leaving large areas unconnected. In addition, operating below cost recovery levels worsens the quality and continuation of service of those areas already covered by the network. The low rates of return have often prevented private investors from entering in segments of the infrastructure sector that do not offer enticing investment opportunities.

Attracting private capital requires moving tariff to cost-covering levels (including costs of investment). In many instances this means sharp tariff increases from existing levels, although initial tariff increases can tail-off in subsequent years as costs are squeezed due to the increase in efficiency resulting from the turnaround. Rebalancing tariffs leads to significant increases to prices that end users may not be able to afford, hence creating risks of adverse impact of tariff rebalancing with the lower quintiles of the population potentially connected to the network but not able to pay for services.

To mitigate the risk of adverse impact of swift tariff increase, governments have often relied upon alleviation instruments such as subsidy schemes that allow low-income users to access municipal utilities' services. The subsidy scheme must be designed to accomplish two primary objectives. On the one hand the subsidy should create incentives for operators to improve performance, quality and coverage of service. On the other, the subsidy should support the transition towards cost-recovery pricing for those users that cannot afford a rapid change in tariff.

There are many issues to consider when designing a direct subsidy for users to ensure that the measure does not create market disruption. The subsidy—whose rationale can be social welfare, access—should address market imperfections without generating adverse impact on economic efficiencies or raising any threat to the viability of municipal utilities by:

- Clearly identifying the target population: the scheme has to ensure that the subsidy reaches only the target population to eliminate the risk that unintended recipients benefit financially from the subsidy.
- Firmly defining the management of the scheme: it is crucial to design and define the transparent management of the subsidy to prevent the negative interference of red-tape and the potential for corruption.
- Transparently managing audience expectations: any subsidy scheme may generate over-expectations among the beneficiaries that the services and/or goods will be provided at subsidized costs. The scheme has to be designed and managed in such a way to prevent waste.
- Precisely supervising the implementation according to binding timeline: the scheme has to provide for an accurate timeframe of implementation to overcome the intrinsic difficulties of phasing out the subsidy.

Following such general guidelines will reduce the risks for failure or adverse outcome due to mismanagement. The establishment of a viable and transparent management process that ensures accountability of the actors involved is key. In recent years, OBA has emerged as an attractive way to establish and manage directed subsidies to balance the

process of privatization of (and private sector participation in) municipal services and infrastructure.

In general, governments are hesitant to implement subsidy schemes due to financial commitments that will affect already tight public budgets. Cross-subsidies may be a viable alternative to overcome fiscal constraints in many emerging economies, thanks to the ability to apply different user charges to different categories of customers. For instance, the costs for new connections can be recovered by charging higher fees to higher-income users.<sup>12</sup> The box on the next page shows various instruments which are available to promote access to basic infrastructure services.

*Output-Based Subsidy Scheme: The Chilean Case.* The Chilean experience of output-based subsidy for water consumption is often quoted as one of the internationally-recognized best practices. The subsidy scheme in Chile was initially designed to meet the increasing need of restructuring the water sector while improving its efficiency and sustainability. The Chilean case is also a valid example of functioning public-private interaction in increasing access to and quality of water: in fact, although public authorities determine how the subsidy is applied, the now mostly private companies deliver the service.

In the late 1980s, water rates were on average less than half of what was needed to finance provision of the service: this called for a much needed reform of the water sector as a whole—legal, economic, and institutional. New tariffs and a new pricing system were put into place to make the water business self-sustainable, yet highly increasing price for end users.<sup>13</sup> A plausible subsidy scheme was designed to mitigate such tariff increase while not distorting the water market.

More than connectivity, affordability has raised the need for a subsidy to ensure access to water for Chilean households. A means-tested subsidy targeted to individual customers has been preferred to location-based (geographic) or universal subsidy to specifically target only the households unable to purchase what is considered to be a subsistence level of consumption. The subsidy program, introduced in the early 1990s, relies on the water companies to deliver the service. The government reimburses them for the subsidies on the basis of the actual amount of water consumed by each beneficiary rather than a pre-established amount.

The subsidy scheme is fully financed by government's budget, and subsidies can cover household's water consumption between a range from 25 to 85 percent for up to 15 cubic meters/month. The scheme is practically managed by municipal governments that distribute subsidies according to regional quotas determined yearly by the Ministry of Planning (Mideplan). Such quotas are established according to needs, tariff levels, and profile

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12. There is vast literature on subsidies and cross subsidies among which it is worth mentioning Antonio Estuche, Vivien Foster, Quentin Wodon, *Accounting for Poverty in Infrastructure Reform, Learning from Latin America's Experience*, The World Bank, February 2002 that describes options to establish subsidies even in countries with very limited fiscal capacity.

13. The new pricing system was introduced gradually as from 1990, and charges rose by an average of 90% in real terms between 1990 and 1994. The price rise was steeper in areas with higher costs, exceeding 500% in some cases, and by 1998 average regional water rates ranged from US ¢43 to US ¢121 per m<sup>3</sup> of consumption.

## Instruments for Promoting Access to Infrastructure Services

Instrument	Advantages	Disadvantages
Imposing universal service obligations	Articulates the nature of social objectives toward the sector.	Requires complementary and coherent definitions of connection targets, access costs, and sources of subsidy funding to be operational.
Defining connection targets	Forces a concrete definition of realistic coverage targets. Can be monitored and enforced by use of financial penalties. Ensures that unprofitable customers are served.	Requires symmetrical obligation on users to connect, which limits freedom of choice. Attention must be given to affordability of connection charges if tariffs are to be met.
Using low-cost technologies	Offers consumer an appropriate balance between cost and quality.	May lead to reduced quality of service.
Providing credit for connections	Does not require external source of funding.	If provided by private operator, may increase risk exposure of operator. If not provided by operator, requires collaboration of microcredit institutions.
Cross-subsidizing connection costs	Does not require external source of funding and spreads cost over a large population (connected households have greater ability to pay than unconnected ones). Equitable if connections were provided free before privatization.	The unconnected population must be small relative to the connected population.
Subsidizing connections	Targets subsidy funds to low-income individuals. Administrative costs are relatively low as a proportion of subsidies awarded. For community-level subsidies, competitive forces can be used to keep costs down.	Requires government financing and is relatively costly per household connected. User co-financing should be required to ensure commitment.
Obliging dominant utilities to provide alternative supplies	Ensures that a public alternative is available to households that are unable to connect to the network.	Except in the case of telephones, the evidence suggests that even poor households prefer private connections. Communal supply points tend to be unprofitable, and therefore need to be closely regulated.
Allowing licensed entry of alternative suppliers	Provides choice to consumers. Increases competitive pressure to the dominant utility.	May make investment unattractive to the dominant utility. May be difficult to regulate small suppliers to ensure adequate quality of service.
Promoting collaboration between dominant utility and alternative suppliers	May improve quality of supply to communities lacking connections to the dominant utility. May reduce commercial risk to dominant utility of serving marginal communities.	Requires careful regulation, as dominant utility may lack incentives to collaborate. Alternative suppliers may form local cartels.

Source: Antonio Estache, Vivien Foster, and Quentin Wodon, *Accounting for Poverty in Infrastructure Reform, Learning from Latin America's Experience*, World Bank, February 2002.

**Chile Water and Wastewater Privatization Process**

In 1998, Chile began the privatization of its 13 state-owned water and wastewater utilities. The government chose to sell shares in each of the 13 utilities through a competitive auction, while concurrently floating 10 percent of the shares on the local stock exchange and distributing another 10 percent of the company to employees. The government retained a partial shareholder in each utility.

The first utility offered for sale was Esvial, the second largest water company serving 320,000 customers in the southern coastal city of Valparaiso. Shares representing 35 percent of the company were sold for US\$138.4 million to a consortium comprised of:

- Chilean electricity distributor, Enersis; and
- Anglian Water (now AWG).

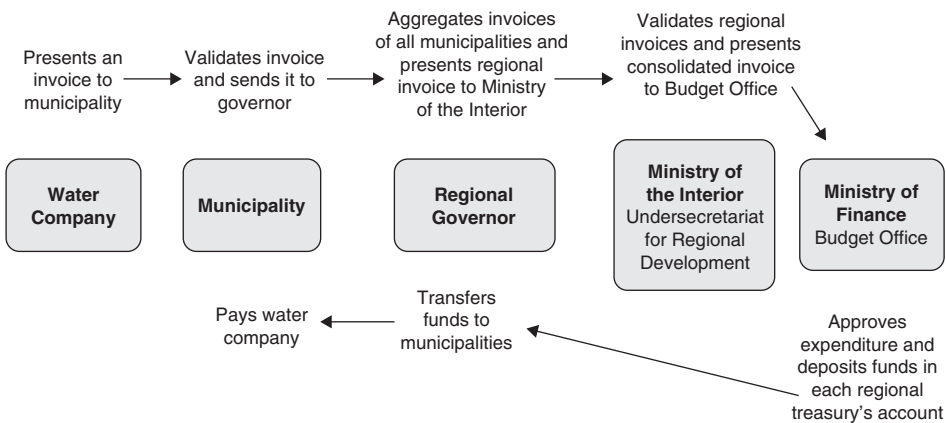
Under the privatization scheme, 10 percent of the shares were distributed to employees and a further 10 percent were publicly offered on the local stock exchange. The remaining shares (45 percent) were retained by Corfo, the national development agency involved with the privatization process. AWG has since bought out its partner’s stake and purchased other shares to have a combined stake of 40.6 percent.

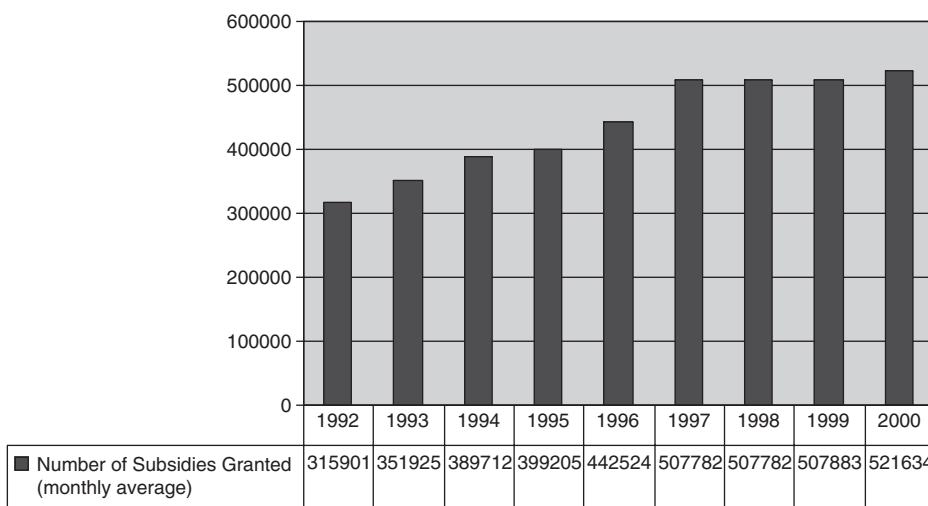
*Source:* Water and Wastewater Markets, Investors and Suppliers, Ontario SuperBuild Corporation, 2002.

of households—based on detailed survey which includes personal interviews with households. The water companies bill users net of the subsidy amount, then billing municipalities for the amount covered by the subsidy. Hence, municipalities are clients of the service providers.

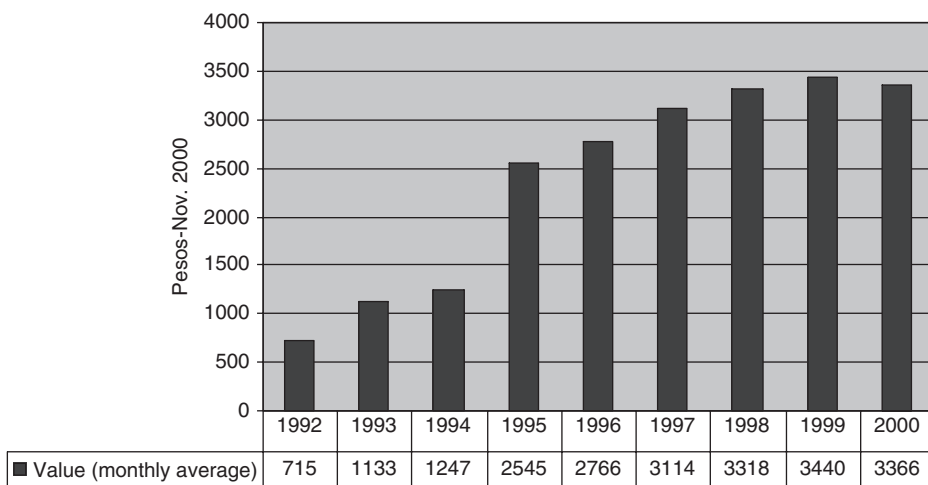
The subsidy program is funded from the annual budget of the central government, which allocates resources to regional governments. These, in turn, distribute the available funds among their municipalities. The municipalities pay the subsidies directly to the water companies, and customers are billed for the difference.

**Figure 2.5. Structure and Functioning of the OBS Scheme in Chile**

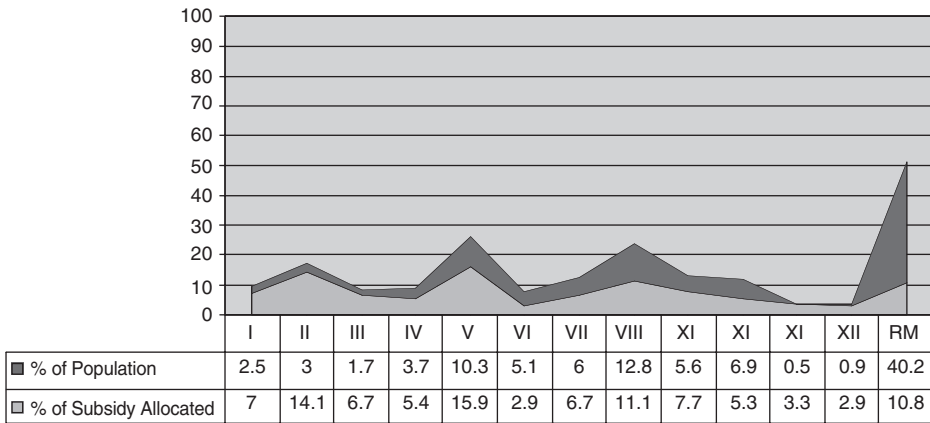


**Figure 2.6. Number of Subsidies Granted (monthly average) 1992–2000**

Once eligibility is established through a scoring system called CAS (this surveying tool is based also on direct interviews with households), households apply to their respective municipality to obtain a subsidy. Subsidies are normally renewed yearly for up to three years before a household must reapply. Apart from eligibility, the subsidy is granted to beneficiaries under the requirement of no payment arrears pending with the service provider—arrears were cut from 7.9 percent in 1990 to 2.9 percent in 1994.

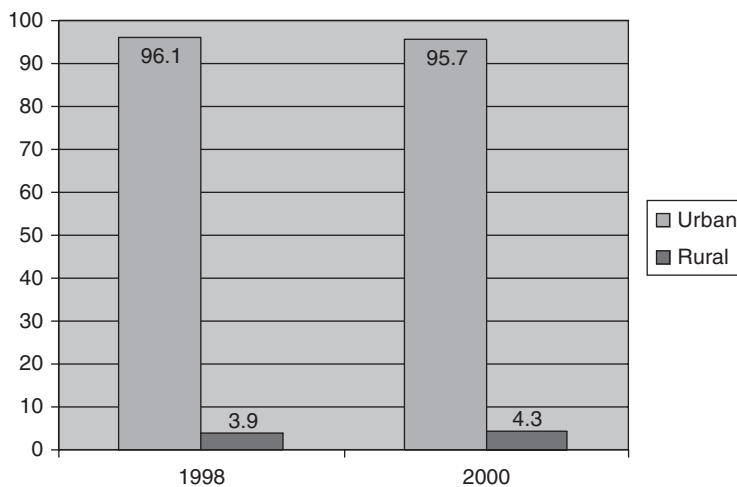
**Figure 2.7. Value of Subsidy (monthly average) 1992–2000**

**Figure 2.8. Percent of Subsidy Allocation and Population by Region, 1998**



In the three-year period from 1998 to 2000 both the number and average value of subsidies have been stabilizing, progressing towards a balance which follows a gradual growth since the introduction of the subsidy (Figure 2.8 and Figure 2.9). This is symptomatic of many trends that have been observed in Chile since the introduction of the subsidy. First, there has been a “learning” period to improve the design of the subsidy and fine-tune it, to better target the beneficiaries (initially the subsidy was equal to 50 percent of the bill, up to a consumption of 10 m<sup>3</sup>). In August 1991 a subsidy range was introduced, from a minimum 40 percent to a maximum 75 percent of the monthly bill for consumption up to 15 m<sup>3</sup>. The purpose of this amendment was to provide greater relief in regions where rate

**Figure 2.9. Distribution of Subsidies by Area, 1998–2000**





rebalancing would lead to larger price increases. Regionally differentiated subsidies were implemented for the first time in 1993). Second, the regional differentiation has been accompanied by a need-basis model introduced in 1994 through regulatory changes: economic need was included as a determinant of the subsidy, widening the range to 25–85 percent, and setting a new maximum subsidizable consumption from 15 m<sup>3</sup> to 20 m<sup>3</sup>. Finally, the gradual increase in the price of water may have contributed to an initial lack of interest in applying for the subsidy.

By better designing the subsidy, the government succeeded in meeting the challenge of addressing the different regional needs in the country through distributing the subsidy across the many regions (although most of the subsidy has been concentrated in urban areas).

The viability of the public-private interaction is also stressed by the relatively high rate of returns of the many water companies operating across the country. In 1994 the average rate of return on capital among public water companies was 6.3 percent, with the profitability of individual firms ranging between –4.5 percent and 13.2 percent. In 1998 the rate of return on equity for the public sanitation companies ranged from –6.9 percent to 11.9 percent with an average of 6.6 percent.

#### *Contract Transparency Assurance and Monitoring (COTAM) System*

The establishment of a PPP requires a comprehensive negotiation process due to the mixed nature of the agreement involving both the private and public sector. In addition, the presence of social goods and implications (i.e. access, quality and cost of services to the poor) entails a higher degree of sophistication of such process.

As many representatives of client countries had expressed in many occasions, many PPPs would benefit from improved efficiencies in the event that partnerships were negotiated and agreements were achieved in a more transparent and comprehensive way. In many cases, the agreements necessitate renegotiation stemming from changes in market conditions and for the sudden materialization of issues that have been underestimated during the negotiation of the contract.

There are many factors that in some instances can affect and even undermine the viability of PPPs. First, local authorities—especially at the municipal level—may have limited capacity in negotiating contracts and partnerships, hence preventing the public sector from fully reaping the benefits of PPPs. Second, the private sponsors of the PPP may lack a thorough understanding of the local market and its potential and limitations. Third, the negotiation process itself may be distorted due to inadequate information sharing mechanisms among the partners involved, leading to lack of transparency in the final agreement. Finally, contract negotiations may be burdened by complex and poorly understood administrative procedures that may exacerbate the lack of transparency of the proceedings. These rigidities have the potential of distorting the nature of the partnership, hence altering its delicate balance of risk allocation and beneficial impact.

Only by providing objective brokering and facilitation is it possible to overcome such barriers to more transparent and balanced PPP agreements. To this extent, the presence of a contract negotiation and performance monitoring system would reduce the risks of information asymmetry among the negotiating parties of the PPP, ensuring appropriate knowledge sharing and proper negotiation of the many issues necessary to successfully implement viable partnerships.

A Contract Transparency Assurance and Monitoring (COTAM) system would allow a third party to be present during contract negotiations between private investors and local governments in order to:

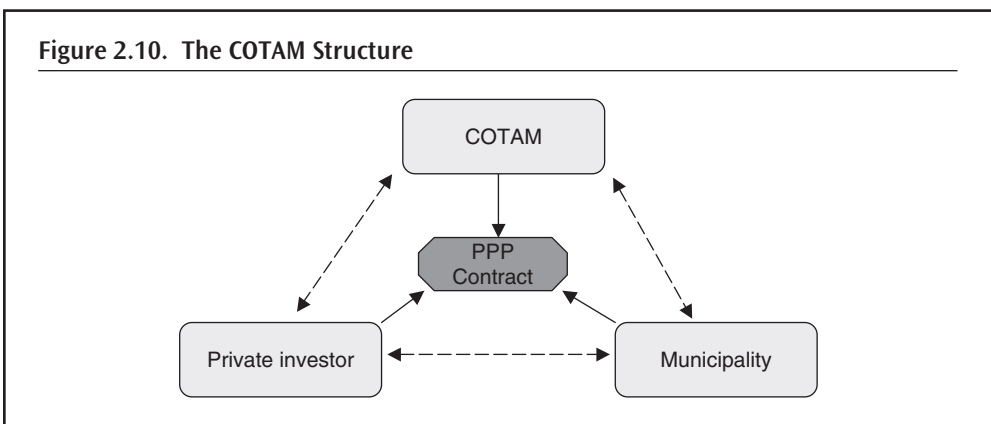
- Ensure transparency of the many steps of the negotiation process;
- Facilitate clarity and certainty of the contract and its many clauses; and
- Provide a monitoring mechanism to evaluate contract implementation compliance implementation according to contract milestones and timeline negotiated *ex ante* by the parties and specified in the agreement.

COTAM would be neither a party to nor a signatory of the contract, but would ensure appropriate knowledge sharing between the parties to guarantee that information circulates openly during negotiations. In some instances, it could well be the case that contracts run astray because parties “forget,” or rather more likely deliberately choose to ignore certain key elements during negotiation. The nature, structure and functioning of this independent body would depend on the institutional setting of any given country to ensure that adequate measures are taken to identify the most suitable structure for a COTAM facility in the recipient country.

COTAM would also become a valuable framework within which to negotiate potential upgrades of the agreements or renegotiate a few components of the contract subject to revision depending on certain events or scheduled deadlines. Moreover, COTAM could serve as a forum for informal settlement of potential disputes among the parties, thanks to its familiarity with the issues and its involvement in the many steps of the process, prior to resorting to formal procedures.

In the initial stages of the PPP, COTAM would become the focal point to which the contractual parties will refer for transparency. Over time, COTAM would become the platform to overcome bottlenecks and setbacks due to information asymmetry among the parties. In this context, the COTAM System contributes to *ex ante* control of PPP transaction, supporting the parties in improving quality at entry.

Overall, by being an third-party facilitator, the COTAM facility would provide unbiased services and knowledge to the parties of the PPP, identifying strengths and weaknesses,



### The Institutional Framework for PPP: The Example of the United Kingdom

Many OECD countries have been encouraging PPPs to reap the manifold benefits of involving the private sector in the provision of public services, such as easing public finance, improving performance of service providers and enhancing quality of service. Among Western European countries, the UK is often recognized as a precursor of the public-private model thanks to long and successful history in finding alternatives to the mere public finance model. The UK example shows how effectively the PPP approach can be implemented in a EU context.

Understanding the need to find alternative ways to finance infrastructure projects without heavily relying to public finance, the UK has pioneered the hybrid model of public-private partnership through the Private Finance Initiative (PFI) launched in 1992, following the abolition in 1989 of the rules severely restricting the use of private capital for the funding of public assets.

The PFI Network was developed by the Private Finance Unit of the Office of Government Commerce's to provide one-stop access to comprehensive information about PFI and assist the public sector PFI community to exchange information and to work more effectively. The PFI unit is supported in the promotion of PPP by the Private Finance Unit of the Treasury Department (HMT) that has policy responsibility for PPPs in respect of procurements using PFI techniques. HMT Private Finance Unit works closely with departments and other administrations to provide advice and guidance on strategic issues related to PPP.

The establishment of a Treasury Taskforce brought a coordinated and standardized approach to key commercial issues, notably through the publication of guidelines for use in PFI-type projects, which helped to improve efficiency.

The UK experience is helpful to understand the value of transparency and standards in negotiating and structuring PPP deals. The establishment of PPP units in the central government has supported the successful implementation of PPPs across sectors and regions in the country. The central PPP unit in the Treasury and Office of Government Commerce act as referring points for PPP units within the other layers of the public administration, such as ministries, agencies and local governments that rely on tested guidelines and standards when structuring and negotiating a PPP agreement.

assessing abilities of the parties involved, developing and negotiating the public-private partnership. COTAM may not be limited to providing supportive services related to the technical knowledge of the project and the legal background in public-private partnerships, but could also provide support in building creative financing arrangements. However, COTAM should not have any regulatory and supervisory ambitions, as these are left to pertinent governmental agencies (see UK example below).

An informal survey<sup>14</sup> has been conducted among advisory service providers<sup>15</sup> in Eastern Europe to understand what has been the experience of local advisors assisting both the public and private sectors in structuring and negotiating PPP deals. Many of the respondents have stressed the low capacity among municipal and local authorities in properly

14. The informal survey has been carried out through telephonic interviews and meetings in the period of January and February of 2004 with advisory service providers in EU accession candidate countries. Although non exhaustive, the surveyed firms are representative of the advisory service provision business. The sample includes a variety of firms, both local and international providing advisory services on various issues related to PPP, such as legal, tax and accounting issues.

15. For confidentiality reasons the corporations and individuals interviewed are not explicitly mentioned in this study. The names of corporations and individuals surveyed can be disclosed upon request and subject to a disclosure and confidentiality agreement between the requestor and the corporation.

**Table 2.3. Number of PPP in the UK—  
Breakdown by Year 1987–2003**

Year	No. of deals	Capital value (£m)
1987	1	180
1988	0	0
1989	0	0
1990	2	336
1991	2	6
1992	5	518.5
1993	1	1.6
1994	2	10.5
1995	10	666.82
1996	37	1552.85
1997	61	2187.59
1998	85	2694.86
1999	88	2385.01
2000	106	3661.01
2001	73	2083.06
2002	66	7639.29
2003	17	11584.21
2004	7	21.11
Total	563	35528.41

Source: Private Finance Initiative Index, Signed Project List, 2003, available at [http://www.hm-treasury.gov.uk/media/D6678/pfi\\_signed\\_list.xls](http://www.hm-treasury.gov.uk/media/D6678/pfi_signed_list.xls) last visited March, 15, 2004.

Note: case study based on many supportive material, among which:

Public Private Partnership, UK Expertise for International Markets, IFSL, 2003

PPP in the UK: Progress and Performance, IFSL, 2003  
Literature available at PFI Network—<http://pfi.ogc.gov.uk/>

- Cost and revenue structure of the Facility.
- Capacity building and technical assistance requirements.

structuring PPPs despite appropriate levels of awareness about their potential. In addition, there is a general divide among the EU accession candidate countries on both capacity and readiness in PPP. For instance, some countries, such as Hungary and the Czech Republic, have already fully utilized the potential of PPPs to meet their investment needs in infrastructure, while other countries are still exploring ways to take advantage of project financing despite accelerated transition process.

*Key Issues to be Addressed in the Feasibility Study.* Open questions to be addressed as part of feasibility study include:

- Institutional location:
  - (i) Within or outside the public sector (Court System, Ministry of Justice), or
  - (ii) Within existing professional frameworks or apparatuses (notaries, Chamber of Commerce, Arbitration Council or Association, and so forth).
- Management and organization: what kind of professionals would participate in the COTAM.
- Role in contract negotiations and monitoring.



# Implementing the Alternative PPP Framework

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## PPP Framework Adaptability to Country Circumstances

While its various components are designed to work in synergy, the alternative PPP framework can be adapted flexibly to meet a wide variety of country circumstances in ECA.

At one end of the spectrum, in the new EU member countries of Central Europe, there is no need for a foreign exchange risk allocation framework for PPI because macroeconomic and fiscal policies are already oriented toward entry into the Euro zone at the 2007–2008 horizon. At the same time, EU membership generates strong pressures to undertake the local infrastructure investments required to meet EU environmental and other directives by the end of the agreed transition period. The clash between the size of these local infrastructure investments and the tight fiscal constraints imposed by Maastricht convergence criteria, coupled with the local counterpart matching requirements of EU structural funds, creates powerful incentives to rely on PPI to finance these investments. In several new member countries, the narrow headroom for new general government borrowing precludes reliance on the public finance model, and PPI is the only option left open to governments.

Given these circumstances, several elements of the proposed alternative PPP framework may be attractive to the new EU member governments of Central Europe. While accession may to some degree facilitate equity investments by traditional operators/investors in local infrastructure transactions, the need to attract private equity investors remains strong given the size and the risk profile of the required investments. While exit opportunities for private equity investors will improve over time as a result of the countries integration in the EU single financial market, the narrowness and shallowness of domestic capital markets will continue to limit their exit opportunities over the medium-term. The development of second-round local infrastructure investment trusts remains an attractive option to open up exit opportunities for first-round investors, and to build a bridge between equity

finance for local infrastructure investments and the portfolio diversification needs of rapidly developing institutional investors in this country group. At the same time, the need for policy risk mitigation and for contract transparency and monitoring instruments remains strong as improvements in contract enforcement and dispute resolution frameworks will take time to be implemented. By contrast, the need for output-based aid will progressively diminish in this country group as increases in per capita incomes generated by the integration in the single market improve the ability of the population to adjust to cost-recovery tariffs.

In EU candidate and association countries, the need for a foreign exchange risk allocation framework for PPI is generally low as governments pursue tight macroeconomic and fiscal policies as part of their EU accession or association strategy. However, in countries marked by recent macroeconomic instability and investors' concerns about policy reversals, a foreign exchange risk allocation framework may be a prerequisite to sustainable PPI. Across this country group, the need for PPI is very strong as governments begin to take the full measure of the size of the local infrastructure investments required to meet EU environmental and other directives, while the imperative for fiscal discipline ahead of accession, coupled with the local counterpart matching requirements of EU pre-accession funds, places severe constraints on general government finances in general and local government finances in particular. In the face of traditional operators/investor reluctance to book equity in emerging markets, governments in this group face strong pressures to create the conditions to attract private equity investors in local infrastructure transactions. At the same time, the narrowness and shallowness of capital markets in EU candidate and association countries generates a strong need to develop alternative exit opportunities for first-round private equity investors, and to link equity finance for local infrastructure transactions with the portfolio diversification needs of emerging institutional investors. Although reforms of contract enforcement and dispute resolution frameworks are under way as part of EU accession and association strategies, private investors have a strong interest in accessing policy risk mitigation and contract transparency and monitoring instruments, as improvement in the contractual framework will only take place over the medium to long-term horizon. Also, given the significant incidence of poverty in many regions within the group, output-based subsidy schemes designed to ease the transition to cost-recovery tariffs for low income households will play a key role in achieving sustainability of PPI in the countries of the group.

In the CIS group, countries face a legacy of massive capital investment misallocation inherited from the Soviet era, and the transition to the market is leading to far-reaching changes in labor markets and in the distribution of the population across regions and their cities. This translates into large local infrastructure expansion investment needs in growing regions and cities, and into consolidation and rationalization investment needs in shrinking regions and their cities, in addition to the large rehabilitation investments that are required across the board following years of neglect of local infrastructure. With many CIS governments maintaining tight macroeconomic and fiscal policies, the headroom for borrowing to finance these investments on the account of sub-sovereign governments is limited. Therefore, governments in this group are taking steps to encourage PPI in local infrastructure transactions. Because the PPI framework is relatively new and because of initial negative experiences in some countries, this group is likely to be particularly affected by the withdrawal of traditional operator/investors from emerging markets. Therefore, a

**Table 3.1. World Bank Group Instruments**

PPP framework component	Financing instrument	WBG entity
Local Infrastructure Investment Trust (LIIT)	Equity	IFC
	Quasi-equity	
	Debt	
Insurance/Guarantee to Cover Sub-sovereign Breach of Contract Risk	Policy Risk Insurance Facility	MIGA
	Partial Risk Guarantee Facility	IBRD
Output-based subsidy scheme	Budget loan	IBRD
Contract Transparency and Monitoring System	TA loan	IBRD

proactive approach to the development of first-round and second-round equity investors in local infrastructure transactions appears to be on the critical path to the development of PPI in the group. In addition, weaknesses in the framework for contract enforcement and dispute resolution generate a strong need for policy risk mitigation and contract transparency and monitoring instruments. Finally, because of the high incidence of poverty in many countries of the group, output-based subsidy schemes would need to be developed to mitigate access and affordability problems for low-income households following the transition to cost-recovery tariffs.

### World Bank Group Instruments to Support the PPP Framework

The World Bank Group is well positioned to support the implementation of the proposed alternative PPP framework through a range of equity, debt, guarantee, and policy risk insurance instruments (Table 3.1).

The Local Infrastructure Investment Trust (LIIT) could be supported by IFC through equity, quasi-equity and/or debt. MIGA could establish a policy risk insurance facility covering sub-sovereign breach of contract risk in the case of sub-sovereigns with middle policy risk. IBRD could provide a partial risk guarantee facility to cover sub-sovereign breach of contract risk in the case of sub-sovereigns with high policy risk. The output-based subsidy scheme could be financed through an IBRD budget loan on a declining basis. Finally, the implementation of the contract transparency and monitoring system could be supported through a technical assistance loan from IBRD.

### A Programmatic Approach to PPP Framework Implementation

Although the various components of the PPP framework are ultimately meant to work in synergy, the PPP framework implementation strategy should be designed flexibly, taking into account the specific macroeconomic, fiscal, financial, contract enforcement/dispute resolution, institutional, and poverty incidence characteristics of each country.



To this end, PPP framework implementation would be structured around a programmatic approach. Following an initial PPI assessment, a broad agreement would be achieved with the Government on the main dimensions of the alternative PPP framework in the country and on the range of instruments that could be deployed by to support its implementation. The agreed components of the program would then be implemented through specific projects, each focusing on one specific instrument.

The programmatic approach would be initiated through a PPI assessment. The PPI assessment would take as a point of departure an in-depth survey of investors past experiences and expectations regarding PPI in the country. The survey would encompass traditional operators/investors, private equity investors, and institutional investors (insurance companies, pension funds, and mutual funds), both domestic and international. Based on the results of the investor survey, the assessment would identify the key impediments to private investor participation in local infrastructure transactions in the country, and would identify the instruments that are on the critical path to remove these impediments within the particular socioeconomic, financial, contract enforcement/ dispute resolution, institutional and poverty incidence conditions of the country. Based on this analysis, the PPI assessment would propose a strategy for the development of the alternative PPP framework in the country.

Following up on the PPI assessment, the government would establish a coordination unit to manage the development and monitoring of the various components of the program. Each program component would be implemented by a range of public and private entities. The LIIT would be implemented by private sponsors and fund managers, with possible minority participation by the Government. The PRI/PRG would be implemented by the Ministry of Finance. The OBS schemes would be implemented by Technical Ministries under the guidance of the Ministry of Finance. The COTAM would be implemented by an independent entity with representatives from various PPP stakeholders.

# TECHNICAL APPENDIXES

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# Municipal Infrastructure Investment Needs in Selected ECA Countries

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The EU Accession process is accelerating the adoption of international standards for municipal utilities and services. Yet, national and local authorities in EU accession candidate countries are under extreme pressure to absorb the *acquis communautaire* and align their environmental standards to European Union levels. The transition towards more sophisticated environmental and quality levels is pushing the candidate countries to adopt monitoring systems, establish rules and develop action plans to ensure that both quality and quantity of service provision will be met.

Such challenge poses immense financial requirements for candidate and recently acceding countries, which in many cases has been difficult to quantify. In 1997, a desk study carried out for the European Commission Directorate General Environment estimated the amount of environmental investment required in the Central and Eastern European applicant countries to reach EU compliance at around €120 billion (EDC 1997). In a more recent study, the Danish Ministry of the Environment has estimated figures to approximate the investment requirements for selected accession countries in complying with EU directives for municipal services and utilities.

Investment needs in local infrastructure for Central and Eastern Europe are often said to be of massive proportion, although it is difficult to estimate exact amounts. One reason for heavy investments needs is the pressure on most countries in the region to comply with EU and international environmental requirements, typically related to water, waste water and sewerage systems. The other reason is related to the high level of decapitalization of existing systems, mostly district heating, which need to be rehabilitated, modernized and upgraded.

Environmental compliance pressures on EU accession candidate countries can be illustrated through estimated waste management compliance investment costs provided

**Table A.1. Waste Management Compliance Costs and Waste Volumes for Selected EU Accession Candidate Countries**

Country	Estimated compliance cost in € mil.	Waste volume in mil. tons, 1998		
		Municipal	Hazardous	Non-hazardous
Czech Republic	6,600 to 9,400	4.6	3.9	35.7
Estonia	6,600 to 9,400	0.56	6.2	7.0
Hungary	4,118 to 10,000	5.0	3.9	70
Latvia	1,480 to 2,360	0.60	0.11	n.a.
Lithuania	1,600	1.5	0.24	6.9
Poland	22,100 to 42,800	12.3	1.11	132
Slovak Rep.	4,809	3.9	1.7	n.a.
Slovenia	2,430	3.9	1.7	n.a.

Source: European Federation of Waste Management and Environmental Services (FEAD), *FEAD Contact*, Volume 6, Issue 3, October 2001.

in Table A.1. The scale of investments for these countries ranges between €50 and 80+ billion. Municipal waste is a significant portion and requires local infrastructure investments.

Given the different methodologies used to assess the current scenario and evaluate the investment needs, these figures have to be considered preliminary and indicative of what the financial needs really are. For example, in November 2001, Poland's cost of meeting the EU urban waste water treatment requirements was estimated at €12,592 million, and the cost of meeting the landfill and recycling obligations estimated at u8,306 million. These estimates were double the figures developed in 1999.<sup>16</sup>

Focusing on the needs to improve treatment of urban waste water and sewerage, which is the common and acute problem in many urban areas of most ECA countries, the investment needs are estimated in the Table A.2. For Poland, the figure is estimated at some €6.5 billion while for Romania, the cost of sewerage infrastructure investments only amounts to almost €1.4 billion. When extrapolated and compared to Poland the total figure for Romania (waste water and sewerage) is at some €3.6 billion.

As highlighted by the estimates presented above, the candidate countries have huge financial requirements to tackle the investments needed to improve their municipal services and utilities. In many instances, the estimates account for several hundreds of million Euros that most countries simply cannot afford due to stringent public budget constraints.

Turning to solid waste and its combustion in pertinent plants, the estimated investment costs in Poland are to the tune of €3.5 billion and in Romania at €0.4 billion. This is compared with other ECA countries, both accession and candidate in the Table A.3.

Waste water, sewerage and solid waste require investments under the compliance pressure from the EU requirements. In many cases the requisite installations and plants are non-existent and need to be built. Many municipalities are also under additional

16. Danish Cooperation for Environment in Eastern Europe (DANCEE), Danish Ministry of the Environment, *The Environmental Challenge of EU Enlargement in Central and Eastern Europe*, Thematic Report, 2001, p. 40.

**Table A.2. Estimated Costs for Implementing Urban Waste Water Treatment Requirements Including Sewerage for Selected EU Accession Candidate Countries**

Country	Estimated investment needs in € mil.	Population in mil. (2000)	Estimated per capita cost in €
Bulgaria	2,056	8	257
Czech Republic	1,164	10	116
Estonia	168	1	168
Hungary	1,678	10	168
Latvia	579	2	290
Lithuania	435	4	109
Poland	6,414	39	164
Romania	1,385 (sewerage only)	22	63
Slovak Rep.	499	5	100
Slovenia	914 (sewerage only)	2	457
Total	15,292	103	148 (ave.)

Source: Danish Cooperation for Environment in Eastern Europe (DANCEE), Danish Ministry of the Environment, *The Environmental Challenge of EU Enlargement in Central and Eastern Europe, Thematic Report*, 2001. RIVM Report 481505022, *Technical Report on Enlargement*, November 2001.

Communication of the European Commission, *The Challenge of Environmental Financing in the Candidate Countries*, COM(2001) 304 final, 8 July 2001.

World Bank, *Czech Republic. Toward EU Accession*. Washington, D.C., 1999.

World Bank, *Hungary. On the Road to the European Union.*, Washington, D.C., 1999.

World Bank, *Poland Towards EU Accession*, Washington, D.C., 2000.

**Table A.3. Estimated Costs for the Implementation of Large Combustion Plants Requirements for Selected EU Accession Candidate Countries**

Country	Estimated cost in € mil.	Population in mil. (2000)	Per capita cost in €
Bulgaria	1,627	8	203
Czech Republic	1,858	10	186
Estonia	312	1	312
Hungary	878	10	88
Latvia	43	2	21
Lithuania	74	4	18
Poland	3,456	39	89
Romania	402	22	18
Slovak Rep.	796	5	159
Slovenia	180	2	90

Source: Danish Cooperation for Environment in Eastern Europe (DANCEE), Danish Ministry of the Environment, *The Environmental Challenge of EU Enlargement in Central and Eastern Europe*, Thematic Report, 2001. RIVM Report 481505022, *Technical Report on Enlargement*, November 2001.

**Table A.4. Investments Needed to Comply with the IPPC Directive for Selected EU Accession Candidate Countries<sup>17</sup>**

Country	Investment needs in € mil.
Bulgaria	3,261
Czech Republic	3,725
Estonia	489
Hungary	1,761
Latvia	90
Lithuania	44
Poland	6,927
Romania	806
Slovak Rep.	1,596
Slovenia	50
Total	18,478

*Source:* Danish Cooperation for Environment in Eastern Europe (DANCEE), Danish Ministry of the Environment, *The Environmental Challenge of EU Enlargement in Central and Eastern Europe, Thematic Report*, 2001.

RIVM Report 481505022, *Technical Report on Enlargement*, November 2001.

of which 208 are municipally controlled. Many DH plants are integrated with power production (co-generation).

Although some research has been done, there are no definite estimates in this area. Generally, however, the need to improve and overhaul local district heating systems is acute and growing. Recent World Bank estimates for Bulgaria indicate investment needs to the tune of \$300 million. Given the similarities between Romania and Bulgaria and the size difference, with Romania having almost 2.5 times the population of Bulgaria, one could envisage that the investment needs in Romania are to the tune of \$750 million. In Poland these figures would probably range around \$1.2 billion.

In addition to municipally-related local infrastructure compliance, there is also a pressing need in the industrial sector to improve pollution control. Investments in this area required in Poland are estimated to the tune of almost €7 billion while Romania at slightly below €1 billion.

Severe fiscal constraints exacerbate the situation by forcing local authorities in candidate countries to seek financing outside of the public budget while lacking the capacity to negotiate proper contracts and undergo much needed restructuring of municipal services corporations. As the estimates suggest, the huge investment needs require municipalities across the region to explore alternative means to sustain the modernization of local utilities.

pressure to rehabilitate their district heating systems—generation, transmission, metering, and regulation. These systems are in place, but are very inefficient and plagued by inefficient boilers and substations and by high energy losses (over 30 percent) due to ineffective pipe insulation, corrosion and general lack of proper maintenance. They have also many uncontrolled extensions, which lead to unbalanced systems. On the consumption side the district heating systems lack metering devices, which necessitates the use of normative tariffs and excessive consumption based on area and not on actual consumption. The DH systems are quite extensive, for example in Romania there are 231 cities connected to DH systems with 21,000 km of pipes operated by 238 operators

17. The Integrated Pollution Prevention and Control Directive of 1996 includes the set of common rules on permitting for industrial installations. The Directive aims at minimising pollution from various point sources throughout the European Union. All installations covered by *Annex I* of the Directive are required to obtain an authorisation (permit) from the authorities in the EU countries. The permits must be based on the concept of Best Available Techniques (or BAT), which is defined in Article 2 of the Directive. In many cases BAT means quite radical environmental improvements and sometimes it may be very costly for companies to adapt their plants to BAT.

# Country Ratings Outlook and Investment Climate in Selected ECA Countries

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Country ratings vary considerably across the three countries under study, broadly in line with their degree of convergence with the Euro Zone. However, this observation has to be tempered by differences in credit ratings outlook and in creditworthiness indicators between the three countries.

While Poland has achieved investment grade rating, its ratings outlook is negative due to significant slippage in public finances and slowdown in structural reforms in the past year, demonstrating that the process of convergence to the Euro zone is not linear, even among first train candidate countries. By contrast, Romania remains one notch below investment grade but its ratings outlook is positive thanks to its stable macroeconomic policies and rapid pace of structural reforms as part of its EU accession strategy. Turkey's credit rating remains well below investment grade, but the government's recent progress in stabilizing the economy and in implementing structural reforms translate into a stable ratings outlook (Table B.1).

By contrast, creditworthiness indicators by Institutional Investor and Euromoney show a sharp distinction between Poland on the one hand and Romania and Turkey on the other. This suggests that, despite improvements in its sovereign rating, investors do not yet perceive Romania as a convergence play (Table B.2), as demonstrated by the recent evolution of the government bond yield curve.

Based on 2002 Heritage Foundation data, the pattern of *government intervention* in the economy suggests that most of the EU Accession countries in the ECA region have achieved relatively low levels of intervention. While these scores would need to account for a range of factors to assess the quality and impact of intervention (rationale, cost effectiveness and professionalism of Government institutions, regulatory usefulness for a conducive investment climate), the general rule is that the lower the level of intervention, the stronger the economic performance of the country. The lowest score was achieved by Hungary ("1"),



**Table B.1. Sovereign Ratings**

S&P credit ratings—local currency and foreign currency risks <sup>18</sup> (Jan. 2004)		
	Local currency	Foreign currency
Poland	A-/Negative/A-2	BBB+/Negative/A-2
Romania	BB+/Positive/B	BB/Positive/B
Turkey	B+/Stable/B	B+/Stable/B

followed by the Czech Republic, Estonia, Latvia, Lithuania, and Poland (all “2”). All these countries have been comparatively successful in attracting foreign investment. Indicators of government intervention were less favorable for Turkey and Romania with correspondingly outlying levels of political risk.

Most of the countries have relatively high *barriers to entry*, stressing the difficulties of entering the market or establishing a business. In most instances, the lengthy and costly process of setting up a business entity is the major barrier to entry. Romania and Turkey present the worst score in the group for the barriers to entry variable (16.0 and 13.0, respectively), with Poland scoring better in this respect.

As to *property rights protection*, most countries score high on a relative scale. Poland performs better than the average, Turkey represents the median value, and Romania has the lowest degree of protection of property rights among the group. It is unclear, however, whether these scores account also for enforcement capacity, which is a problem across the region.

The rankings on *quality of regulation* highlight the successful alignment of legislation with international standards in EU accession countries. Nevertheless, questions remain over the actual implementation and enforcement of this legislation. Poland confirms its

**Table B.2. Country Creditworthiness Indicators**

	Institutional investor credit rating*	Euromoney country credit worthiness rating**
Poland	60.1	64.6
Romania	33.8	46.5
Turkey	33.8	43.8

Ranks from 0 to 100 the chances of a country’s default, with 100 representing least chance of default. Data are for September 2002.

\*\* Ranks the country creditworthiness; rating ranks from 0 to 100 with 100 representing the least risk of investing in an economy. Data are for September 2002.

Source: World Development Indicators, 2003.

18. Country risk considerations are a standard part of Standard & Poor’s analysis for credit ratings on any issuer or issue. Currency of repayment is a key factor in this analysis. An insurer’s capacity to repay foreign currency obligations may be lower than its capacity to repay obligations in its local currency due to the sovereign government’s own relatively lower capacity to repay external versus domestic debt. These sovereign risk considerations are incorporated in the debt ratings assigned to specific issues. Foreign currency issuer ratings are also distinguished from local currency issuer ratings to identify those instances where sovereign risks make them different for the same issuer.

Table B.3. Indicators of Investment Climate

Countries	Degree of government intervention <sup>19</sup>	State sector (as % of GDP) <sup>20</sup>	Entry barriers <sup>21</sup>	Degree of property rights protection <sup>22</sup>	Quality of regulation <sup>23</sup>	Index of political risk <sup>24</sup>	Index of judicial system efficiency <sup>25</sup>	Index of corruption <sup>26</sup>
Bulgaria	3.0	30%	10.0	3.0	4.0	26.0	0.3	4.8
Czech Republic	2.0	20%	10.0	2.0	3.0	22.5	1.3	3.8
Estonia	2.0	25%	n.a.	2.0	2.0	26.0	0.0	2.8
Hungary	1.0	20%	8.0	2.0	3.0	19.5	0.3	3.0
Latvia	2.0	35%	7.0	3.0	3.0	25.0	0.3	3.5
Lithuania	2.0	30%	10.0	3.0	3.0	25.0	0.7	3.8
Poland	2.0	30%	11.0	2.0	3.0	22.0	0.0	2.3
Romania	3.0	40%	16.0	4.0	4.0	31.5	0.3	4.5
Slovak Rep.	3.0	20%	12.0	3.0	3.0	25.0	1.0	3.8
Slovenia	3.0	35%	9.0	3.0	2.0	19.5	0.3	2.0
Turkey	2.5	n.a.	13.0	3.0	4.0	40.5	n.a.	n.a.

19. High scores imply high levels of Government Intervention. *Source:* Heritage Foundation (2002).

20. Figure is the residual from private sector share of GDP. Data are for 2000 (except Moldova and Russia for 1999). *Source:* EBRD (2001).

21. High scores imply difficult to enter. *Source:* Number of Procedures Needed to Start a Business (Djankov et al., 1999). Data are for 1999.

22. High scores imply weak protection. *Source:* Heritage Foundation (2002).

23. High scores imply poor regulation. *Source:* Heritage Foundation (2002).

24. High scores imply greater risk. *Source:* ICRG (June 2002). [100-ICRG political risk score].

25. High scores imply poor performance. *Source:* EBRD (2001) (4-score on legal effectiveness).

26. High scores imply greater corruption. *Source:* Nations in Transit (2001).

**Table B.4. Indicators of Corruption<sup>27</sup>**

Countries	Corruption (ICRG, March 2002)	Corruption (KKZ) <sup>28</sup>	Corruption (nations in transit)
Bulgaria	2	-0.2	4.75
Czech Republic	3	0.3	3.75
Estonia	3	0.7	2.75
Hungary	3	0.7	3
Latvia	2	0	3.5
Lithuania	2.5	0.2	3.75
Poland	2	0.4	2.25
Romania	2	-0.5	4.5
Slovak Republic	2.5	0.2	3.75
Slovenia	3	1.1	2
Turkey	2	-0.5	

**Table B.5. Indicators of Judicial Efficiency<sup>29</sup>**

Countries	EBRD Rating of legal extensiveness (company law)	EBRD rating of legal effectiveness (company law)	Law and order tradition (ICRG, June 2002)	Rule of law (KKZ)
Bulgaria	4-	4	4	0
Czech Republic	4-	4-	5	0.6
Estonia	4-	4	4	0.8
Hungary	4-	4-	4	0.8
Latvia	4-	3+	5	0.4
Lithuania	4-	4-	4	0.3
Poland	3+	4-	4	0.6
Romania	4-	4	4	0
Slovak Republic	3	3+	4	0.4
Slovenia	3+	4-	5	0.9
Turkey	n.a.	n.a.	4	-0.2

27. A high score indicates a good scoring.

28. KKZ (Kaufmann, Kraay, and Zoido-Lobaton) indicators are oriented on a scale from -2.5 to 2.5.  
Source: World Bank Governance Indicators Database.

29. A high score indicates a good scoring.

**Table B.6. Contract Enforcement—Basic Indicators<sup>30</sup>**

Countries	Number of procedures	Duration (Days)	Cost (% GNI per capita)	Procedural complexity index*
Bulgaria	26	410	6.4	69
Czech Republic	16	270	18.5	65
Estonia	n.a.	n.a.	n.a.	n.a.
Hungary	17	365	5.4	57
Latvia	n.a.	n.a.	n.a.	n.a.
Lithuania	17	74	13.0	58
Poland	18	1,000	11.2	65
Romania	28	255	13.1	60
Slovak Rep.	26	420	13.3	40
Slovenia	22	1003	3.6	65
Turkey	18	105	5.4	38

\* The Procedural Complexity Index varies from 0 to 100, with higher values indicating more procedural complexity in enforcing a contract.

Source: Enforcing Contract Database, World Bank Rapid Response Unit, updated as of January 2003.

successful approach towards improvement of the overall regulatory framework by scoring better than Romania and Turkey, with both again lagging behind the group with the highest scores (higher scores imply poor regulation).

Based on the ICRG scores of *political* risk from mid-2002, a wide range of risk was identified within the focal countries of this study. While most of the group qualifies as “best performers,” in contrast, Turkey has the highest political risk scoring of the group at 40.5 percent, and Romania follows with 31.5 percent.

The issue of *corruption* has often been recognized as one of the more serious institutional and cultural challenges facing the ECA countries since the beginning of transition. Available data show how corruption is still felt as a major barrier to economic growth and private sector development.

Table B.5 presents rankings of *company law and the broader rule of law*. As it pertains to company law, Poland and Romania are rated well (Turkey is not rated). However, pertaining to the general rule of law, Romania and especially Turkey perform quite poorly.

30. The data on enforcing a contract are derived from questionnaires answered by attorneys at private law firms. The current mark of the data refers to January 2003. The questionnaire covers the step-by-step evolution of a debt recovery case before local courts in the country’s most populous city. The respondent firms were provided with significant detail, including the amount of the claim, the location and main characteristics of the litigants, the presence of city regulations, the nature of the remedy requested by the plaintiff, the merit of the plaintiff’s and the defendant’s claims, and the social implications of the judicial outcomes. These standardized details enabled the respondent law firms to describe the procedures explicitly and in full detail.

The indicators for contract enforcement reveal the major difficulties faced by litigants in enforcing contracts in the three countries. Poland stands out for the long, costly and complex procedure when compared to the other candidate countries. Despite advancements in other areas, Poland still lags behind Romania and Turkey as far as contract enforcement is concerned.

Such results indicate poor quality of the judicial system and its negative impact on private sector investment. In particular, the recent Investment Climate Assessment (ICA) for Poland has revealed a very rusty court system that is not appropriate to accommodate the needs of the private sector to settle quickly and efficiently commercial disputes. The 2002 BEEPs survey reveals two inefficiencies in the judicial system: delays in court proceedings and weak ability to enforce court rulings. Over 90 percent of the firms surveyed considered that the court system was never or seldom fast in resolving business disputes. About 70 percent responded negatively about the frequency of court decisions being enforced (World Bank 2003d).

# Trends in Private Participation in Infrastructure in Developing Countries

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In the early 1990s, the World Bank created the Private Participation in Infrastructure (PPI) database to track private sector provision and financing of infrastructure services. The database tracks public-private investments by sector and sub-sector, region, investment type and investment size, among other variables, and is the primary source of information for trends in private participation in infrastructure in low- and middle-income countries. This appendix relies heavily upon data derived from the PPI database and/or the book, *Private Participation in Infrastructure: Trends in Developing Countries, 1990–2001* (Izaguirre and others 2003) which summarizes this body of data.

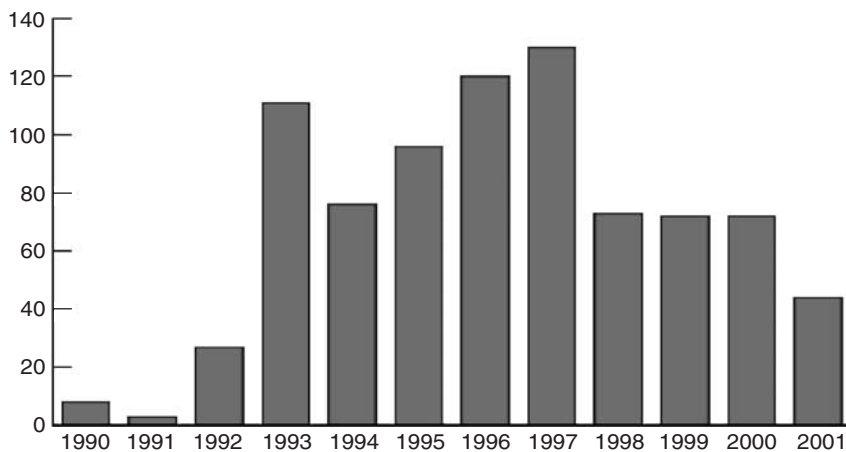
## Sectoral Overview—Electricity

Private investment in the electricity sector essentially began in the 1980s at the inception of privatization programs in Chile and a few other developing countries. The 1990s saw growth in investments to a peak of \$49 billion in 1997 when economic crises and heightened attention to risk elements cut short investments in developing countries. Figure C.1 presents this investment history by number of transactions, showing a run-up in investments to more than 120 transactions in 1997. Contrasting this with Figure C.2 shows a steadier growth in investment sizes up to a peak of \$49 billion, followed by a precipitous fall-off in 1998.

Figure C.2 also shows the predominance of divestitures and greenfield projects among investment transactions. Concessions only received much popularity in the peak year, 1997, but the fall-off in activity halted this trend.

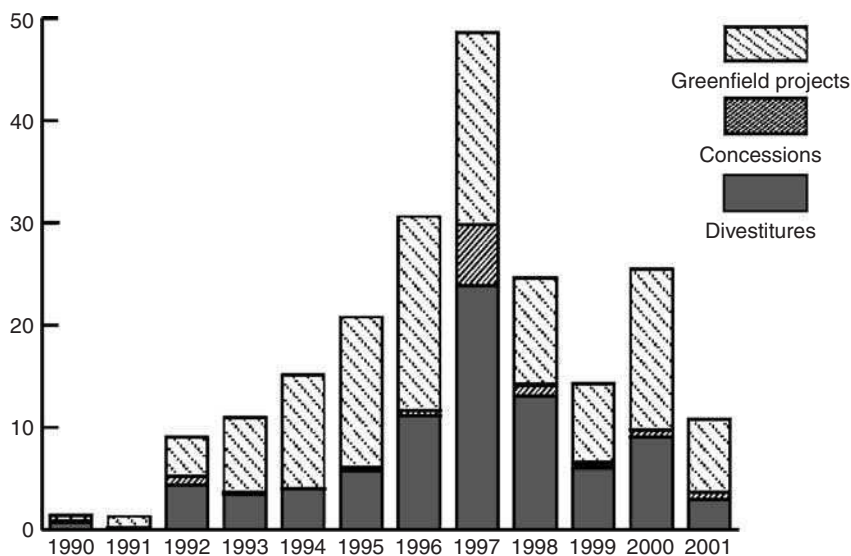
Figure C.3 presents electricity investments by region. The Latin America and Caribbean region dominated the period with 43 percent of total investments, and East Asia and the Pacific commanded a sizable portion at 32 percent of total investments. The ECA

**Figure C.1. Electricity Projects with Private Participation by Year of Financial Closure, Developing Countries, 1990–2001**

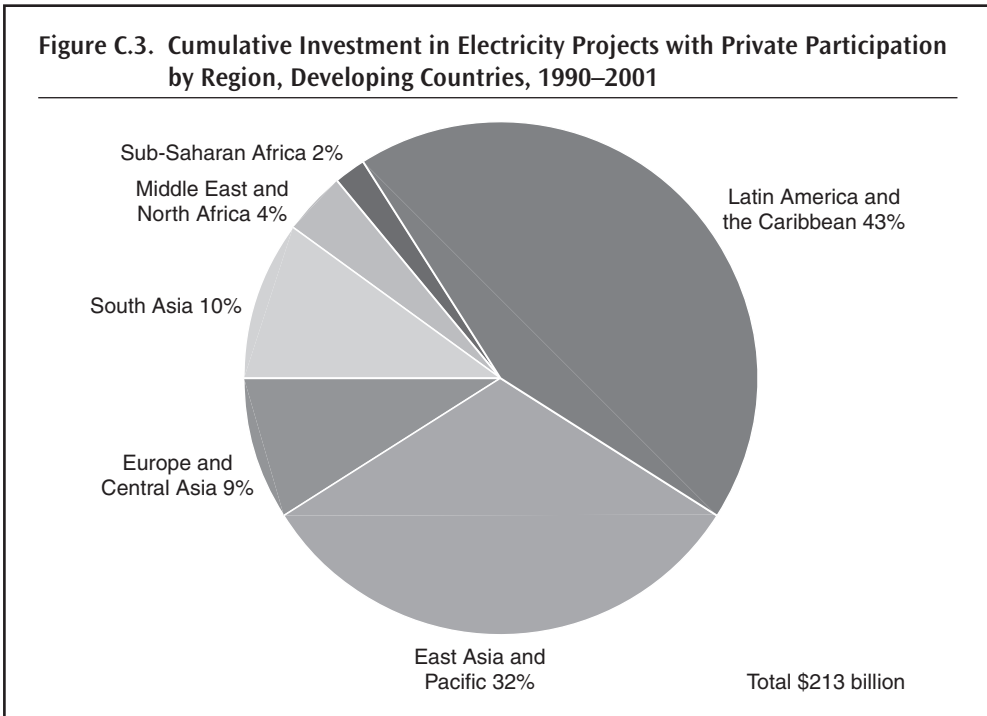


Source: World Bank, PPI Project Database.

**Figure C.2. Annual Investment in Electricity Projects with Private Participation by Type, Developing Countries, 1990–2001**



Source: World Bank, PPI Project Database.



*Source:* World Bank, PPI Project Database.

Region received only 9 percent of investments. Most activity in this region was confined to the 1995 to 1997 period and again in 2000, corresponding to the awarding to independent power producers of large greenfield projects in Turkey. Contributing to these peak years were the privatization programs in the Czech Republic and Hungary.

Finally, Figure C.4 shows a sub-sector categorization of electricity investments over the period 1990 to 2001. Power generation dominated the electricity sector with limited growth in investments in distribution and integrated utilities outside the period 1997 to 1999.

## Sectoral Overview—Water and Sewerage

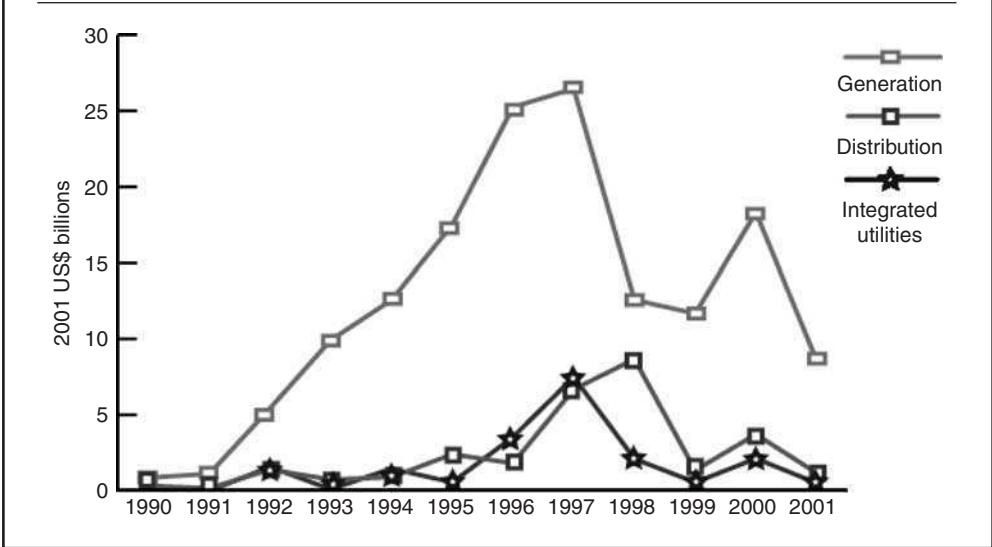
Attracting private finance to water and sewerage given the view of water as a public good, which creates resistance to tariff increases to levels sufficient to recover operational costs and which in turn increases the risk of long-term investments in such utilities.

Decentralization also contributes to the lagging popularity of this sector for private investment. Water and sewerage services commonly remain under local or provincial domain, bodies which are generally less experienced with private participation in infrastructure.

The annual investment in water and sewerage projects with private participation is presented in Figure C.5. At first glance, the investment pattern seems somewhat sporadic, but correcting for anomalous privatization campaigns in Chile, the investment pattern shows much smoother growth after 1994.

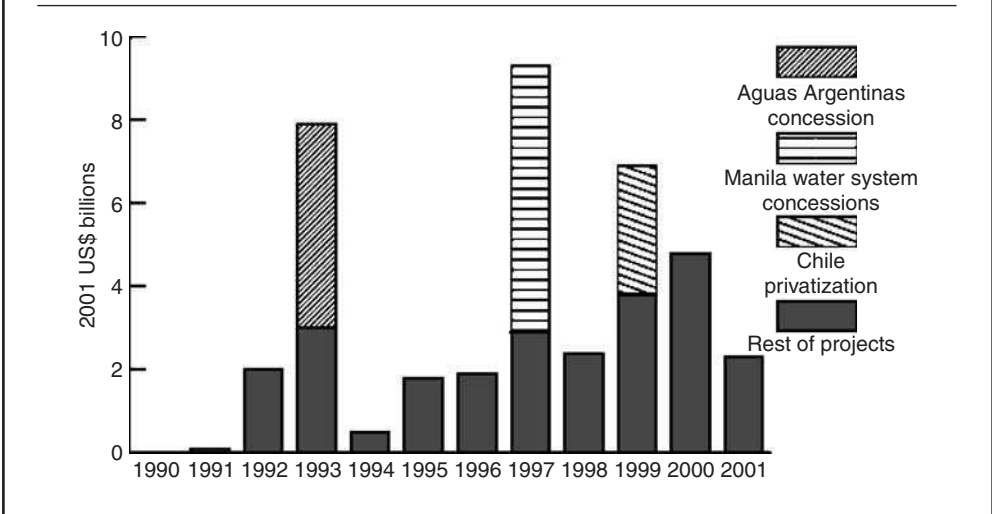


**Figure C.4. Annual Investment in Electricity Projects with Private Participation by Segment, Developing Countries, 1990–2001**



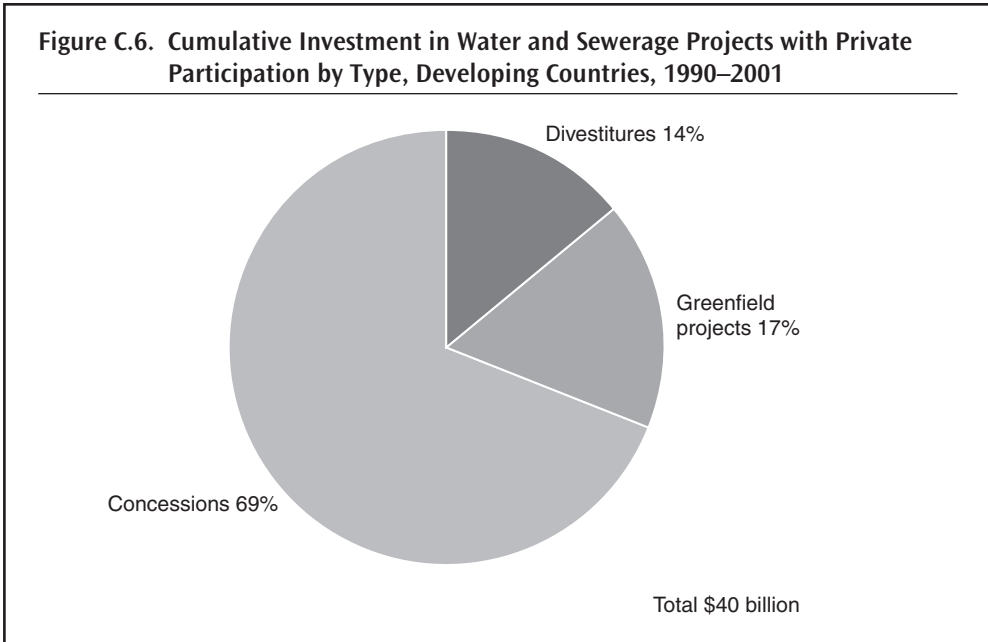
Source: World Bank, PPI Project Database.

**Figure C.5. Annual Investment in Water and Sewerage Projects with Private Participation, Developing Countries, 1990–2001\***



\*Note: Data refer to investment commitments.

Source: World Bank, PPI Project Database.



Source: World Bank, PPI Project Database.

Figure C.6 disaggregates investment data by type. While greenfield projects and divestitures were the most common investment types in electricity, in water and sewerage, concessions, comprising 69 percent of cumulative investment, were the popular vehicle. Greenfield projects and divestitures then showed comparably at 17 and 14 percent, respectively.

The dominance of concessions in water and sewerage reflects the transference of operational and investment responsibilities and risks to the private sector while retaining legal ownership amidst the public sector.

The breakdown of cumulative investment by region parallels that in electricity: Latin America and the Caribbean dominated with 52 percent of total investments, East Asia and the Pacific with 38 percent, and Europe and Central Asia with 8 percent.

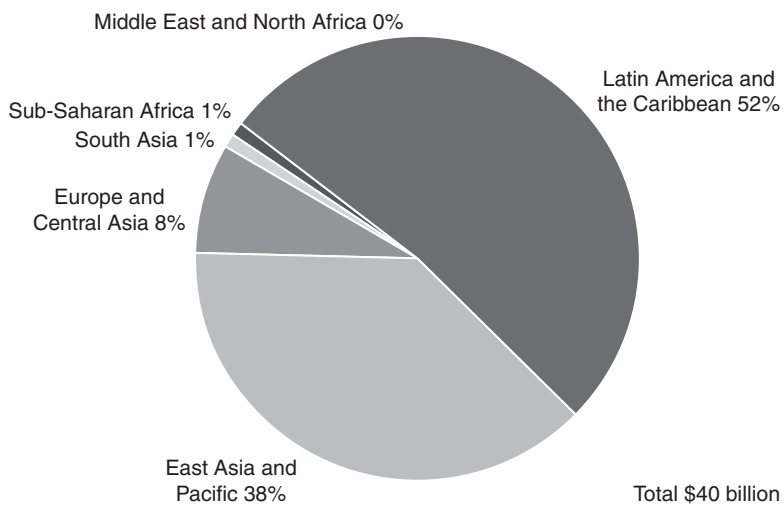
## Regional Overview

The Europe and Central Asia (ECA) Region attracted \$97 billion in cumulative commitments over the period 1990 to 2001, making it the third-ranking region among developing regions. Investments rose to \$15.7 billion in 1997, falling off with the rise of economic crises and consequent investor caution. Investments reached a new peak in 2000 with \$22.8 billion in total investments, driven chiefly by telecommunications privatizations in Poland and the construction of large power plants in Turkey.

Figure C.9, which presents the number of projects with private participation in each year over the period 1990 to 2001, reveals that the number of transactions, excepting the 1993 voucher privatization program in the Russian Federation, remained relatively level despite the aforementioned peaks in investment dollars.

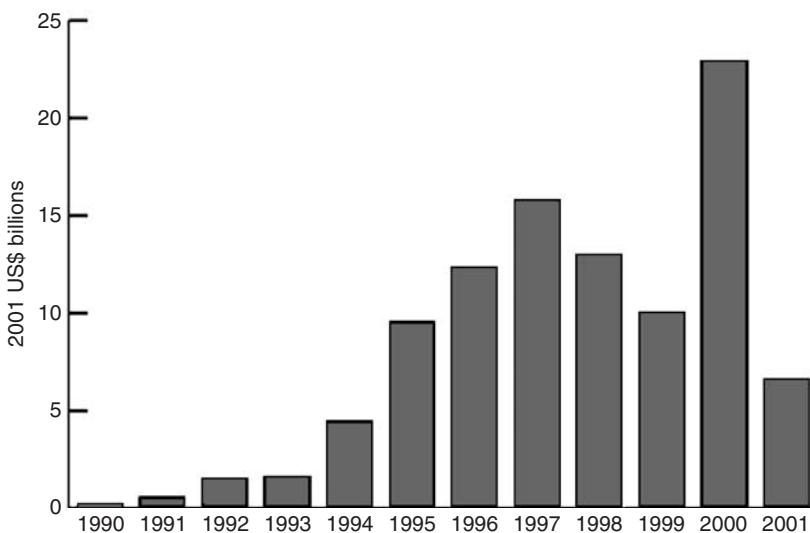
Figure C.10 categorizes cumulative investments from 1990 to 2001 by sector and, within each sector, by type as well. Telecommunications and electricity, which led

**Figure C.7. Cumulative Investment in Water and Sewerage Projects with Private Participation by Region, Developing Countries, 1990–2001**

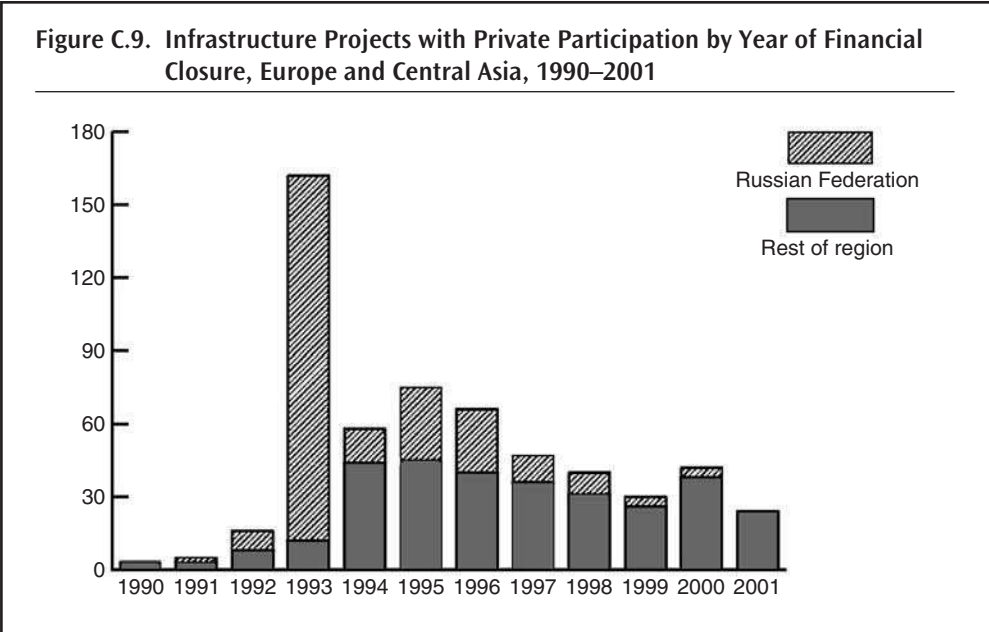


Source: World Bank, PPI Project Database.

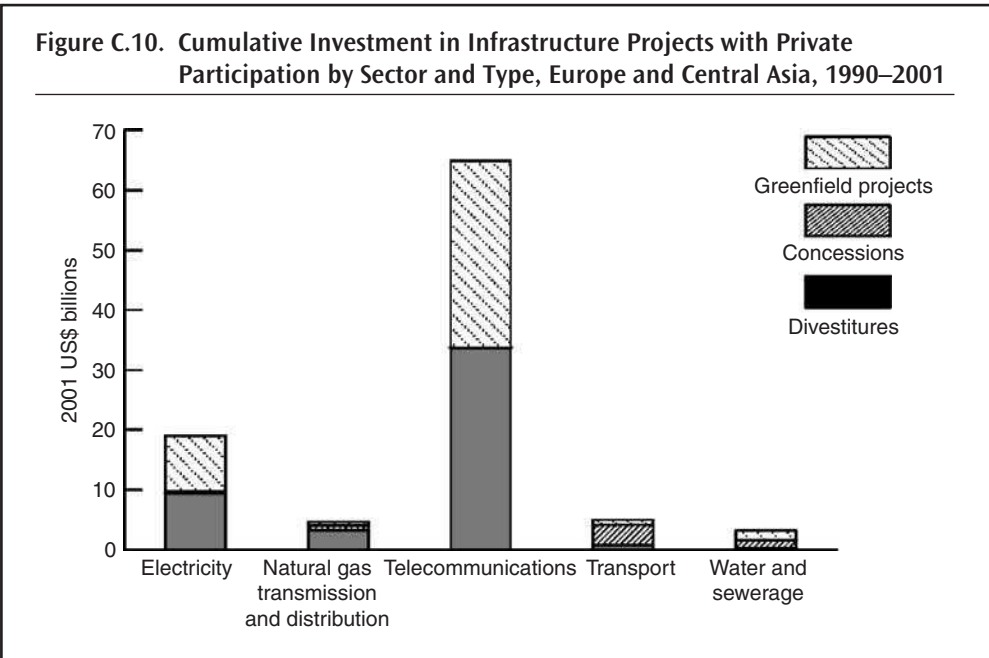
**Figure C.8. Annual Investment in Infrastructure Projects with Private Participation, Europe and Central Asia, 1990–2001**



Source: World Bank, PPI Project Database.



Source: World Bank, PPI Project Database.



Source: World Bank, PPI Project Database.

investments with approximately \$65 billion and \$20 billion, respectively, were equally structured as either greenfield projects or divestitures. Concessions were employed only in the areas of water, transport and, to a limited extent, in natural gas.

Private participation in the ECA Region served integrally to redefine the role of the state, to improve the reform and commercial-orientation of infrastructure, and to comply with requirements for EU accession.

The investments of greatest scale, in a magnitude of \$1.4 to 2.2 billion, occurred in Turkey's electricity generation sector, strongly encouraged by the government's stance on private sector development at the mid and close of the 1990s. While projects in Poland were generally smaller, not exceeding \$500 million, they were more numerous, with 21 projects transacted during the period 1990 to 2002, compared with only 12 in Turkey and 4 in Romania over the same period. With the exception of one partial-divestiture, projects in Romania were transacted either as concessions or management contracts. Moreover, participants in this market were confined to traditional operator-investors versus more diverse investor participation in Poland and Turkey.

# Lessons from IFI/Private Sector Roundtables in Municipal Water Services in Central and Eastern Europe and Central Asia

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In April 2002 and July 2003, the Water Division of the World Bank, together with the OECD, hosted roundtables with traditional operators and operator-investors in the water sector to identify lessons from past experiences with public-private partnerships and to formulate improved approaches to such partnerships in the future. Following is a summary of the take-away lessons from these roundtables.

## Findings from the Roundtables

### *Project Design and Bid Process*

Investors exclaim, "...give the private operator the rights, which enables him to assume the responsibilities which are entrusted to him" (Posch & Partners). In other words, ensure the operator a sufficient period of presence and a form of remuneration which permits the investor to recoup his investment. In this way, investors can be more open to making investments.

Roundtable participants from the private sector insisted upon the creation of ownership and an equitable balancing of responsibilities and risks. They asked for the management of expectations such that the investors could bring about efficiency improvements while maintaining commercial return on capital. They note that these transactions compete with alternative uses of capital and that, therefore, managers still need to show returns on investments.

Investors also argued they are given insufficient time to develop a transaction yet face extensive negotiations and delays once they are committed to a project. They would like to

see IFIs take a more active role in conflict resolution and arbitration matters. It was suggested the IFIs or donor take an observer position on the board.

While improved competition is a development aim, fierce bidding competition, it was felt, is detrimental as it raises “fears” within the community about private sector motivations and encourages undercutting, which is unsustainable throughout the transaction life. Given the complexities of these partnerships and the underlying operations, and given the tenuous environments in which they are founded, “flagship models” with transparently negotiated contracts are preferred, both by operator-investors as well as some donors, with the idea that “success breeds success.”

### *Leverage Additional Private Finance*

Operator-investors asked for flexibility and innovation in financing and emphasized the need to mobilize local finance and alternative investors, either through combination with IFI instruments or through guarantees and contingent loans, for example. Investors also confided a nervousness surrounding claims recovery in the event of breach of contract since there was insufficient historical evidence to support the timely ability to recover. Finally, the education of local authorities and consumers was highlighted as important to the success of private sector participation.

### *Regulatory Reforms Needed*

Roundtable participants pointed out the hindering effect of frequently changing laws on private sector investment. Much disagreement ensued over the improvement and structuring of the regulatory framework surrounding private sector participation. Roundtable participants did agree, however, on the necessity of at least a minimum level of centralization in regulatory capacity.

Participants also pointed out the need for monitoring and benchmarking by a central agency and that IFIs and donors should serve in an advisory function.

## **Learning Lessons**

The roundtable findings echo those uncovered by this study through informal interviews with various categories of investors and through the review of existing surveys. The study’s key findings are listed below.

- **Current tariffs generate insufficient returns.**
  - Investors are unable to cover costs, parent company debt and host country dividends on currently negotiated tariffs.
  - Up-front agreements on return scenarios are needed, together with the understanding and support of civil society.
- **Contracts are frequently breached by sub-sovereign entities.**
  - Breach of tariff/return and power purchase agreements is commonplace.
  - Sub-sovereign contractual parties fail to perform under investment programs in terms of both capital outlays and timing.

- **Transparency at the local level is lacking.**
  - Regulators are not independent and are subject to conflicts of interest.
  - Partnerships require clear municipal involvement and well-defined roles.
- **Budgetary and political pressures create distortions against investors.**
- **Investments expose investors to long-term horizons with constrained exit possibilities.**
- **Investors are unable to achieve effective levels of management control and decision making.**
- **Dispute arbitration procedures are ineffective.**

The availability of long term equity to provide exit alternatives for growth investors remains a critical constraint to attracting investment capital toward the development of municipal infrastructure services. Moreover, given the common occurrence of contract breach, investors expect a remedy for the lack of enforcement of operational contracts between utilities and local governments. Sustainable or sufficient operational agreements, including tariff policies, together with civil society understanding and acceptance, are fundamental in investment decision-making. Finally, transparency and good faith in contract negotiations are critical to the formation of successful public-private partnerships.





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***Mobilizing Private Finance for Local Infrastructure in Europe and Central Asia*** is part of the World Bank Working Paper series. These papers are published to communicate the results of the Bank's ongoing research and to stimulate public discussion.

This paper presents an alternative framework for public-private partnerships (PPPs) that could revive the interest of various PPP stakeholders (central governments, local governments, private operators, and investors) in private participation in local infrastructure in Europe and Central Asia (ECA) and in other emerging markets. The study identifies the key impediments to private participation in infrastructure. It reviews recent trends in private participation in infrastructure (PPI) globally and in the ECA Region and assesses experiences by private investors of PPI in selected ECA countries. It also reviews investors' attitudes toward future PPI in ECA, drawing on key findings of existing surveys and on anecdotal evidence from interviews with private equity investors.

The study presents the key elements of the alternative PPP framework, including the Local Infrastructure Investment Trust (LIIT), the Political Risk Insurance(PRI)/Partial Risk Guarantee (PRG) facility against sub-sovereign breach of contract risk, the Output-Based Subsidy Scheme (OBS), and the Contract Transparency Assurance and Monitoring (COTAM) System. It concludes with an examination of the modalities of implementation of the proposed PPP framework, and possible World Bank Group support instruments.

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