7. Role of the private sector

There was a widespread belief in the 1990s that with sector reform and regulatory improvements the private sector should be able to finance and operate most of the infrastructure facilities in the region and on that basis the IFIs and development organizations sought to reduce their direct financing of public sector investments in infrastructure. Much of the infrastructure reform in the ECA region was thus driven by the objective of attracting and enabling private sector investment. Though the process was difficult and often frustrating, notable successes were achieved in attracting such investments. Investments in infrastructure projects with private participation in region during 1990-2004 amounted to about $139 billion covering about 550 projects. This compared with $375 billion in 1055 projects in the Latin America and Caribbean region and $200 billion in 767 projects in the East Asia and Pacific region.[72]

About 70% of the investments in the ECA region were in telecom, followed by energy (23%), transport (4%), and water and sewerage (3%). Bulk of the project investments involved divestiture (51%), followed by green field investments (43%), concessions (4%) and management contracts and leases (2%). The CEE countries had a share of 51% of the investments, followed by CIS (25%), Turkey (12.5%) and SEE (11.5%). The total privatization receipts at $42 billion amounted to less than 5% of the GDP of the region. Private participation in ECA infrastructure peaked in 2000 at around $25 billion and has declined subsequently to about half that level.

Electricity sector had attracted about $20.7 billion or about15% of the total regional private investments mostly in generation and distribution segments. Transmission systems generally remain in the public sector, the only slight variation being in the case of Georgia and Russia. In Georgia the transmission grid is under management contract, while in Russia, RAO UES, the apex power company which owns large hydro and thermal power generating units and the national grid at 500 kV and above has about 49% private shareholding of which about 30% is from foreign investors (see Box 7.1).

Bulgaria, Hungary, and Slovakia have privatized their entire power distribution systems. Several others such as Kazakhstan, Lithuania, Moldova and to a slightly lesser extent Czech Republic, Romania and Ukraine have transferred a significant parts of their power distribution sector for private ownership and operation. In Georgia one of two distribution companies had been privatized while the other is under management contract. In Albania the state owned utility manages the entire power system jointly with a management contractor. In Azerbaijan the power distribution systems have been transferred to private operation under a management contract, though the transaction is essentially a concession arrangement with investment obligations. Distribution privatization had taken place to some extent in Poland and Estonia also.

Kazakhstan has privatized in the mid 1990s most of its “national level” generating units, while in Hungary and Armenia more than 50% of the generating facilities had been privatized. Czech Republic, Poland and Georgia have privatized a notable percentage of their generation assets.

On the whole private sector participation in the power sector had been beneficial. The private operators generally succeeded in improving collections and reducing theft, improving liquidity in the system by paying in cash for the purchased power and certainly by making power supply a lot more reliable in the areas of their franchise. Tariff related disagreements were minor in CEE states and were quickly sorted out. In the CIS, these disagreements were more frequent and, at least in two cases, resulted in disinvestments. A contract dispute between the western investor (operating the power and heat

[72] The data in this section is from the PPI database of the World Bank

distribution systems in Almaty area) and the government on the level of collection losses to be allowed in computing supply costs resulted in international arbitration, and the exit of the investor with a compensation of $100 million in Kazakhstan. Another western investor covering Karaganda area in the same country also disinvested based on tariff related disagreements. In Georgia, the American investor in distribution (in the Telasi region) and generation (both hydro and thermal units), found it difficult to sustain improvements, (despite tariff adjustments) due to systemic nonpayment problems and sold his interests to RAO UES of Russia.

Private participation experience in the power sector of the region has provided several important lessons.[73] Unbundling and privatization ahead of ensuring payment discipline, cost recovering tariffs, and credible regulatory arrangements leads to serious problems for the investor and the sector. This is illustrated by the experience of a number of countries such as Ukraine, Georgia, Kyrgyz Republic and Kazakhstan. Privatization ahead of clear decisions on the desired sector structure (as in the case of Russia) makes it difficult to make desired structural reforms later (Box 7.1).

Box 7.1: Premature Privatization in Russia - Advantages and Constraints
In the early 1990s, Russian power sector was reorganized with RAO UES as the apex federal level power company owning 22 large thermal power stations and five large hydroelectric power generating companies, as well as the national power grid at 500 kV and above and about 72 Regional Energos serving the constituent oblasts or republics. These regional energos were vertically integrated utilities owning smaller thermal units (mostly CHPs) and hydro units, transmission grids at 220 kV and below and the distribution networks. The government owned 51% of the shares in RAO UES and the rest was by foreign investors (30%), institutional investors and individuals (19%). In turn, RAO UES was the largest shareholder in most Regional Energos with average shareholding of 49%. The rest of the shares in these companies were owned by private investors, some foreign investors and institutional investors and individuals. This structure gave RAO UES stability of management and a near complete control to improve the operations of regional energos. The success achieved by RAO UES in the governance of these energos and completely eliminating non-payment and substantially eliminating non cash payments is truly remarkable. However, further attempts to restructure the sector away from monopolistic set up to a competitive one involving the unbundling of RAO UES and the regional energos has been going on for several years now without much tangible results. Apart from other political obstacles, the premature privatization of the sector and the presence of private sector in the monopolistic set up is also a significant constraint to further reform, making it very complicated and difficult.

The sale of shares to private sector in RAO UES and in the regional electricity companies in Russia (even while they were monopolies) has made the further restructuring particularly difficult and complicated. This is also likely to be the case in respect of Czech Republic, where the utility CEZ has been partly privatized. It is interesting that both RAO UES and CEZ are active in acquiring power sector assets in the other countries of the region. Bulgaria on the other hand systematically tackled macroeconomic and sector problems related to losses and collections, decided on sector structure consistent with EU directives, unbundled the sector and privatized its entire distribution and a good part of generation assets in an orderly fashion.

Lack of adequate oversight on the conditions needed to maintain a competitive framework leads to fresh vertical re-integrations not conducive to competition. This happened in Georgia when AES the company owning Telasi distribution network was allowed to acquire generation assets. In Hungary, RWE and EdF have acquired both generation and distribution assets. Poland appears to favor the concept of “national champions” whereby a number of large generating units and some distribution areas are grouped together to form large and strong companies which can better withstand international competition than smaller generating companies.

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[73] For a more detailed discussion of these aspects, see Krishnaswamy and Stuggins (2003)

While the focus of privatization efforts on *strategic investors* from the west might have been appropriate in the early years, there is a need to look wider for local, regional and international investors from all parts of the world and for those who specialize in turning around poorly performing assets. The experiences in Georgia and Armenia present a striking contrast (Box 7.2) and provide lessons in the sequence of reform, and the need to look beyond the narrow group of the western strategic investors.

Box 7.2: Georgia and Armenia - A Study in Contrast

Georgian power sector was suffering from very levels of theft of power, nonpayment and corruption. Tariff levels were clearly inadequate to cover costs. However, unbundling and privatization were seen as the way of overcoming these. Telasi distribution network covering the national capital region was privatized to a western strategic investor, who was later also allowed to acquire hydro and thermal generating units with a total capacity of about 883 MW. Allowing the distributing company to acquire such a large generating capacity was not conducive to the objective of competition. However the level of corruption was so high, that the investor could not effectively overcome the problems of theft, nonpayment, social protection needs and staff indiscipline, despite higher tariff increases in the capital region with dense load than the rural areas with sparse loads. Systemic nonpayment problems in the economy affecting liquidity at the generation and wholesale market levels created major problems. This also coincided with major global setbacks for western energy companies and the investor sold all his assets to RAO UES of Russia and left the country. Georgia had not been successful in privatizing the remaining generation and distribution assets. It is managing them as well as the transmission grid and the wholesale market operation using management contracts. The sector is still in difficult conditions with collections running at about 50% and till recently operators were facing political interference when they attempted to disconnect the non-payers. The quality and reliability of supply continued to be poor. It is only recently the operator of the network outside Telasi distribution area has reported better cooperation from the government and some improvement in collections.

Armenia, on the other hand, improved collections to a level of 70% to 80%, adopted cost recovery tariff and laid solid institutional and regulatory foundations during 1995-2000 and had improved the reliability of power supply substantially, before it privatized its distribution. Its several attempts to privatize through competitive bidding limited to strategic investors did not succeed, because of the withdrawal of many western investors from the emerging markets, and it finally privatized its distribution assets to a financial investor specializing in turning around non-performing assets on the basis of a negotiated contract in 2002. The investor did remarkably well. Collections were improved to 96%, commercial (theft) losses were reduced to less than 5%. It raised the salaries of staff and introduced bonuses and incentives to reduce theft and with the active cooperation of the government disconnected any customer for payment default. Supply quality and reliability were significantly improved. The turn around was so good that the company was able to sell its assets and franchise to RAO UES of Russia at a price believed to be six times that of its acquisition cost. The power sector ceased to be a burden to the economy.

The Moldovan experience indicates that when part of the distribution is privatized and the other part is left in public sector, the latter is effectively and beneficially challenged by the former for efficiency improvements. The demonstrational effect appears to have been strong.

The *natural gas sector* attracted $11 billion or about 8% of the private sector investments in the region. The vertically integrated gas companies operating the entire gas network had been transferred to the private sector in Armenia, Estonia, Latvia, Lithuania, Moldova and the Slovakian Republic. In Hungary and Czech Republic, the gas sector had been unbundled into transmission and distribution segments and both had been privatized. In Bulgaria concessions had been granted in respect of municipal gas distribution systems in Sofia, Varna and a few other cities. Georgia has also private participation in the gas distribution sector through a swap of equity for gas related debts. In Russia the dominant gas company is Gazprom, in which the state has 50% of the shares plus one share. The rest of the shares are owned by individuals and institutional shareholders. In 2005, Romania succeeded in privatizing its two gas distribution companies following sector unbundling in 1998, establishing an independent gas sector regulator in 2001, achieving collection levels well over 90% and adjusting gas tariffs to cost recovery levels in the last three years and committing to reach border price levels for gas by 2007.[74]

Box 7.3: Demonstrational Effect in Moldova
Moldovan power sector was unbundled into five distribution companies and three of them were purchased by Union Finosa of Spain in early 2000. The other two could not be sold to the same party because of the legal prohibition of one company owning all distribution areas. Because of the changes in investment climate, attempts to privatize the other two units did not succeed and they were owned and operated as state owned entities. Union Finosa serving an area with 60% of the population achieved near 100% collections (all of it in cash). Supply interruptions had been substantially reduced. Tariff adjustments to cover costs and rebalancing them to reduce cross subsidies had been secured. Major efforts had been initiated to reduce the level of thefts. In all these aspects, the two state owned distribution companies appear to have kept pace with Union Finosa in a competitive spirit. As a result the sector has been fully monetized and the government has been relieved of the liability to pay for the imported energy. The demonstrational effect of private sector on the public sector in this country is considered remarkable and noteworthy. Source: Krishnaswamy and Stuggins (2003) and Lampietti (2004)

In the *district heating sector,* FYR Macedonia privatized the country's only district heating company to its employees. Private sector participation has occurred covering a notable part of the DH facilities in Czech Republic (70%), Estonia (70%), Lithuania (30%), Slovakia (30%), Hungary (15%), Latvia (10%) and Romania (5%). Private Participation has also occurred in Poland and Russia. In the latter country multi-utility companies such as Russian Communal Systems (RKS), Regional Communal Investments (RCI) and CES-Multyenergetika (CESM) are active in this sector. They handle the distribution of power, water, heat and gas and other housing and communal services. They seem to handle this business on the basis of "long term delegated management contracts combined with an undertaking of significant investment commitments". The term management contract here may cover a range of lease and concession arrangements as well.[75] Private participation in the heat distribution networks had generally been by way of concessions, leases or through joint-ventures with the municipalities. In CEE many DH systems operated by private companies are well managed. There have also been cases in which the investor had only short term interests and allowed the quality of service to fall behind publicly owned DH utilities. The experiences in Hungary (Debrecen Municipality) and Lithuania (Vilnius DH Company operated by Dalkia International) clearly indicate that both privately run DH systems and publicly run DH systems can work equally well.[76]

The *water supply and sewerage sector* attracted $3.8 billion or about 3% of the total private investment in the region. Private sector participation is extensive in Czech Republic where over 70% of the population is served by private water utilities. BOT type of contracts had been used in Hungary, Poland, Slovenia, Slovakia and Estonia. Three major cities in Romania and the capital of Bulgaria have private sector operated water supply and sewer systems. Other cities in SEE using private sector water concessions include Elbasan in Albania, Zagreb in Croatia and a small region in Kosovo. In the CIS BOT contractors operate waste water treatment plants in Moscow and St Petersburg. Management contracts are in use in some Russian, and Ukrainian cities as well as in Imisli in Azerbaijan and Yerevan in Armenia. Albanian water sector also uses management contracts in some areas. In Kazakhstan, local governments have privatized to domestic investors more than 20% of the service providers in the country. Management contracts have been used in Tajikistan and Turkey.

[74] Romania has both substantial domestic production and imports of gas.
[75] For a more detailed discussion of these companies see Peter Kelly, *Public-Private Partnerships in District heating: How Russian Cities can learn from International best Practice,* World Bank, 2005 (draft)
[76] Coming in From the Cold, IEA, Paris 2004

The experience of Czech Republic and Bulgaria under two high profile water and waste water system concessions are outlined in Box 7.4.

Box 7.4: Water Concessions in Czech Republic and Bulgaria
In Brno municipality of the *Czech Republic* a private company had been granted the concession to operate the water and waste services in the mid 1990s. The levels of service and collection performance (over 99%) were good even before the grant of concession. The company maintained and improved the quality of service to EU standards in the last five years and the high collection levels. It reduced the labor strength from 720 to 600 and modernized and improved the efficiency of the system operation by introducing (a) bulk system meters to isolate losses in specific distribution zones; (b) computerization for the control of pumping stations and treatment plants; and (c) a Geographic information system. However the unaccounted-for water remained at 25%. Investment for the replacement of pipes which might be needed for this is not within the scope of concession and is the responsibility of the municipality. Also the level of losses might be considered acceptable or economic. The investment responsibility of the company appears to be limited to rehabilitation and expansion of the water treatment plant, which the company had carried out during 2000-2005. The water and waste water services in the Sofia municipality of *Bulgaria* have been operated by an international company on the basis of a concession granted in 1999. The firm was selected *on the basis of bids for the lowest tariffs.* The company introduced a range of modern methods to improve the efficiency of operation and customer service. It reduced the labor strength by about 31% while a number of activities have been outsourced. Collections have improved from 82% to 89% during 2001-2003, but additional expenses by way of service centers and payment outlets to achieve this may have neutralized the increased revenue. Unaccounted-for-water remains at a high 64% despite extensive replacement of consumer meters and improvements to billing system. The reason for losses may thus be technical. The company is installing district or bulk metering to identify the zones with high network losses. The company is under an obligation to reduce the level of unaccounted-for-water to 36% by October 2006, failing which it would face heavy penalties. This would perhaps lead to contract renegotiation. The contractor has an investment obligation of $150 million over 15 years. Of this, it had made an investment of $40 million in rehabilitation of head works and network. Compliance with stringent service quality standards appears to have been reasonable.

Armenia had a successful management contract experience, leading to a long term leasing arrangement for Yerevan water and waste water system (Box 7.5)

Box 7.5: Armenian Experience in Management Contract for Water Supply
A management contract was awarded to an Italian firm on the basis of international competitive bidding for managing the water and wastewater system of Yerevan in Armenia in 2000. It was initially for four years and was later extended for one more year. Payment was based partly on performance and partly on fees. Performance was linked to targets for lowing electricity consumption, and improvements to metering, hours of supply and revenue collections. During the contract period the contractor was able to reduce electricity consumption by about 30%. The volume of water covered by metering improvements more than tripled. In the course of three years, hours of daily supply increased by more than 50%. However with increased hours of supply the number of breaks in the water and wastewater systems also increased by 40% to 50%. Presently, more than 50% of the consumers get 24 hour water supply. Collections increased from 20% to near 100%, partly helped by the government's Debt Forgiveness Law, which allowed writing down debts when the consumers signed the water supply agreements. Though there were serious complaints regarding water quality in the earlier years of the contract, service quality improved considerably and water quality monitoring became better and secure after the recent installation of modern chlorination equipment. Based on this experience the government has decided to lease the future operation of the system to a contractor to be selected by competitive bidding. Investments would be financed by the government partly with the help of loans from IFIs and other official sources. Tariffs will have to be raised and efficiency of collections sustained to raise the balance of investment resources. Source: WB Project Appraisal Document (2005) and Fichtner (2004).

Poland's experience in the operation of municipal water and waste water system of Bielsko-Biala through a joint stock company with shareholding by the municipalities and an international investor proved sustainable and successful, and is worthy of replication in similar circumstances (Box 7.6)

Box 7.6: Polish experience in Public private Partnership through a Joint Stock Company

The water and waste water systems of the municipality of Bielsko-Biala in Poland are owned and operated by the Joint Stock Company Aqua S.A. in which the municipality of Bielsko-Biala holds 51% of the shares. A private investor United Utilities (Poland) B.V holds 33% of the shares. This company from Netherlands was previously known as International Water UU Holdings B.V. The remaining shares are held by three adjoining towns and nine adjoining communes to whom the services of this company extend. The association of International Water with this company dates back to 1999. The company itself had been operating from 1990. The company is managed by two-member Management Board and a five-member Supervisory Board in terms of the Company Law of Poland. It enjoys considerable autonomy of operation. It caters to about 37,350 consumers, 81% of whom are households. Its meter calibration and replacement program, billing and collection systems are so good and the tariff adjustments so timely and efficient that the per capita consumption of water had been reduced by about 60% to 105 liters/day in the last 9 years. Aqua had been continuously expanding its service area and picking up bulk consumers to offset the effects of such demand management measures. Because of the increase in sales and reduction of staff, its labor efficiency has improved to 1.4 employees per 1000 customers compared to 2.8 employees in 1996 and much better than the level of 2.5 employees planned in 1996. Tariff increases for water and waste water had been 51% and 68% higher than what was planned in 1995. Its electricity consumption came down by 15% during the last several years. The company maintains high levels of customer service and service quality standards and is able to comply with EU standards. It has consistently been able to make profits and declare dividends and generate more than the forecast level of net internal cash to pay for its investment needs. This resulted in its reducing its withdrawal from the World bank loan. Its cash position is so strong that it initiated prepayment of the World Bank loan. Its shares are traded actively in the Polish secondary trading market.

Source: World Bank's Implementation Completion Report (2005), Audit Report of the Company (2004)

In the *roads sector,* private participation is limited to a few toll road (motorway) concessions in Hungary, Poland and Croatia. In Hungary, it became necessary to protect the toll road operator from the volume of traffic risk by transferring it to the state. Thus toll based concessions have been replaced by payments for road availability (Box 7.7).

Box 7.7: Hungary's Experience in Motorway Development

Hungary awarded the first concession in 1993 for the design, finance, construction and operation of the motorway M1/M15, providing a link with Austria. Initially, the project involved 100% financing by private investors with the traffic risk allocated fully to the private sector, a revenue-maximizing toll rate and a competitive tender. The 35-year concession contract was finalized with a consortium of French, Austrian and Hungarian investors. Financial closing was achieved based on a limited recourse project finance package of Euro 320 million with a 80%/20% debt/equity mix. Government support for the project included preliminary design and building permits, environmental clearance and land acquisition. The M1 opened in January 1996 on schedule and within budget. However, actual traffic volumes were 45% below forecast and the maximum toll rate allowed under the contract (about Euro 0.15/km) corresponded to about a one day worker's salary. Following legal action initiated by the Hungarian Automobile Club, a court ordered a 50% reduction in the toll rate. This caused a 30% revenue shortfall which resulted in insolvency and default of the consortium on its debt in January 1998. In April 1999, the company's outstanding debt was transformed into government debt and the consortium was substituted by a fully state owned special purpose vehicle. Given lower toll rates, traffic volumes increased, while revenues fell 45% year-on-year.

Another BOT concession contract was signed for the construction of the M5 highway with a French-German led consortium. Toll rates were significantly lower at Euro 0.07/km. As a result, in the first year of operation, average traffic and revenue collected met almost 100% of forecast. However, once again the Hungarian Automobile Club complained about toll levels, as a result of which the government replaced the toll system by an availability payment scheme. Under the agreement, the state pays AKA a fixed annual availability payment which covers the project's debt service. Performance under the availability contract is monitored based on a penalty point system under which deductions are made in the case of unavailability of services. The project raised Euro 750 million in re-financing with a 20-year term.

Based on this experience, the third concession of a motorway was structured as an availability fee payment mechanism from the beginning. The M6 motorway was awarded to a German-Austrian consortium with additional funding from the Hungarian Foreign Trade Bank for 10% of sponsor equity. The concession is for 22 years with a 2 year construction period. The availability/ performance mechanism covers the debt repayment of the Euro 450 million project finance.

Source: World Bank Documents

In the *railway sector*, Estonia has substantially privatized its rail system, while several freight licenses to private sector companies had been issued in Poland and Kazakhstan. In Russia, private sector operations of freight services are likely to materialize soon. Czech Republic, Latvia and Romania have transferred some of their passenger service operations to private companies with subsidy arrangements for public service obligations. Poland is also planning on similar lines. The privatization of the rail system in Estonia proceeded in a systematic and orderly manner and the results appear to be favorable (Box 7.8)

Box 7.8: Privatizing the Estonian Railways

Following Estonian independence, a national railway company—Eesti Raudtee—was established in 1992. The management of the new company was inexperienced and lacked some technical and managerial skills. But the advantage was that there was no heritage of the embedded bureaucratic culture and apparatus that had characterized management of the Baltic Railway headquartered in Latvia during the Soviet rule. In 1997 the state-owned enterprise was split into a number of new entities:

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

Traffic declined during the post-socialist era; by 1995 traffic was about half of 1989 levels. Although passenger traffic has continued to decline, freight traffic started to increase in the mid-1990s, more than doubling by 2000 and thus surpassing 1989 levels. Such a rebound had not happened anywhere else in the region. Traffic levels on the Estonian railway were then higher than those in some larger ECA countries such as Bulgaria and Croatia, and traffic density was twice the EU average. These favorable characteristics, and the fact that 98 percent of traffic was freight, made the Estonian railway industry a good candidate for privatization.

Sixty six percent of the share capital of Eesti Raudtee AS was sold in 2001 to a strategic investor through an international competitive bidding. The strategic investor was Baltic Rail Services (BRS), a company comprising Estonian, U.S., and U.K. shareholders. The U.S. shareholders have extensive experience in the railway industry internationally, and the U.K. shareholders have been heavily involved in rail infrastructure maintenance and renewal activities in the United Kingdom.

Although the financial performance of Eesti Raudtee was improving before privatization, the impact of private ownership and management was significant. The company completely replaced the locomotive fleet and achieved substantial improvements in nearly all conventional measures of commercial performance, including traffic volume, profitability, capital utilization, labor productivity, and financial reporting, as well as improvements in safety. Under private ownership, labor strength had come down by 37% and labor productivity in the Estonian railway industry has become the highest in the ECA region--about four times that of the European Union. This is partly due to the traffic characteristics. The company remains significantly profitable. Government, however, continues to subsidize the unprofitable passenger services segment.

In the *telecommunications sector*, private sector participation is extensive in mobile telephony, covering almost all transition economies. This has encouraged a spectacular growth in access to mobile telephones and internet connections. In most cases the governments have retained some minority shareholding or a "golden share" to prevent hostile take-over. Participation in fixed line telephony had lagged behind, especially in the low income countries of Central Asia. Considerations relating to EU accession such as the need to open up markets in line with the 1998 Telecom Directive of the EU as well as accession to the World Trade Organization had spurred reform in many counties in the region. Privatization proceeded through asset sales (as in Lithuania) or through Initial Public Offering (IPO) 9as in Poland. Hungary sold shares in the first and second stages to a strategic investor and resorted to IPO in the third stage. Estonia on the other hand issued IPO in the first stage and sold shares to a strategic investor in the second stage.

Privatization often proceeded before introducing regulatory arrangements. Many governments got away with it and realized reasonable levels of privatization proceeds because of the existence of suppressed demand for phone services and major technological developments taking place. At least one did not. The unhappy experience of telecommunication privatization in Armenia highlights the need for the establishment of proper regulatory arrangements before privatization and adoption of caution in granting exclusivity of license over very long periods (Box 7.9)

Box 7.9: Privatization of Telecommunication in Armenia ahead of Regulatory Arrangements

Unlike in the case of power Armenia did not have a properly constituted regulatory body before it privatized its telecommunication sector. Armatel was established in 1995 as a joint venture between the Ministry of Communications and Transport (51% share) and a consortium of US and Russian companies called Trans-world Telecom Limited (49% share). This company had begun refurbishing the basic telephone infrastructure in five cities, but the fixed line network in Armenia remained incomplete and other telephony services were non existent. It had failed to keep up with its investment obligations. However, the government proceeded to further privatize Armatel in 1998 to the Greek government owned Hellenic Telecommunication organization (OTE). The problem with the license issued to Armatel/OTE was its exclusivity for long periods over for the fixed line services (15 years) and mobile services (5 years).This had seriously inhibited the entry of competitive providers of mobile services. Armatel is widely believed to have inflated its reported investment plan and stifled growth in potentially competitive markets for internet service provision and cable television through prohibitive access fees for "international data transfer" services. Armenia lagged considerably behind Azerbaijan and Georgia. Its tariffs for both fixed and mobile phones were higher. Its fixed line density was growing at half the pace and its mobile penetration was only 0.2% of the population compared to 3.5% in Azerbaijan and 1.8% in Georgia.

In 2003, the Government unilaterally amended the OTE/Armatel license revoking its monopoly over mobile services. This led to an international arbitration in London. The dispute was, however, settled among the parties in end 2004 resulting in: (a) enabling the entry of one other new mobile provider; (b) reduction of the exclusivity period from 15 to 11 years; and (c) Public Services Regulatory Commission getting jurisdiction over the regulation of the license conditions of OTE/Armatel.

In most countries there has been industry liberalization resulting in plenty of competition in the mobile telephone market. More recently competition is emerging in the fixed line markets also. Railway companies and power companies are laying fiber optic lines of their own. Competition also comes from numerous internet service providers. Unlike in power sector, there could be a number of networks in each country and network access could be governed by bilateral agreements between parties.

As pointed out earlier in this Chapter, private sector investment in the region peaked in 2000 and has since declined to half of that level. This was arguably a consequence of both the continued lack of deeper economic reforms in many parts of the region and the deteriorating global market environment for private financing of infrastructure assets. The drop in investor confidence along with developments in the international financial markets, such a steep drop in equity valuations, widening credit spreads, and a withdrawal by banks in response to increasing loss provisions provided a hostile external environment for emerging market financing during the last few years. The market and governance turmoil in infrastructure sectors over the last few years forced most operators to return to more conservative corporate strategies and financial policies, reducing borrowings and exiting non-core markets in order to maintain their investment grade ratings. Similar financial pressures on the infrastructure and energy sectors drove the trend in declining creditworthiness in the European utilities sector in 2002 and 2003. In 2002, downgrades by S&P outnumbered upgrades by 24 to 3. S&P placed 28% of the rated energy issuers on "Credit Watch with negative implications" or assigned them "Negative Outlook". Dominant sponsors in the infrastructure projects in ECA region suffered deteriorating credit quality as indicated by the decline in their ratings by Moody's (Table 7.1)

Table 7.1: Decline in Corporate Credit Rating of Infrastructure Firms, 1997–2002

Corporation	1997–98	1999–2000	2001–02	Comments
Suez			A2	Steady at A2, but with a negative outlook
Sonera	Aaa	Aaa	Aa3	Downgrade in 2002
Vivendi		Baa2	Baa1	Downgrade in 2002 and placed on "Watch"
AES	Baa3	Ba2	Ba3/B3	Steady downgrading
RWE			Aa3/A1	Downgrade in 2002
EdF	Aaa	Aaa	Aa3	Downgrade in 2002
Eon	Aa2	Aa2	Aa2/A1	Downgrading in 2002
Vattenfall	Aa3	A1	A3	Steady downgrading in 2002

Source: World Bank 2004e.

This resulted in problems for the countries which tried to privatize their assets especially when focusing on the western strategic private investors. Thus attempts to privatize their infrastructure assets by Moldova (power distribution), Armenia (power distribution), Georgia (power distribution), Ukraine (Kyiv Vodokanal) and Russia (Ulyanovsk river port) attracted little or no response from such investors despite several rounds of bidding.

The slack arising from the withdrawal of western investors appears to have been taken up to some extent by the emerging regional investors. Thus RAO UES and Gazprom of Russia and their subsidiaries have acquired energy assets in Kazakhstan, Georgia, Moldova, Armenia, Ukraine and other countries. VSE of Slovakia has acquired distribution assets in Ukraine. CEZ of Czech Republic has also become an active player in acquiring power assets abroad. It acquired recently distribution assets in Romania. New mobile licenses in Russia have gone to local Russian investors. Mobile Telesystems and Vimplecom of Russia have also been buying into the Ukrainian mobile market. Armenia's privatization of its distribution system to a firm specializing in financial turnaround had proved successful. Azerbaijan's power distribution sector had been given during 2002-2003 on a 25 year-concession (though called a management contract) to two regional firms with full investment responsibilities. Also the business cycle appears to be turning around, though, slowly. Privatizations in Bulgaria, Czech Republic, Slovakia and Romania in 2004-2005 in the energy sector proceeded smoothly.

The change in the market sentiment may help only the CEE states and some of the SEE states in an advanced stage of EU accession reflecting the depth of their economic reforms as well as the cautious and selective approach of the investors. The investor would be influenced not only by the depth of sectoral reform, but also by country specific risks which may be institutional or legal. It may also include macroeconomic risks arising from high fiscal deficits, high current account deficits, high inflation and high levels of country's external indebtedness. The correlation between these factors and the level of foreign direct investment is brought by Table 7.2 covering 14 countries in the region.

Table 7.2: Macroeconomic indicators for countries with near-term infrastructure privatization potential, 2003

Country	Government balance (% of GDP)	Current account balance (% of GDP)	Inflation (%, average)	External debt (% of GDP)	FDI ($ millions)
Bosnia and Herzegovina	–0.2	–17.4	1.0	34.9	320
Bulgaria	–0.4	–8.4	2.3	65.6	1,398
Croatia	–6.3	–6.1	1.8	81.8	1,100
Czech Republic	–13.0	–6.2	0.2	33.4	5,000
Estonia	3.1	–13.2	1.3	70.5	743
Georgia	–2.9	–7.9	4.9	49.5	306
Hungary	–6.1	–8.9	4.7	62.3	874
Latvia	–1.6	–8.6	3	82.6	328
Lithuania	–1.7	–6.7	–1.2	40.6	3,372
Poland	–4.2	–2	0.7	50.2	3,839
Romania	–2.4	–5.8	15.4	34.6	1,528
Russian Federation	1.1	8.3	13.7	42.1	-3,002
Slovak Republic	–3.6	–0.9	8.5	56.3	549
Slovenia	-2.0	0.0	5.6	53	-118

Source: EBRD 2004.Note: The net FDI in Russia is negative because its investments abroad exceed foreign investments in Russia.

The other SEE states and CIS states have to carry out in full measure the basic reforms which are the critical factors for success in making their infrastructure services fully functional on a financially viable basis. The larger countries may also focus in the development of their domestic financial markets and attracting domestic investors. In Kazakhstan, for example the government is planning to encourage the channeling of the growing pension funds and insurance funds into infrastructure investments. In Russia a large number of domestic private entrepreneurs are emerging in respect concessions for water and heat services and in the retail service sector in general. Approaches to private sector participation would also encompass regional investors, financial investors from all parts of the world and the firms which specialize in turning around poorly performing assets. But the greatest emphasis would be on turning around the public sector entities to be financially viable entities with possible access to the debt markets based on the strength of their balance sheets and performance indicators. The needed focus for this on cost reduction, right prices, efficient collection, and the overarching governance improvements going under the rubric of "public enterprise reform" would be the subject of the next Chapter.

While private sector investment has played a notable role in the past and is likely to play an even more important role in the years to come, it cannot be regarded as the panacea for all the ills or requirements of the regional infrastructure. Clearly it will remain focused on sectors and activities with high returns and lower risks. Nor can it handle the burden of social protection. All costs relating to the provision of infrastructural services have to be met ultimately by the consumers and the tax revenues of the state. Their respective shares would depend on the extent to which these services could be classified as "public goods" (and possess positive externalities for the societal welfare) or "commercial goods". It would also guide the choices of the public or private sector instruments or agencies or a suitable mix of both to provide these services. It would also influence the shares in financing of the capital investments of infrastructure facilities (including the rehabilitation and replacement of existing assets) by tax revenues and or funds from commercial or official sources.

A great deal of the activities in the energy and telecommunications sector would clearly be regarded as providing mainly commercial goods. In water and district heat, rural areas would remain unattractive to private providers. In the ownership and operation of road and rail transport, it is unrealistic to expect full coverage by private service providers, who may focus only on the railway freight services and perhaps some of the high profile motorways. Also the returns from much of the infrastructure activities, while reasonably steady, are not as attractive as in many other economic activities. Thus public sector may have to remain for the long haul in many of the infrastructure sectors, in many of the countries in the region. In such cases the key to success is to create efficient and sustainable public sector operation for reliable services at reasonable cost. From the sectoral point of view this is also the condition for attracting private investors into the activity. Till private sector actually decides to invest based on its perceptions of the sector risk and country risk *and its own investment priorities*, the public sector should continue to function well and deliver the services reliably and in a sustainable manner. The resources needed for this have to come from user fees and tax revenue (mainly for social protection). To the extent there is a financing gap, the IFIs would have a role in providing catalytic funding, conditioned upon economic reforms to increase fiscal revenues and user fees and securing further sector reforms. The IFIs may also play the role of reducing the risk to the financial markets in providing support to such public sector services through its guarantee operations. Clearly the IFIs and development agencies have a clear role in encouraging the countries to adopt sound macroeconomic policies, institutional and legal reforms designed to reduce country risks for potential investors. The recent use of the Bank's guarantee mechanism to reduce the regulatory risk and facilitate the privatization of energy sector assets in Romania is one such imaginative use of the instruments at their disposal. The enabling of the private sector participation in the power sector of the Gorno Badkhshan area of Tajikistan – one of the poorest and remotest regions in ECA by the Bank Group is another example of the Bank making the best use of its instruments (Box7.10)

Box 7.10: Private Participation in Power supply in Tajikistan

Gorno Badakshan is in the south-eastern part of Tajikistan in the Pamir mountain area which is arguably one of the remotest and isolated regions of the world. It is a small electricity system and is also isolated for all practical purposes. Aga Khan Foundation (AKF) a non-government organization has been granted a 25 year concession to construct a 14 MW hydropower station called Pamir 2, rehabilitate and operate the existing generation stations, transmission and distribution system in this area It has set up a new vehicle for this purpose called Pamir Energy Company (PEC) in which it holds an equity of $7.6 million and IFC has provide an equity of $ 3.3 million and a debt of $4.3 million. The World Bank provided a loan of $10 million from its IDA resources to the government, which has re-lent it to PEC. PEC will complete Pamir 2 hydropower project with the total resources thus raised. Tariffs would be maintained at a level to provide 10% return on equity. The average tariff is expected to grow from 0.75 cents/kWh in 2002 to 3.0 cents by 2010 and remain at that level thereafter. The levelized tariff for the 25 year period would be 2.1 cents/kWh. Costs of social protection (needed in the context of the use of the life line rates and making tariff increases for residential consumers gradual) would be met from a Swiss government grant of $5 million and the re-lending margin of the IDA credit.