Financing of infrastructure

9.141 The Eleventh Five Year Plan envisages an infrastructure investment of 20,56,150 crore (at 2006-07 prices), equaling US$ 514 billion, to be shared between the Centre, states and private sector in the ratio of 37.2, 32.6 and 30.1 per cent.

Debt financing

9.142 The total required debt financing has been estimated at Rs. 9,88,035 crore (Table 9.29). The gap between the likely availability of debt resources and the estimated debt requirement is sought to be bridged through enhanced credit, ECBs, pension and insurance funds and other debt funds on commercially viable terms. The actual flow of debt resources to infrastructure needs to be evaluated against the requirment indicated above. However, this is rendered difficult on account of insufficient information. Nonetheless, the available information on flow of investible resources to infrastructure sectors, gathered from different sources, is presented in this section.

9.143 Net bank credit to infrastructure in any year is defined as the difference between end-March amounts of outstanding gross deployment of bank credit to infrastructure. Setting the flow of credit during 2007-08 and 2008-09 against the estmiated requirement, it seems that the flow of bank credit may bridge a portion of the gap between the likely debt resources and the estimated debt requirement (Table 9.30).

Table 9.29 : Likely sources of debt financing for the Eleventh Five Year Plan

(Rs. crore at 2006-07 prices)

	Total XI Plan	2007-08	2008-09
Domestic bank credit	423691	49848	63207
Non-bank financial companies	224171	23852	31485
Pension/insurance companies	55414	9077	9984
External commercial borrowings	122263	19593	21768
Likely total debt resources	825539	102370	126444
Estimated debt requirement	988035	131718	155704

Source : Planning Commission

Table 9.30 : Bank credit to infrastructure

(Rs. Crore)

Net bank	Infra-structure (Total)	Power	Tele-com	Roads & Ports	Other Infra-structure
2006-07	30122	12659	991	5246	11226
2007-08	61745	21909	18597	9546	11692
2008-09	66770*	na	na	na	na

Source : Reserve Bank of India
*** Annual variations in February, 2009.**
na: Not available

9.144 In the stock of infrastructure investment made by insurance companies by end-2007-08 (Rs. 93,924.2 crore), the public sector companies had a share of 94.3 per cent. With increasing infrastructure investment of insurance companies, their share increased from 2.5 per cent 2004.05 to 5.7 per cent 2007-08. In 2006-07, the public sector insurance companies made a significant step up in their infrastructure investment, but could not sustain the pace in 2007-08 (Table 9.31).

Table 9.31 : Investment by insurance companies in infrastructure

(Rs. crore)*

	2004-05	2005-06	2006-07	2007-08
Public sector companies	7211.2	3933.7	27656.7	8309.0
Private sector companies	462.6	775.3	1249.3	2090.8
Total	7673.8	4709.0	28906.0	10399.8

Source : Insurance Regulatory Authority of India
*** Figures are provisional.**

9.145 Flow of resources to infrastructure through external commercial borrowings had quadrupled from 2005-06 to 2007-08, but then came down drastically during 2008-09 (Table 9.32). Major ECB receiving sectors, air transport and telecom, witnessed slowdown in ECB flows during 2008-09. While the ECB flow to the infrastructure sectors in the first three quarters of 2008-09 remained less than the corresponding periods in 2007-08, ECB flows to infrastructure in Q4 2008-09 were higher than those of Q4 2007-08.The spike in 2007-08 was largely due to the increased flow of ECBs to air transport, which may not be fully treated as infrastructure.

9.146 Infrastructure sectors have started raising significant amounts through private placement of debt. (While private placement has equity and debt components, the sector-specific information on equity components is not available). It may be seen that power and transport sectors raised substantially higher resources during 2008-09 through private placement of their debt, compared to the previous years (Table 9.33).

Table 9.32 : Flow of external commercial borrowings to infrastructure

(US$ million)

Sector	2005-06	2006-07	2007-08	2008-09*
Air transport	145	1109	4740	1914
Power	683	1346	865	1518
Shipping	519	500	665	988
Telecommunications	843	2405	3021	1905
Other infrastructure	382	853	953	591
Total of above	**2571**	**6211**	**10244**	**6915**

Source : Reserve Bank of India
*** Provisional**

Table 9.33 : Funds through private placement (only debt) in infrastructure

(Rs. crore)

Sector	2006-07	2007-08	2008-09 (Prov)
Power generation & supply	5275.0	3468.0	12738.1
Roads & highways	585.3	388.1	2297.2
Shipping	Nil	Nil	436.0
Telecommunications	390.0	Nil	4350.0
Total (of the above)	**6250.3**	**3856.1**	**19821.3**

Source : PRIME Database

Equity financing of infrastructure

9.147 Out of the total private sector infrastructure investment of Rs. 6,19,591 crore projected during the Eleventh Five Year Plan, Rs. 1,85,877 crore (30 per cent) is expected from internal accruals/equity financing, with Rs. 23,450 crore and 28,276 crore expected to realize in 2007-08 and 2008-09 respectively. The total capital raised through public and rights issues (altogether) had increased from Rs. 33,508 crore in 2006-07 to Rs. 87,029 crore in 2007-08 and then declined to Rs. 14,720 crore in 2008-09. Corresponding to this, there has been a steep decline in the capital raised through public and rights issues by infrastructure sectors (Table 9.34).

Table 9.34 : Capital raised through public and rights issues

(Rs. crore)

Sector	2006-07	2007-08	2008-09
Power	30	13,709	958
Telecommunication	2,994	1,000	100

Source : SEBI

9.148 The inflow of foreign direct investment to the infrastructure sector increased by more than five times in 2007-08 (Table 9.35). The pace of FDI inflows to infrastructure sectors was kept up during 2008-09.

Table 9.35 : FDI flows to infrastructure (US$ million)

Sector	2005-06	2006-07	2007-08	2008-09
Power	87.1	157.5	968	984.8
Non-conventional energy	0.1	2.1	43.2	85.3
Petroleum & natural gas	14.2	89.4	1426.8	412.3
Telecommuni-cations	623.6	477.7	1261.5	2558.4
Information & broadcasting	56	43.6	321.5	762.3
Air transport	10.3	92.1	99.1	35.2
Sea transport	53.6	72.5	128.4	50.2
Ports	0.5	0	918.2	493.2
Railway related components	14.7	25.8	12.4	18.0
Total (of above)	**859.9**	**960.7**	**5178.8**	**5399.6**

Source : Department of Industrial Policy & Promotion
*** Information & broadcasting including print media;**
**** Air transport including air freight**

Infrastructure development and public private partnerships

9.149 About a third of the Planning Commission's estimate of Rs. 20,01,776 crore (at 2006-07 prices) required for infrastructure development during the Eleventh Five Year Plan is expected to be met through private investment and public-private partnerships (PPPs). Besides supplementing limited public sector resources, PPPs bring in private sector expertise, cost reducing technologies and efficiencies in operation and maintenance. While encouraging PPPs, six constraints have been identified:

- Policy and regulatory gaps, specially relating to specific sector policies and regulations;
- Inadequate availability of long-term finance (10 year plus tenor)-both equity and debt;
- Inadequate capacity in public institutions and public officials to manage PPP processes;
- Inadequate capacity in the private sector - both in the form of developer/investor and technical manpower;
- Inadequate shelf of bankable infrastructure projects that can be bid out to the private sector.
- Inadequate advocacy to create greater acceptance of PPPs by the stakeholders.

9.150 To address these constraints, several initiatives have been taken by Government of India to create an enabling framework for PPPs. Progressively, more sectors have been opened to private and foreign investment, levy of user charges is being promoted, regulatory institutions are being set up and strengthened and fiscal incentives are given to infrastructure projects. Approval mechanism for PPPs in the Central sector has been streamlined through setting up of Public Private Partnership Appraisal Committee (PPPAC). Standardized bidding and contractual documents have been notified.

9.151 To address the financing needs of these projects, various steps have been taken such as setting up of the India Infrastructure Finance Company Limited (IIFCL) to provide long tenor debt to commercially viable infrastructure projects; and launching of a scheme for financial support to PPPs in Infrastructure to provide viability gap funding (VGF) to PPP projects. IIFC (UK) Ltd., a wholly-owned subsidiary of IIFCL at London — operates with the objective of borrowing funds from the Reserve Bank of India (RBI) and lending to Indian companies implementing infrastructure projects in India solely for meeting capital expenditure outside India. RBI would be providing up to US$ 5 billion to IIFC (UK) Ltd by subscription of 10-year maturity USD denominated bonds, in several tranches, of the subsidiary. Multilateral agencies such as the Asian Development Bank have been permitted to raise rupee bonds and carry out currency swaps to provide long-term debt to PPP projects. Setting up of dedicated infrastructure funds are also being encouraged to increase the flow of equity investments.

9.152 For building the capacity of public institutions in preparing a pipeline of credible, bankable projects that can be offered to the private sector, State Governments and Central Ministries are being provided with technical assistance in the form of in-house PPP, MIS experts and access to a panel of legal firms. Other measures include assistance to State Governments and Central Ministries in hiring consultants through a panel of transaction advisers and preparation of sector-specific toolkits for engaging in PPPs. To deepen the capacity building of public functionaries at the state and municipal level, a national training programme on PPPs is being developed which will be delivered through Central and state administrative institutes. As the reach of PPP increases across sectors, the capacity of the private sector to manage these projects over their entire life cycle of 20 to 30 years would also have to be enhanced. In addition, steps need to be taken to provide adequate skilled manpower in different sectors. The Government of India has announced National Skill Development Mission and National Skill Development Corporation has been established in the PPP mode to scale up skill development activity.

9.153 For providing financial support for project development activities to the states and the Central Ministries, the Scheme and Guidelines for India Infrastructure Project Development Fund (IIPDF) have been notified. The IIPDF ordinarily assists up to 75 per cent of the project development expenses in the form of interest free loan. On completion of bidding, the project development expenditure is expected to be recovered from the successful bidder. PPP projects in urban and social sector have been identified as pilots, which are being structured in collaboration with the implementing authorities. The objective is to develop sustainable demonstration projects that may eventually have a catalytic effect on PPPs in these sectors.

9.154 A website, www.pppinindia.com, has been created which is devoted to PPP initiatives in the states and Central Ministries. An online database,

Box 9.9 : Viability gap funding for PPP projects

Infrastructure projects often have high social, but an unacceptable commercial rate of return. These are generally characterized by substantial investments, long gestation periods, fixed returns, etc. which, make it essential for Government to support infrastructure financing, through appropriate financial instruments and incentives. With a view to support infrastructure projects, the Scheme for Financial Support to PPPs in Infrastructure (Viability Gap Funding Scheme) was announced in 2004 and its operational modalities were put in place by 2005. The scheme aims to ensure wide spread access to infrastructure through the PPP framework by subsidizing the capital cost of their access. It provides financial support in the form of grants, one time or deferred, to make infrastructure projects commercially viable. The scheme provides total Viability Gap Funding up to 20 per cent of the total project cost. The Government or statutory entity that owns the project may provide additional grants out of its budget up to further 20 per cent of the total project cost. Viability Gap Funding under the scheme is normally in the form of a capital grant at the stage of project construction.

The National Highway Development Project (NHDP) also utilizes the instrument of viability gap funding for meeting the twin object was of inclusive growth (affordable user charges determined upfront) and harnessing private sector efficiencies in creation and maintenance of the infrastructure assets. Viability gap funding, normally up to 40 per cent of the total project cost, is provided to the PPP road projects. It is in the form of a capital grant at the stage of project construction (up to 20 per cent of the total project cost) and O&M support (up to 20 per cent of the total project cost).

VGF PPP Projects in NHDP

Rs. Crore

Phase	No. of Projects	Length	Project cost	VGF Sought (Net of premium)
Awarded Projects				
I	8	344	2977	578
II	17	829	5868	31
III	37	1627	20331	3732
V	7	1030	7733	-2291
VII	1	19	1655	281
Total	**70**	**3849**	**38564**	**2331**
Projects Under Bidding				
II, III, V	52	5680	58860	13015
Grand Total	**122**	**9529**	**97424**	**15346**

VGF for State Roads and other Projects

Rs. Crore

Sectors	No of Projects	Project	VGF cost (Estimated Requirement)	VGF Sought
Awarded Projects				
Roads	14	4657.70	866.89	197.52
Urban	1	11814.00	2362.00	0
Total	**15**	**16471.70**	**3228.89**	**197.52**
Projects under bidding				
Roads	29	9747.54	2060.40	NA*
Urban	1	7660.00	1532.00	NA*
Tourism	1	148.87	29.77	NA*
Total	31	17556.41	3622.17	NA*
Grand Total	**46**	**34028.11**	**6851.06**	**197.52**

*** Not applicable since projects, still under bidding.**

www.pppindiadatabase.com, has been developed to provide comprehensive and current information on PPP projects at the Central, state and sectoral levels (Table 9.36). A communication strategy is being developed to enhance awareness about PPPs among key stakeholders and for establishing platforms for dialogue and by dissemination of information on PPP projects that have worked well and those which have not achieved the intended benefits (Box 9.9).

9.155 There is a broad acceptability towards the need for engaging in PPPs in the country. However, the constraints cited above and need for sustained Government intervention have been accentuated by the current economic downturn. The slowing of economies and resultant shrinking income and demand has dampened the PPP exuberance due to drying up of sources of debt and equity for PPP projects. Nevertheless, an overriding perspective remains that investments would continue to flow to well structured projects; greater focus of project revenues/viability and optimal risk management arrangements are likely to attract private capital. This approach points towards imperatives of developing capacities to structure projects and exploring alternative financing mechanisms.

Table 9-36 : State-wise PPP projects (Projects based on value of contracts)

State	Total Number	Upto 250 crore	Above 250 crore	Value of contacts
Andhra Pradesh	36	22	14	10818.0
Delhi	8	5	3	9813.0
Gujarat	27	7	20	17700.0
Jharkhand	6	5	1	681.0
Karnataka	27	21	6	5253.0
Kerala	9	2	7	12353.0
Madhya Pradesh	25	16	9	4856.0
Maharashtra	25	7	18	31142.0
Punjab	18	15	3	1339.0
Rajasthan	37	35	2	2040.0
Sikkim	24	10	14	17111.0
Tamil Nadu	28	9	19	10058.0
Uttar Pradesh	5	0	5	2108.0
West Bengal	5	1	4	2055.0
Other States/ UTs*	20	10	10	8549.0
Total	**300**	**165**	**135**	**135876**
SECTOR-WISE FIGURES				
Airports	6	0	6	20041.0
Ports	38	9	29	43053.0
Railways	3	1	2	1007.0
Roads	187	108	79	47755.0
Urban Development	35	31	4	6218.0
Energy	31	16	15	17802.0
Total	**300**	**165**	**135**	**135876**

Source : www.pppindiadatabase.com

(*): Other States/UTs include; Bihar, Chhattisgarh, Haryana, Goa, Orissa, Puducherry & Andaman and Nicobar Islands

9.156 In the wake of the global financial crisis, the Government of India has initiated a series of measures to sustain the impetus in investments in infrastructure. Foreign borrowing rules have been eased by removing "all-in-cost' ceilings on such borrowings, expanding the definition of infrastructure sector for availing external commercial borrowings (ECBs), allowing corporates engaged in the development of integrated townships to avail ECBs under the approval route and raising foreign investment limit in corporate bonds to US$ 15 billion. NBFCs, dealing exclusively with infrastructure financing, would be permitted to access ECB from multilateral or bilateral financial institutions, under the approval route of RBI.

9.157 The India Infrastructure Finance Company Limited (IIFCL) has been authorized to raise Rs. 10,000 crore through tax free bonds to provide refinance to banks for their loans in the road and port sector for which bids have been submitted on or after 31.1.2009. The refinance from IIFCL would supplement the resources available with banks to finance such infrastructure projects involving projects worth Rs. 25,000 crore. To fund additional projects of about Rs. 75,000 crore during the next 18 months, IIFCL is being enabled to raise Rs. 30,000 crore by way of tax-free bonds in several tranches, once the funds raised during 2008-09 have been effectively utilized.

Time and cost overruns in infrastructure projects

9.158 The progress of the Central sector projects, each costing Rs. 100 crore and above, is being monitored by the Department of Programme Implementation on a monthly basis. In March 2009, the projects in the roads, power, railways, petroleum, telecom, coal and steel sectors constituted more than 94 per cent of the total number of monitored projects. The cost overrun is calculated on the basis of the subsequent revisions, till the reporting

Table 9.37 : Progress of Central sector projects (Rs. 100 crore and above)

Month of	Number of projects	Total Cost (of all projects)	Cost over run	Ahead of projects that were:			
				Ahead	On time	Delayed	Without any fixed date (or no date) of completion
Oct-07	514	344699	9.6	2.9	31.3	41.8	23.9
Dec-07	513	346320	10.6	2.5	32.0	40.9	24.6
Apr-08	519	351996	10.9	2.5	28.1	49.7	19.8
Jul-08	516	364214	11.8	2.7	30.0	41.5	25.8
Oct-08	521	392778	11.4	2.7	31.9	46.4	19.2
March-09	552	468813	11.6	1.4	26.4	50.7	14.9

Source : Ministry of Statistics and Programme Implementation

month, to the original cost of sanction (Table 9.37). Over time, there has been no visible positive change in the timeliness of completion of projects; nor in the avoidance of cost overruns, as evidenced in table 9.37.