Discussion Paper

Sub-prime Infrastructure:
Crony capitalism in Public Sector Banks

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For over a decade, investment in infrastructure grew at an impressive pace – from 4.9 per cent of GDP during the 10th Five Year Plan (2002-07) to 7 per cent of GDP in the 11th Plan, thereby doubling the investment in real terms. While this rally of investment was proceeding in right earnest, crony capitalism crept in, largely with the support of Public Sector Banks (PSBs), thus creating sub-prime infrastructure[1] which has led to a sharp rise in stressed assets of PSBs. Just as sub-prime housing had destabilised the US economy in 2008, sub-prime infrastructure has caused an upheaval in India's banking system, with serious repercussions on the economy. As a consequence of this imbroglio, 39 national highway projects failed to take off and their concession agreements had to be terminated while several on-going projects are stressed. The situation is much worse in the power sector where a majority of private sector generation projects are under stress while the distribution segment is virtually bankrupt. Hardly any new private sector projects (other than renewables) have been launched during the past three years. Other infrastructure sectors have fared no better.

Given its enormous scale, this saga can well be regarded as the mother of all malfeasance that independent India has seen. Its impact would be far in excess of the combined effect of the telecom and coal scams. Over Rs. 6 lakh crore ($ 100 billion) of debt may either have to be written off or sustained by budgetary resources of the Central and State Governments. Without extensive government support, the net worth of PSBs may well turn negative.

This paper aims at initiating a serious debate on the underlying issues with the objective of facilitating a revival of the economy, besides preventing the recurrence of such episodes.

Context

There is general agreement that the infrastructure sectors are facing a crisis that needs to be resolved speedily, failing which it may not be possible to revive growth or achieve the laudable objectives of the *Make in India* campaign. The extent of the crisis can be seen from the fact that the total investment in infrastructure during the 12th Five Year Plan (2012-17) is likely to be lower than the actual investment in the 11th Plan (2007-12). In contrast to this stagnation, investment during the 11th Plan had more than doubled as compared to the 10th Plan, rising from Rs.12.90 lakh crore to about Rs. 27.33 lakh crore (at 2011-2012 prices). In particular, private investment increased more than threefold, from Rs. 2.91 lakh crore in the 10th Plan (22 per cent of total

[1] The term sub-prime refers to the credit quality of borrowers who are at greater risk of loan default than prime borrowers. It implies giving loans to firms which may have difficulty in maintaining the repayment schedule.

investment) to Rs. 10.1 lakh crore in the 11th Plan (37 per cent of total investment).

Two-thirds of the 12th Plan period is over and the showing on new investment in infrastructure has been dismal. Since 2012-13, virtually no new power project (other than renewables) has been initiated in the private sector. During this period of forty months, only 21 PPP projects of national highways have been awarded with a total investment of about Rs. 22,500 crore while there has been a gradual shift to cash contracts that will be funded solely out of budgetary resources. As a result, the initial optimistic projection that the total investment in infrastructure during the 12th Plan would be about twice the investment made in the 11th Plan, with 48 per cent to be contributed by the private sector, now appears like a pipe dream. Moreover, the total investment in infrastructure, which had increased from 4.9 per cent of GDP during the 10th Plan to 7 per cent in the 11th plan, could well revert to 5 per cent during the 12th Plan.

Sub-prime lending by PSBs

The principal cause of the slowdown in investment in infrastructure lies in the widespread sickness prevailing in a large number of infrastructure projects which were imprudently financed by Public Sector Banks (PSBs) that control bulk of the banking system in India. Just as the irresponsible lending for sub-prime housing caused a slowdown of the US economy with global consequences, the reckless lending for sub-prime infrastructure projects has slowed down the Indian economy in the recent past. Though the scale of these two episodes is not comparable, their causes and consequences seem somewhat similar.

As per RBI reports, the stressed advances of PSBs had already reached a level of about 13.5 per cent of their total advances in March 2015, compared to less than 4.5 per cent in private banks. The Economic Survey, 2015 also recognised that debt of this nature has almost exclusively been financed by PSBs, resulting in high and rising Non Performing Assets (NPAs). As a result, PSBs are now facing their worst-ever health and may not, therefore, be able to finance new infrastructure projects at the scale required, which in turn will affect the growth prospects in the years ahead. However, there seems to be inadequate recognition of the nature and scale of this malady, which in turn has delayed corrective action. A clinical analysis of this phenomenon, therefore, seems overdue.

Why infrastructure financing is unique?

While banks normally lend against encashable security, which usually includes mortgage of project assets as well as collateral security, they do not insist on either while lending for infrastructure projects. This is mainly because project assets such as roads, ports or airports cannot be mortgaged or sold off for recovery of debt and also because promoters cannot provide the requisite collateral for these capital-intensive projects. As such, infrastructure projects are undertaken through special purpose vehicles (project-specific companies) that borrow primarily on the strength of their expected revenue streams. Since banks have no recourse to project assets or collateral in the event of default in debt service, this form of lending is referred to as 'non-recourse' or 'limited recourse' financing. Given the enhanced risks, the 'due diligence' to be undertaken as part of project appraisal is typically far more rigorous. In particular, it involves a close scrutiny of the detailed terms of the project contracts and associated matters.

World-class framework for PPPs

Following the introduction of Public Private Partnership (PPP) in infrastructure, the Central Government had set out an elaborate policy, regulatory and contractual framework with the objective of ensuring transparency, competition and efficiency in the award and implementation of PPP projects. This framework was instrumental in attracting unprecedented volumes of private investment that led India to the top slot in PPP investment during 2007-12, according to World Bank reports. In a study (Infrascope 2011), commissioned by the Asian Development Bank, the Economic Intelligence Unit (EIU) of The Economist had stated that "the Republic of Korea, India and Japan are the top-performing Asia-Pacific countries … … PPP development in India has been driven by strong political will and advancement in public capacity and processes. … … India has strong systems in place for PPP project-selection and bidding … … risk allocation has been improving since the introduction of Model Concession Agreements in 2004".

The aforesaid framework relied on the premise that since bulk of the financing for PPP projects was to be provided by the banks, they would undertake the requisite due diligence to assess the viability and enforceability of the respective concession agreements on which the repayment and security of their debt would depend. As such, if PSBs had displayed a modicum of the prudence expected from a responsible lender, much of the crisis would have been averted. However, they acted to the contrary.

Cavalier lending by PSBs

Enormous sums of money were lent by the PSBs to private sector infrastructure projects in a manner that can only be described as cavalier because prudence as well as due diligence were conspicuous by their absence. Financing of gold-plated costs, reckless disbursement of funds, irresponsible waiver of conditionalities, bypassing of contract terms, lack of any worthwhile stake of the project sponsors and diversion of funds became the principal attributes of PSB lending to infrastructure projects. This was brought out in a Discussion Paper titled 'Sub Prime Highways' circulated by the author in June 2010. However, given the inconvenient facts stated in that paper, it was ignored, perhaps deliberately, by the relevant Ministries as well as the PSBs. This story was reinforced in another Discussion Paper titled "Infrastructure: A Policy Logjam" that was brought out by the author in June 2013, but this too was overlooked. A quick look at some facts associated with the large-scale lending for highways and power projects will at once bring out the nature and scale of the problem.

Sub-prime lending in highways sector

The Table below shows select projects where PSBs approved project costs that were far in excess of the Total Project Cost (TPC) specified in the respective concession agreements, and went on to finance the same with no security for such excess lending:

Table: Excessive financing by PSBs

Sl. No.	Name of the Highway Project	Project Cost, as specified in the concession agreement (in Rs. crore)	Project cost, as approved by PSBs (in Rs. crore)	Extent of excess financing (in Rs. cr.)/ *(in percentage)*
1	Mah. Border - Surat - Hazira	953	2,419	1,466 *(154)*
2	Gurgaon - Jaipur	1,674	3,009	1,335 *(80)*
3	MP border - Nagpur	679	1,971	1,292 *(190)*
4	Pimpalgaon - Gonde	752	1,691	939 *(125)*
5	Amritsar - Pathankot	577	1,445	868 *(150)*
6	Pune - Sholapur	623	1,371	748 *(120)*
7	Hyderabad - Vijayawada	1,460	2,194	734 *(50)*
8	Mah. Border - Dhule	743	1,420	677 *(98)*
9	Panaji - Karnataka Border	196	832	636 *(324)*
10	Kishangarh - Beawar	722	1,305	583 *(81)*
11	Trichy - Karur	487	1,061	574 *(117)*
12	Vadakkancherry -Thrissur	373	874	501 *(134)*
13	Talegaon - Amravati	403	888	485 *(120)*
14	Indore - Gujarat border	1,175	1,524	349 *(30)*
15	Zirakpur - Parwanoo	178	475	297 *(167)*
16	Bangalore - Nelamangala	445	717	272 *(61)*
17	Kalghat - MP Border	549	782	233 *(42)*
18	Salem - Ullundurupet	902	1,061	159 *(18)*
19	Delhi Border - Rohtak	486	586	100 *(21)*
20	Pondicherry - Tindivanam	269	315	46 *(17)*
	TOTAL	13,646	25,940	12,294 *(90)*

(Source: Sub-prime Highways? – An Issues Paper *by Gajendra Haldea*; June 2010)

During the past decade, PSBs have financed over 400 National and State highway projects involving a total debt exposure of over Rs. 3 lakh crore, including loans given by the Government-owned India Infrastructure Finance Company Limited (IIFCL), private sector banks and Non-Banking Finance Companies (NBFCs). In a majority of these projects, there has been large-scale gold plating of capital costs, as illustrated by the Table above. It is noteworthy that the TPC specified by the National Highways Authority of India (NHAI) in its concession agreements is typically based on the feasibility reports prepared by reputed consulting firms. This includes a provision of 25 per cent of construction costs for meeting contingencies and financing costs, including interest during construction (IDC). The main purpose of specifying the TPC is to cap the contingent liability that NHAI may have to bear in the event of premature termination of a concession agreement.

Since highways cannot be sold or put to any other use, the concession agreements allow the lenders to find a substitute in case a concessionaire fails to perform. However, if the lenders are unable to find a credible substitute, the concession agreement gets terminated and NHAI is required to buy back the project. If termination is triggered due to a default by the concessionaire, the project equity would get forfeited while 90 per cent of the debt forming part of TPC would be paid by NHAI. On the other hand, if termination is caused due to a default by NHAI, the termination payment would cover the entire equity and debt forming part of TPC, besides a specified amount of compensation. It follows that the lenders' exposure is secure to the extent of an assured termination payment by NHAI. Conversely, any debt in excess of TPC is unsecured and the lenders would have no recourse for recovery of such excess lending.

PSBs have generally argued that the TPC specified by NHAI was unrealistic and outdated. Hence, they claim to have relied on the cost estimates provided by the lenders' engineer (whose fee was often paid by the concessionaire!). Their contention is specious because revision of cost estimates without the consent of NHAI implied that the debt which did not form part of TPC would be unsecured and unrecoverable in the event of termination. Moreover, such large increases in capital costs could have been sustained only by a significant bloating of the traffic projections contained in the feasibility reports, thus creating another layer of manipulation. Undoubtedly, PSBs were free to lend beyond TPC, but only if the project sponsors came forward with additional tangible security, besides credible evidence that they would be able to service the enhanced debt. With the benefit of hindsight, based on the bids received for over 50 EPC projects during the past three years, it can now be asserted that the TPC determined by the consultants of NHAI was entirely reasonable.

Evidently, gold plating of project costs enabled unscrupulous investors to siphon out the excess loans for other purposes, including the funding of their equity stake. They also made money by off-loading a part of the project equity for a premium. Predictably, numerous bidders succumbed to this greed and bid very aggressively in order to capture as many projects as possible, with virtually no stake of their own.

Failure of projects

As a result of aggressive and unsustainable bidding, about 40 PPP projects failed to take off in 2012-13, when the concessionaires' lobby managed to persuade the top brass in NHAI and the Ministry of Road Transport and Highways (MORTH) to support their demand for huge *post bid* favours. A formal proposal was sent for approval of the Cabinet, but since reservations had been expressed by the Planning Commission about the propriety of granting post-bid favours, the matter was referred to an Expert Group headed by Dr. C. Rangarajan, then Chairman of PM's Economic Advisory Council.

The said Expert Group was somehow pursuaded to recommend very substantial *post bid* favours in its draft report. At that stage, the Chairman agreed to hear the author who was opposed to renegotiation because the concession agreements themselves provided for a calibrated relief in specified circumstances and anything beyond was not justified. Following this interaction, the Expert Group changed course and finally recommended some relief within the framework of extant contracts, thus avoiding what may have been regarded as a very questionable largesse of unprecedented proportions. Following the denial of large *post bid* favours, the concession agreements for 39 major projects got terminated, mostly before starting any construction work, while a large number of on-going projects are either becoming NPAs or seeking regulatory forbearance. During this entire episode, no flaws were found in the concession agreements or the bidding structure. The causes of failure primarily lay in aggressive bidding by greedy firms, excessive financing by PSBs and lack of contract enforcement by NHAI. As such, it should be possible to bid out the terminated projects afresh without much difficulty.

Role of NHAI

In this entire saga, NHAI played a participative role in several ways. It awarded projects without the requisite preparation, mainly with the objective of expanding the scope and reach of its lucrative contracts. It waived critical conditionalities for making the contracts effective so as to enable the concessionaires to draw down much cash from their lenders through various forms of manipulation, which included transfer of large advances to sister companies acting under incestuous sub-contracts for construction and other services. It also turned a Nelson's eye to the gold-plated costs that were formally reported to it by the concessionaires before commencing construction. Contract compliance by NHAI was also wanting in several critical aspects. Moreover, NHAI has continued to be in violation of a Cabinet mandate relating to its organisational structure for PPP, which was aimed at creating a professional and dedicated division with the requisite capacity. On the contrary, PPP contracts have been distributed among the various divisions as if they represent largesse. NHAI has also continued to flout a detailed Cabinet mandate that requires it to set up a mechanism for monitoring and enforcement of PPP contracts. All the aforesaid violations have clearly enhanced the potential for malfeasance.

NHAI's overindulgence towards concessionaires also compromised public interest. For example, when relief within the extant agreements was approved by the Cabinet on the recommendation of the aforesaid Expert Group, NHAI nevertheless accepted the gold-plated costs of several projects for computing the quantum of relief. In the process, NHAI went beyond the concession agreements in order to grant huge undue favours to select concessionaires while adding to its own costs and risks. It is unlikely that these issues will escape the scrutiny of C&AG. Moreover, this may also encourage other concessionaires to approach the Government or seek judicial intervention for a similar treatment of their gold-plated costs.

Sub-prime lending in power sector

The situation is much worse in the power sector where a majority of the private sector projects would have to be categorised as sub-prime, despite the relief granted through 'corporate debt restructuring' and other forms of forbearance. In this sector, bulk of the problems had their origin in the Ministry of Power (MoP) itself. However, the prevailing infirmities were hugely compounded by PSBs who threw all prudence and diligence to winds while disbursing large loans to Independent Power Producers (IPPs) on the strength of Power Purchase Agreements (PPAs) that were fundamentally flawed. It is noteworthy that the Economic Survey, 2015 identified 54 private sector power generation projects as stalled projects.

Role of Power Ministry

The Standard Bidding Documents (SBDs) notified by the Ministry of Power (MoP) in 2006 were irrational and contrary to best practice, to say the least. They allowed the IPPs to assume the fuel price risk over the contract period, which typically exceeded 20 years. They also allowed the IPPs to assume the fuel supply risks despite there being no market for sale or purchase of coal, as coal is a nationalised industry. Strangely, the IPPs accepted these risks, which no prudent firm would ever take, except when it is confident of fixing the problem through manipulation and *post bid* favours. A large number of power projects were thus awarded on the basis of such 'make believe' arrangements. For example, an Ultra Mega Power Project (UMPP) costing over Rs.5 crore ($ 0.9 mn) per MW was awarded for a fixed charge of about 15 paise (0.25 US Cents) per unit which is patently unsustainable. Obviously, something else would be manipulated by the IPP to square the account.

MoP blessed a large number of thermal power projects, unmindful of the availability of coal and gas. It made *ad hoc* and excessive recommendations for allotment of coal blocks to private companies without ensuring that the benefit of cheaper coal would be passed on to consumers in the form of lower tariffs. As a result, these coal blocks came to be viewed as state largesse granted to a select few for extraneous reasons, which led to a scathing report by the C&AG, followed by cancellation of the leases of 214 coal mines by the Supreme Court in 2014. The power sector as well as the economy may take much time to recover from this shock and establish credible alternatives.

When fuel shortages began to hit several of the new power stations in 2012-13, MoP sought Cabinet approval for pooling of coal prices in order to shift the burden of costlier imported coal from IPPs to the older power stations owned by the public sector. The move had to be aborted owing to resistance from the States. MoP also tried to support some IPPs in securing an upward revision beyond the contracted tariff. Though the power regulator was persuaded to lend a helping hand, the affected States invoked judicial review leading to a deadlock. In the past, MoP had also encouraged unscrupulous and unlawful trading of bulk power that provided huge unearned gains to private producers at the expense of state-owned distribution companies (Discoms), thus adding to their accumulated losses. MoP also kept postponing the structural reforms mandated by the Electricity Act 2003, thereby denying the introduction of competition and open access while perpetuating the monopoly structure that suited the incumbent Discoms as well as the crony producers.

Currently, India's power sector seems unique inasmuch as most parts of the country face power outages even while the producers are unable to find buyers and are, therefore, encumbered with idle capacity. This is primarily because the Government has failed to introduce the market structure mandated by the Electricity Act 2003, in line with the structure prevailing in the entire developed world. What continues to operate in India is the evil 'single buyer model' that implies an inter-connected chain of monopolies where all power producers sell to a single state-owned entity having jurisdiction, from whom all consumers must buy in retail. At the root of this problem lies the spend of Rs. 3.50 lakh crore per annum by state-owned agencies on procurement of bulk power. It would be a herculean task to wean them away from what is evidently the largest public procurement.

A road map that would address the aforesaid problems is conspicuous by its absence. Not only is there a lack of any clear recognition of the underlying issues, there seems to be no cogent debate or dialogue on the measures needed to retrieve the power sector from the deep abyss that it has gone into. Since power sector is virtually the mother of all industry, its failures have been slowing down the entire economy.

Role of PSBs

Given the industry structure as well as the extant SBDs, power projects of most IPPs were simply not bankable. As such, if PSBs had been a bit diligent and prudent, the failures of MoP would have been largely contained. For example, no banker worth his salt would lend thousands of crores of rupees to a power project that does not have an enforceable fuel supply agreement or some other assured source of supply. Nor would he lend to a borrower who assumes the fuel price risk in a long-term agreement. Nor would a prudent lender entertain such large investments where the purchasers are insolvent state-owned entities that could default any time and leave the projects stranded.

The PPAs of all these projects have been written in an *ad hoc* manner with limited expertise and under the influence of prospective investors who wanted to own the project assets at the risk and cost of the public exchequer and consumers. As a corollary, these PPAs do not contain any provision for termination payments, which in turn implies that if a project fails, the promoters would retain the project while the lenders would be at complete risk for want of any security or recourse, except for a distress sale of failed project assets. The market value of such project assets is in any case substantially lower than their book value, as PSBs seem to have financed gold-plated costs of comparatively cheaper Chinese equipment. Predictably, PSBs are set to lose a significant part of their debt in these projects.

Scale of lending

The total exposure of PSBs and other financial institutions (like PFC, REC, IIFCL and private sector banks) to IPPs may well be over Rs. 6 lakh crore, if undisbursed loans for projects under construction are also added. This amount is likely to increase further on account of interest during construction and cost escalation, as numerous projects continue to face various challenges. As costs continue to increase, more and more projects would become unviable as they will not be able to pass on the added burden to their contracted tariffs. A majority of IPPs would thus come under considerable stress. Though a precise estimate would be difficult to make without project-wise analysis, it can well be surmised that a large proportion of the debt may not be recoverable within the present structure. Nothing short of reform of the power sector as well as restructuring of individual projects would restore the power sector to normalcy.

Continued pursuit of crony capitalism

Despite the enormous failures of the past, PSBs continue to support crony capitalism. This is evident from their complete endorsement of the demand of the power producers' lobby for scrapping the model PPA for UMPPs which was notified by the Central Government in 2013 after extensive consultations spread over an year. At times, it is difficult to distinguish between the views of crony capitalists and those of PSBs, as the two seem to have become synonymous. Clearly, PSBs have not learnt their lesson.

The Discom Imbroglio

Problems created by PSBs are not confined to the generation segment. They also extend to the distribution level where PSBs have lent large sums to the Discoms, who in turn have used them for buying expensive power from private sector IPPs. As brought out by this author (in the Outlook edition of October 5, 2009), IPPs had made a virtual killing by selling traded power at over Rs. 6 per unit and collecting a whopping Rs. 30,000 crore from Discoms in 2008-09 alone, even though they used subsidised coal from CIL or mined it from their allocated captive mines. Purchase of such unaffordable power was virtually financed by PSBs until their exposure to Discoms exceeded Rs. 3.5 lakh crore, when RBI had to intervene and restrict further lending. As a result, the off-take of power from IPPs has declined, leaving them with unutilised capacity of a fairly large order, which in turn may cause default in debt service by the respective IPPs.

Faced with a financial crunch arising from withdrawal of PSB lending, the Discoms have been forced to raise their tariffs significantly, leaving little headroom for any further increase. However, these tariffs barely cover the operating costs of Discoms, leaving little room for debt service. Evidently, no State Government will be able to increase tariffs in order to clear the accumulated losses represented by the outstanding debt of Discoms. As such, there is no way other than transferring these loans to the respective State Governments. In other words, the State Governments will have to pay over Rs. 3 lakh crore to clear this mess. It is noteworthy that much of this problem can be attributed to the high cost of power that most Discoms have been paying, as compared to the Gujarat Discoms that succeeded in keeping their procurement costs low and hence stayed healthy.

Financial crisis

As a result of this decade-long saga of crony private participation, the power sector is in the midst of a financial crisis. Power producers have been seeking allocation of fuel, pooling of fuel prices, upward revision of tariffs, increase in bank lending and regulatory forbearance to tide over their difficulties. Most of these reliefs can only be given at the cost of tax payers and consumers, which seems improbable. Recognising the present state of infrastructure financing, the Economic Survey, 2015 states that "highly leveraged corporate balance sheets and a banking system under severe stress suggest that this will prove challenging". Without implementation of structural reforms at an urgent pace, the prevailing crisis is not likely to ease.

The Steel melt-down

The steel industry is also facing a crisis primarily on account of the international glut leading to low prices. This has badly affected the recent investments which were at any rate gold-plated, with inadequate stake of the promoters, and also encumbered by various problems arising from delays in construction leading to escalation in project costs. As a result, of the total debt exposure of over Rs. 3.5 lakh crore to steel companies, about half is already under stress. In several cases, the total price recovery (based on market rates) is lower than the interest burden. Large NPAs and write offs are, therefore, inevitable.

Role of RBI

The nature and scale of malfeasance in the banking system leaves little doubt that RBI's oversight and regulation has been weak as well as flawed. It failed to detect the extensive gold-plating in infrastructure projects. Nor did it check the enormous volumes of unsecured lending for such projects. When the scale of infrastructure financing was rising at a very rapid pace, it did not examine or evaluate the various processes and systems associated with non-recourse financing that was new to Indian banking.

It is common knowledge that PSBs have been engaging in 'evergreening' of sub-prime assets by extending more bad loans in order to fund the interest burden and cost escalation arising out of delayed completion. The objective of this exercise is to retain the classification of 'standard assets' in order to maintain the illusion of healthy balance sheets of PSBs. Various forms of regulatory forbearance such as 'corporate debt restructuring' and extension of tenure through the '5/25' mechanism are also aimed at postponing the day of reckoning. In this process, the basic issue being overlooked is that given the inflexible revenue streams under fixed-tariff contracts for infrastructure projects, the increased capital costs are not sustainable and defaults in debt service are a foregone conclusion. Further, the project promoters are not infusing any cash of their own and thus playing entirely on bank funds. As a result, the problem is only growing in size and complexity.

As a regulator, RBI should have known the aforesaid facts and acted on them. On the contrary, it displayed little knowledge or intent to contain the problem. It is indeed debatable that when very large sums of public money are eventually written off by PSBs, whether or not RBI would be able to retain its credibility as the custodian of public deposits. It is noteworthy that some of the aforesaid issues were brought out in a Discussion Paper (dated June 6, 2013) sent by the author to Governor, RBI where sub-prime lending was brought out (see Annex- I). In a detailed note forwarded by the Governor (dated July 23, 2013), several of these issues were recognised (see Annex-II) and the author responded (on August 12, 2013) with further comments (see Annex-III). However, there is no evidence to suggest that RBI took any steps to contain this malady or to bring any offenders to book.

Some of the issues relating to the role of banks in financing infrastructure were also considered by the High Level Committee on Financing Infrastructure, constituted by the Prime Minister under the chairmanship of Shri Deepak Parekh, of which the author was a member. The relevant recommendations of its Report of June 2014 are reproduced below:

> *"4.8.3 For limited recourse lending to infrastructure projects in a manner that is sustainable, it is necessary for banks to strengthen their capacity and deploy the requisite skills for appraisal and approval of such projects. The appraisal process would have to ensure that the (a) project sponsors have an adequate financial stake; (b) the capital costs are reasonable; and (c) the revenue potential of the project is assessed on a realistic basis. This aspect deserves urgent attention in order to ensure a continued flow of debt to infrastructure sectors while rationalising the risks of the lenders."*

THE WAY FORWARD

The issues and problems are enormous as well as complex, and they will only be compounded by procrastination or inadequate action. In particular, cost escalation and interest during construction will keep adding to the project costs by about 10 to 12 per cent per annum with virtually no prospects of their recovery through higher tariffs. The size of the problem is thus growing rapidly. Indeed, there are several perspectives to the range of possible solutions for each of these issues, depending on who is presenting them. However, there seems to be no clear recognition of this difficult situation by the Government, except for some references in the Economic Survey. As a result, there is no policy or strategy paper in the public domain that suggests the way forward. If this ambivalence continues, the economy may drift further and the ultimate pain would be much greater. Some of the key challenges are briefly described below.

Scale of the problem

It is important to recognise the scale of the problem so that policy responses can be tailored accordingly. The total exposure of PSBs and other financial institutions in infrastructure and steel sectors may well be in the region of Rs. 20 lakh crore, implying an annual interest burden of about Rs. 2.5 lakh crore. Much of this debt is unsustainable and is, therefore, being implicitly restructured by way of regulatory forbearance. While this may provide some breathing space for repayment of principal, a majority of the projects are unable to service their onerous interest burden. The scale of the problem is, therefore, increasing fairly rapidly.

First and foremost, there seems no option but to require the respective State Governments to take over at least Rs. 3 lakh crore of Discoms' debt by issuing Government bonds or by ring-fencing this debt in other ways and taking over the debt service obligations. This would clean up a significant part of the doubtful assets of PSBs and other financial institutions while providing a fresh lease of life to the Discoms.

Exposure of PSBs to stressed private sector projects in infrastructure and steel may be of the order of Rs. 4 lakh crore and a substantial part of this debt may have to be written off in the process of project restructuring, especially in power and steel sectors. As such, recapitalisation of PSBs would have to be at a far greater scale than the planned infusion of Rs.70,000 crore spread over four years. Moreover, PSBs have generally lent between 50 to 65 per cent of the project debt with the balance coming from private sector banks such as ICICI, Axis Bank and IDFC, besides NBFCs like L&T Finance and PTC Financial Services. In addition, IIFCL has lent significant amounts in different infrastructure sectors while PFC has a large exposure in the power sector. If all these are clubbed and steel is also added, the debt exposure in the stressed projects may exceed Rs. 6 lakh crore, of which about Rs. 3 lakh crore may not be recoverable, thus implying huge haircuts all around, coupled with a large volume of budgetary support. If the total liability on account of Discoms and private sector projects is added, haircuts and budgetary support of about Rs.6 lakh crore (US $ 100 billion) may be required to restore the health of PSBs and other financial institutions.

Unsustainable projects

Owing to gold plating, delayed construction and other constraints such as lack of fuel availability and a significant rise in fuel costs, a large number of projects are no longer viable. Their unviability is rapidly growing on account of additional capital costs comprising interest during construction and cost escalation. As a result, the present or future operating cash surpluses (EBITDA) of most projects would be insufficient to cover the interest burden by a fairly wide margin. Under these circumstances, the only way they can survive is by a significant increase in their tariffs or through other forms of reliefs. Since all such reliefs would go beyond the respective contracts and their burden would have to be borne either by the public exchequer or by the users, various watchdog institutions as well as public opinion would not allow such reliefs. The brunt would, therefore, have to be borne by PSBs, other financial institutions and project sponsors. A credible mechanism would, therefore, have to be evolved and operationalised to apportion the haircuts among these stakeholders while a significant part of the residual liability would ultimately have to be borne by the Government.

Haircut for project promoters

There can be no mistake that while PSBs did engage in imprudent lending, the origins of sub-prime infrastructure primarily lay in the greed and corrupt practices of project promoters. They must, therefore, bear bulk of the burden and should have the wisdom to recognise that if they fail to do so, a Supreme Court like intervention may soon descend on them and the money trail of their transactions could bring to light many an economic offence, including fraud. Therefore, they should help in resolving the problems in good time and in a collaborative, rather than adversarial manner.

The haircuts may have to range from part transfer of equity to outright sale of projects to other entities at the prevailing market price. The promoters may also have to sell-off some of their profitable assets in order to generate the requisite funds for revival of their stressed projects. Take-overs, mergers and acquisitions may also be necessary. It seems that most promoters would not easily agree to such arrangements and would continue to lobby for soft options. Unless the Government is able to make its intent clear, the vain hopes nursed by the respective lobbies would prevent any resolution of this deep-rooted crisis. It should be clearly understood that any effort to delay the requisite action would only increase the pain as well as the consequent haircuts.

Haircut for PSBs

Given the enormity of the problem, haircuts for project sponsors alone will not suffice. As such, PSBs would also have to take substantial haircuts in order to revive the stressed projects. However, PSBs are not equipped to handle the present crisis, especially because they are encumbered with various problems including the short-term perspective of their top brass who typically try and brush problems under the carpet. In particular, they resort to ever-greening of project accounts by extending more bad loans to prevent the existing bad loans from being recognised as NPAs. This is primarily aimed at showing the present managements in better light while leaving the consequences to their successors in office. Instead, they would now need to take the initiative and build a realistic revival package for each ailing project. Where a revival package cannot be sustained by haircuts, the projects will have to be taken over and sold to other entities at the prevailing market price to enable the new entrants to revive and operate these projects while maximising their salvage value.

Bringing offenders to book

If the nation is made to pay an enormous price for the greed and malfeasance of promoters and PSBs, at least some of the offenders must be brought to book. While there should generally be an amnesty-like approach in order to foster investment and growth, those responsible for patently criminal acts of commission and omission must be brought to book and given exemplary punishments that would help uphold the rule of law and also safeguard public interest by creating a deterrent.

Infusion of public funds in projects

The Government has recently announced the National Infrastructure and Investment Fund (NIIF) with a corpus of Rs. 20,000 crore that would be augmented by raising debt. These funds should be gainfully used by investing in the equity of projects that are revived and transferred to new promoters so that the latter can ensure their viability. The use of these funds for the existing promoters should generally be discouraged because that may be seen as putting a premium on wrongful action.

Capacity building in PSBs

PSBs neither seem to have the capacity nor the systems to deal with limited recourse lending for infrastructure projects. Their accountability standards also seem to be very lax. The Government should, therefore, appoint an Expert Committee to make recommendations on how the PSBs should deal with limited recourse lending in the times to come. Or else, past experience will simply send the PSB managements into a withdrawal mode that would obstruct the flow of investment.

Institutional arrangements

Besides the issues brought out above, there is a severe constraint arising from lack of credible institutional arrangements to identify, analyse and resolve this complex crisis.

A culture of avoiding decision-making seems to have overpowered the entire system leading to an all-pervasive lack of initiative as well as unwillingness to take decisions. It is, therefore, necessary to evolve an effective and empowered arrangement to deal with this crisis.

Will PPP deliver?

The answer is a qualified 'yes'. In the past, PPP has certainly been a major instrument in mobilising large volumes of private investment for creation of world-class infrastructure, as documented in several Government publications. For example, the erstwhile Planning Commission brought out that private investment increased from Rs. 2.01 lakh crore in the 10th Five Year Plan to Rs. 7.03 lakh crore in the 11th Plan, thus playing a major role in bridging the infrastructure deficit. Nonetheless, PPPs seem to have fallen prey to greedy and over-exuberant crony capitalists, who acted in concert with wayward PSBs and other institutions to cause irreparable harm not only to PPP as a concept, but also to the economy. However, as the adage goes, the baby cannot be thrown away with the bathwater. PPPs would continue to be indispensable for economic growth, especially as the Government does not have the fiscal space to build infrastructure out of its budgetary resources. The Government must, therefore, take corrective action to cleanse PPP and restore it to order.

Urgency of concerted action

That crony capitalism has been widely prevalent among PSBs as well as the associated institutions should no longer be a matter of debate. It should also be clear that if the underlying malfeasance is not addressed in right earnest, it may soon attract the attention of C&AG, CVC and the Supreme Court. Indeed, the unholy alliance between crony capitalists and public institutions must be restrained if the health of the banking system and the economy is to be restored. This is best done through pro-active interventions by the Government and not through punitive action by external institutions, as was the case in the telecom and coal scams. The urgency of this matter should not be lost, lest it explodes.

Reforms in governance

It should be evident that this large scale crony capitalism was enabled by various acts of commission and omission on the part of MoP and NHAI. A high level Committee should be constituted to scrutinise their role and make appropriate recommendations for preventing recurrence of this phenomenon. Without reform in governance, the potential for damage to national interest would continue to lurk in the background and may strike yet again.

In particular, the power sector continues to be encumbered by an inter-connected chain of monopolies where all bulk power is purchased by state-owned entities for sale to consumers through inefficient, theft-prone and loss-making distribution companies. This has enabled the entrenched interests to perpetuate their stranglehold on this sector. Opening up the supply of power to market-based competition, as mandated by the Electricity Act 2003, should be regarded as a long overdue reform that is necessary to bring order to this wayward sector.

Conclusion

In view of the enormous importance and complexity of the issues involved, this crisis would need to be addressed at the highest levels with a clear demonstration of the requisite political resolve. This would be entirely consistent with the Government's own programme of cleaning up the PSBs and other institutions of governance. At any rate, without concerted and timely action, the development goals of the Government would remain challenged for want of revival of the investment cycle, which in turn would slow down the growth in incomes, employment and welfare that constitute the very essence of good governance.

{The author is former Principal Adviser (Infrastructure & PPP) in Planning Commission. The views are personal.}

Annexes

Annex I	Infrastructure: A Policy Logjam: A Discussion Paper
Annex II	Comments of Reserve Bank of India on "Infrastructure: A Policy Logjam"
Annex III	Observations on the Comments of RBI on "Infrastructure: A Policy Logjam"

<u>*Discussion Paper*</u>

Infrastructure: A Policy Logjam

The rapid expansion of PPP projects has vindicated the belief that significant volumes of private investment can be mobilised for financing infrastructure. However, experience gained in this process has also revealed a number of problems. Indiscriminate lending by commercial banks has led to 'gold plating' of infrastructure projects that may either raise consumer tariffs or cause defaults in debt service. Several power generating stations are stranded without assured fuel supply. This may have three significant consequences. Firstly, some projects may simply become unviable. Secondly, the banking system may face difficulties on account of the growing volume of NPAs. Thirdly, banks will shy away from new projects, thus restricting the growth of the infrastructure sector which in turn will slow down the growth of the economy as a whole. This sub-prime[1] lending, predominantly by public sector banks, reflects inadequate due diligence and malfeasance as does the persistence of policy logjams which impede project implementation. Lack of transparency continues to encourage rent-seeking by entrenched interests. These failures of governance would have to be addressed. The impact of these policy logjams on economic slow-down should be carefully assessed and instead of allowing the problem grow, the government needs to take proactive remedial measures.

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[1] The term sub-prime refers to the credit quality of particular borrowers, who have weakened credit histories and a greater risk of loan default than prime borrowers. It implies giving loans to people who may have difficulty in maintaining the repayment schedule.

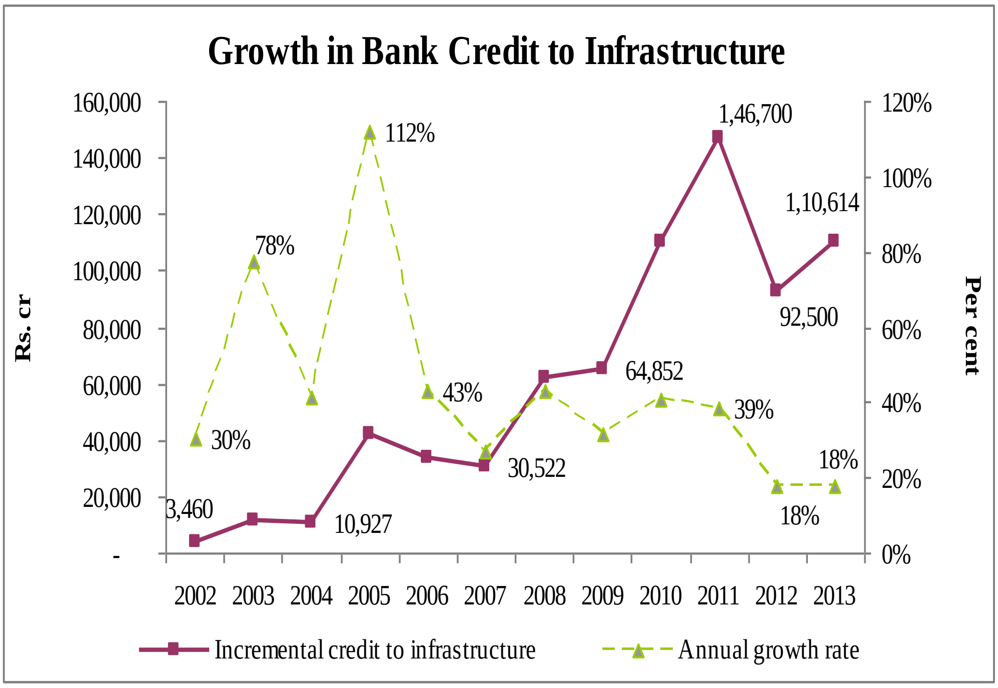
The sub-prime crisis, which erupted in 2007 with a housing bubble, started off as a mere crisis localized in the US. But soon the crisis spread to other markets cutting across geographical boundaries and became a severe economic crisis. The sub-prime crisis was the result of excessive amounts of loans made to people who could not afford them and excessive amounts of money thrown into the mortgage arena by investors who were very eager for high-yielding investments.

When faced with higher mortgage payments, the borrowers fell behind their payments and banks started repossessing their houses. However, problems cropped up when banks attempted to sell these houses. Because of higher interest rates, people became more cautious in borrowing to buy houses and there occurred a general slowdown in demand in the housing market. This led to banks holding assets that people were not just willing to buy.

Poor lending was the core of sub-prime crisis. The issue of lending is commonly viewed as a principal-agent problem. There are three aspects of principal agent problem: adverse selection, moral hazard and monitoring. The first and the third aspects are related to the lender and second to the borrower. The bank should try its best to select its customers judiciously after appropriate screening and this should be followed by a rigorous monitoring because bank will hold this asset on its balance sheet, till it returns duly with interest. The sub-prime crisis arose because the need to monitor was considered redundant in a securitized regime, as there was an implicit faith in the ability of the collateral to recover the money lent. There was an implicit assumption that if the borrower in the credit market cannot payback, it may not be of any significance when asset markets are functioning. However, the collateral may be a risky asset whose value may fluctuate. The sub-prime crisis demonstrated that relying on the asset market for realization of dues was counterproductive, even when the asset was as solid as a real estate.

Large volumes of debt have been disbursed by banks for construction of infrastructure projects over the recent years. In absolute terms, the compounded annual growth rate of credit to the infrastructure sector has been as high as 42 per cent per annum between 2001-02 and 2010-11. Much of this lending was concentrated in the power and highways sectors. However, this rapid growth in lending seems to have slowed down during 2011-12 and 2012-13 while new sanctions have been conspicuous by their absence over the past several months.

The graph below shows the growth of credit to the infrastructure sector from 2001-02 onwards.

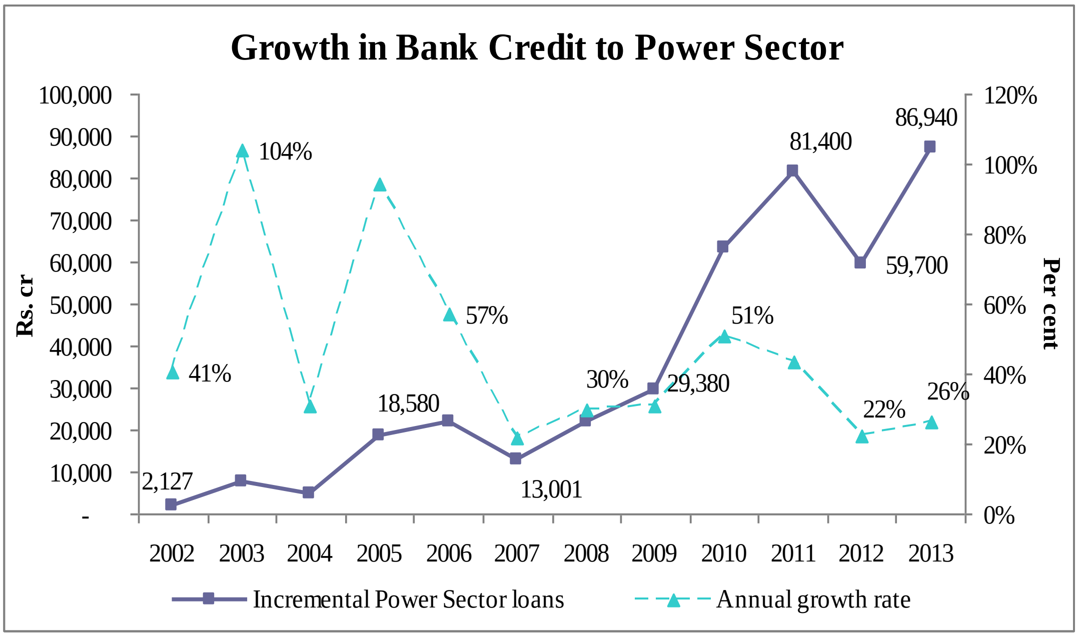


The annual growth rate of credit to infrastructure sector has dropped sharply in 2011-12 and 2012-13 as compared to the past decade which registered a steep growth rate. This decline is unlikely to have occurred on account of the slow down in the economy. While most other industries and services would have suffered from the impact of the economic slow down, its impact on infrastructure projects would have been limited because the demand for infrastructure services continued to remain robust on account of the accumulated deficit of the past several years. Thus investments in infrastructure projects continued to be viable and attractive. Yet they showed a declining trend which can be attributed primarily to two significant factors. Firstly, several policy logjams such as those relating to environment clearances, land acquisition, fuel supply and slow roll-out of new projects affected the pace of investments. Secondly, there was a growing squeeze on fresh sanctions by banks leading to a decline in investments.

While the aforesaid policy logjams may have affected the sentiment in the banking community, the banks seem to have stayed away from new projects primarily because many of their past investments ran into difficulties. Though several steps have been taken in the recent past to resolve policy issues, little attention has been paid to the causes and remedies associated with the declining bank credit to the infrastructure sector. It seems that the nature and extent of this problem have not been adequately analysed and recognised. In fact, the problem appears to be far more serious than the prevailing perception which tends to focus on policy issues alone. An attempt has, therefore, been made in this paper to define the problem in the first place.

Power sector

The sharp increase in bank credit to the power sector from 2007-08 onwards is evident from the graph below:



The total exposure of banks to the power sector alone exceeds Rs. 3 lakh crore, the bulk of which relates to generation projects. Most of these projects are under construction while a few have already been completed; but several of them don't have the requisite fuel supply for generating electricity. A number of new power stations based on gas are lying idle because domestic gas is grossly inadequate while imported gas is not affordable, especially for off-peak generation. As a result, even the older plants have been forced to operate at low levels of capacity utilisation and as such, the question of supplying gas to new plants does not arise until domestic gas production as well as imports increase significantly. The problem is equally serious in the case of coal-based generating stations. Here again, domestic production is significantly short of demand while sufficient coal is not being imported due to pricing issues.

The stranded capacity arising out of inadequate fuel supply is presently estimated at 16,000 MW which would account for bank loans exceeding Rs. 50,000 crore. This is likely to increase as more projects get completed in the coming years. Some of it may be salvaged by an increase in the supply of imported fuel, but that will also increase the payment obligations of distribution utilities who may not be able to pass on this burden to their regulated consumers. In the absence of open access, the market mechanism for sale of power is missing and the distribution utilities may simply opt for reduced purchases of expensive power by enforcing more power cuts. In the bargain, bank loans of over Rs. 1,00,000 crore could be under stress while a large number of sanctioned loans would continue to witness low drawdowns in the current scenario.

How did the banks lend to such power projects in the first place? Evidently, they were oblivious of the structure of the power sector that has not yet opened up to allow direct sale of electricity from producers to consumers, who continue to be solely dependent on the distribution company of their respective area. Since producers don't have access to consumers, they can only sell to the distribution companies which are mostly state-owned monopolies carrying large losses on their respective balance sheets. Sale of bulk power to these distribution companies is typically based on long-term power purchase agreements (PPAs) which must rely on the 'credit worthiness' of these distribution companies. Yet, the banks readily agreed to finance such PPAs with the implicit assumption that the distribution companies will be able to pay for more power and that too at a higher price. That the losses of these distribution companies had shown a rapid increase over the past decade did not seem to matter to the banks.

Thanks to the lack of professional competence and diligence in the Power Ministry, the standard bid documents (SBDs) for private participation in generating projects allowed the fuel price risk and the fuel availability risk to be borne by the power producers. This violated the well established principle that a risk must be allocated to that party which is best suited to manage it. The logic is quite elementary and it should have been evident to all concerned that no power producer can bear the risk of gas or coal prices which are beyond its control except in the case of captive mines. Yet the SBDs allowed the power producers to bear this risk.

So far as availability of fuel is concerned, gas and coal are not available in the open market in India, hence power producers have to rely largely on allocations of fuel supply by the Central Government which in turn is constrained by the inefficiencies of monopoly producers such as Coal India Limited (CIL). As a result, fuel availability is also beyond the control of power producers as they cannot access supplies from a free market. Yet the SBDs allowed the availability risk to be borne by the power producers. If the Power Ministry had subjected its SBDs to inter-ministerial consultations and expert scrutiny, these failures may have been averted. For some reason, external consultations and scrutiny were simply shut out.

What is even stranger is the fact that private power producers not only agreed to bear the fuel related risks, they also bid aggressively for the power projects based on the aforesaid SBDs. This behaviour of private sector entities is simply inexplicable. Either they were an ignorant lot, which they don't seem to be. Or they were supremely confident of 'fixing' the system as and when the need would arise. Neither thought is comforting.

The biggest puzzle in this imbroglio is the behaviour of banks who lent several thousand crores of rupees to each of the power projects which were based on patently unsustainable contracts. The lenders would have known that repayment of their loans would depend on the revenue streams arising out of the respective PPAs and as such, the viability and security of their loans would depend on the terms of these PPAs. Obviously, if the sale price of electricity was fixed under the respective PPAs but the cost of fuel was open to significant increases, the power producers would be left with no option but to default on debt service. Similarly, if the power producers did not have a firm and binding contract for fuel supply, shortfall in fuel supply would also cause defaults in debt service.

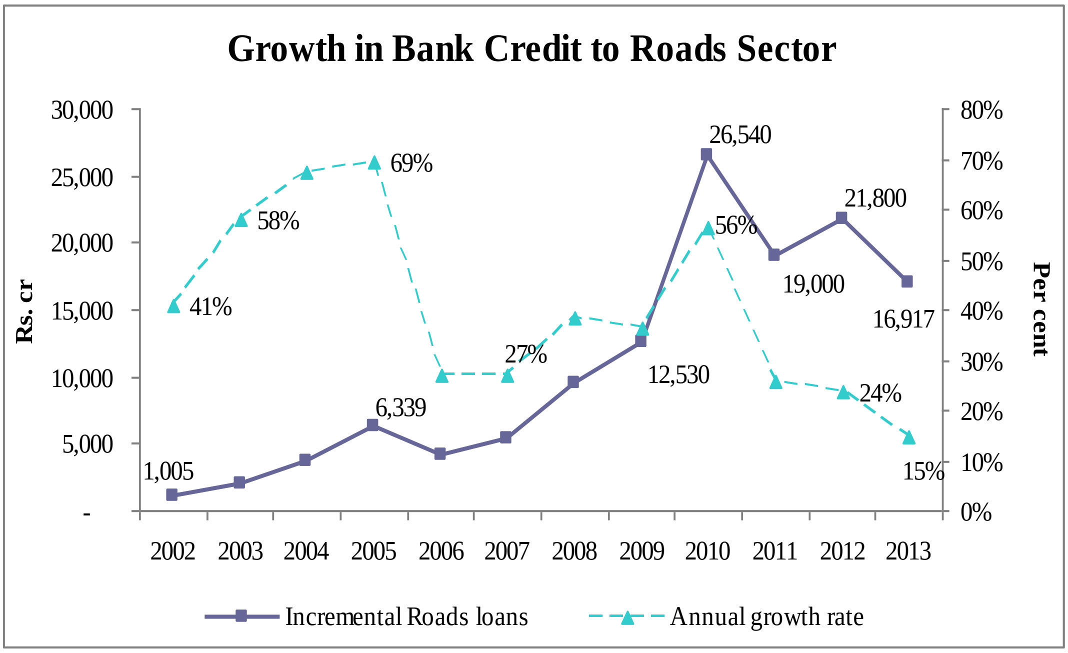
The banks evidently lent enormous sums of money to power producers who were encumbered by the fuel price risk as well as the fuel availability risk. This could well be described as 'banana banking'. Even in the mid-1990s, the construction of a 1,000 MW power station in Andhra Pradesh failed to take off because its lenders did not accept a fuel supply arrangement that was not binding and enforceable. Yet 15 years later, all the experience and regulation notwithstanding, there were projects galore that received huge bank loans despite enormous risks relating to fuel supply.

Sooner than later, the birds have come home to roost. Several projects are unable to secure the required fuel supply. Some others are unable to bear the rise in fuel prices. As a result, many projects are in deep trouble. Their efforts to 'fix' the system have not borne fruit because the environment is far too cautious following the exposure of several 'scams'. As a consequence, banks are stuck with a large number of power projects that are waiting to be declared as NPAs (non performing assets). Predictably, banks have retreated into their shells and are shying away from further exposure in the power sector.

The problem is not confined to private sector projects alone. Banks have lent over Rs. one lakh crore to state-owned distribution utilities primarily for funding their current losses. Any banking system that lends on such a scale to finance entities that are evidently unviable cannot be regarded as prudent or responsible. As a result, the Central Government and the respective State Governments have been forced to provide a bail-out package that would never have been needed if the banking system had followed what would be regarded as well-settled practices associated with bank lending. Unfortunately, most of these problems seem to reside in the public sector banks. In fact, the manner in which public sector banks have lent enormous sums of money for the power sector raises serious issues relating to their functioning as well as regulation. Given the increasing reliance on private investment and commercial borrowings for building infrastructure, it seems critical to restore the orderly functioning of the banking system.

Highways sector

The growth in bank credit to the highway sector has been equally rapid as shown by the chart below:



The story of indiscriminate lending is no different in the case of highway projects. In fact, a greater onus rests on the banks as they actually converted viable projects into unviable ones by actively engaging in 'gold plating' of capital costs. Under the prevailing system, NHAI typically engaged private consulting firms to estimate the project costs based on current prices as well as the traffic revenues based on the projected levels of traffic. The viability of each project was thus established by NHAI in the form of a Feasibility Report and bids were invited from pre-qualified bidders on that basis. The selected bidders, however, took much larger loans for these projects. The justification was provided by the cost estimates prepared by similar private consulting firms hired as the lenders' engineers, but paid for by the concessionaires. The lenders' engineers often produced cost estimates and traffic projections which were very different from the estimates provided by the consultants of NHAI. It appears that no effort was made to reconcile the two estimates, both of which were provided by private consulting firms, or to go into the causes of such divergence before accepting highly exaggerated costs and traffic projections. With the benefit of hindsight, it can now be asserted that the estimates provided by the consultants of NHAI were not on the lower side because NHAI has subsequently received substantially lower bids for its own EPC contracts based on similar estimates.

Owing to lack of 'due diligence' by the banks (or was it collusion?) 'gold plating' seems to have acquired unsustainable proportions in a large number of projects. While the extent of 'gold plating' has varied from case to case, a few selected examples are given below:

(In crore Rs.)

Sl. No.	Name of the Highway	Approved TPC (in cr. Rs) (less VGF)$	Project cost approved by Banks	Excess over TPC (% in brackets)
1	Guj/Mah. Border- Hazira	953	2419	1466 (154)
2	Gurgaon-Jaipur	1674	3009	1335 (80)
3	MP/ Mah border-Nagpur	679	1971	1292 (190)
4	Pimpalgaon-Gonde	752	1691	939 (125)
5	Amritsar-Pathankot	577	1445	868 (150)
6	Pune-Sholapur	623	1371	748 (120)
7	Mah.border-Dhule	743	1420	677 (98)
8	Panaji-Karnataka Border	196	832	636 (324)
9	Kishangarh-Beawar	722	1305	583 (81)
10	Trichy-Karur	487	1061	574 (117)
11	Vadankancherry-Thrissur	373	874	501 (134)
12	Talegaon-Amravati	403	888	485 (120)
13	Zirakpur-Parwanoo	178	475	297 (167)
14	**Total**	**8360**	**18761**	**10401 (124)**

$ Total amount of VGF for projects at s.no. 1,3,5,6,8,10,11,12 &13 was Rs 2,161 crore. S.no. 2, 4, 7 & 9 got no VGF

The above implies that one set of consultants, hired by NHAI, provided a detailed estimate of project costs and traffic volumes in their Feasibility Reports while another set of similar consultants, hired by the lenders, virtually doubled the project costs in several cases and also projected a higher level of traffic to sustain these higher costs. It seems the lenders were happy to accept the higher costs without questioning why the Feasibility Reports of the respective projects were being summarily junked by the lenders' engineers. The more serious implication of this practice is the large uncovered exposure of banks. The concession agreements typically restrict the termination payments to the cost estimates provided in the Feasibility Reports *plus* 25 per cent thereof to cover for interest during construction and other costs and contingencies. Any debt in excess of such amounts is unsecured and banks must normally hesitate in taking such exposures. However, banks in India seem oblivious to what would normally be evident to any observer well versed in banking practices. Evidently, some of these projects may not be able to discharge their debt service obligations, especially because the bloated traffic projections provided by the lenders' engineers may not fructify. Thus, perfectly viable and well-structured projects may run into serious difficulties, thanks to India's 'banana banking' which is so very subservient to crony capitalism.

In the case of a particular highway project, the banks lent an additional Rs. 500 crore several years after its construction was completed. The loans thus disbursed were evidently not meant for construction of the project and were, therefore, siphoned out by the concessionaire and used elsewhere. Having made his buck, the concessionaire has reportedly defaulted on several of its obligations, leaving the lenders and the users to bear the brunt. In case this project gets terminated for any reason, the balance sheets of the respective lenders could be jeopardised.

In a large number of highway projects, the banks have committed patent errors bordering on malfeasance, as the excess loans disbursed by them are unsecured and contrary to prudent practices, especially as they represent a large element of 'gold plating' of capital costs. Under the extant contractual framework, the respective concession agreements can be terminated at any time on account of default by the concessionaire. Upon such termination, the project has to be taken over by NHAI which must repay 90% of the outstanding debt that was raised for meeting the capital costs specified by NHAI in its bidding documents. Any debt which exceeds the ceiling set by NHAI in its concession agreements does not qualify for termination repayment and the banks may fail to recover the same as it is unsecured debt.

The above phenomenon has caused stress in several highway projects and the banks seem wary of the possible fall out. As a result, they seem to have slowed down on further lending by imposing several onerous conditions on new borrowers, which implies that further investments in the highway sector appear to be challenged. No doubt some of the conditions now imposed by the banks should have always existed, but at the same time banks should be willing to engage in 'limited recourse' financing on the basis of well-accepted international practices. Unless the banks build the capacity necessary for dealing with limited recourse financing of capital-intensive infrastructure projects, recurrence of sub-prime lending may continue to persist.

Excess gearing

According to an analysis undertaken by an international investment banker, banks have lent large sums of money to some infrastructure companies while making significant departures from the prudential norms. It has pointed out cases where the net gearing of loans, as compared to the net worth of the respective firms, exceeds 500%. When loans to such companies turn into NPAs, the banks will feel the heat directly. This requires closer scrutiny by the banking regulator followed by remedial action where necessary.

Manipulative financing

The practice of 'gold plating' of project costs has multiple dimensions which need to be recognised and addressed. Continued tolerance of 'gold plating' can lead to several unintended consequences, including sickness in the affected projects and sectors. In particular, the scale at which it seems to have occurred cannot be overlooked or wished away. Besides the evidence relating to specific highway projects mentioned above, there is a general perception that significant padding of costs is a common phenomenon that enables project sponsors to play on public money with a negligible stake of their own. An illustration of the prevailing perception can be seen from the following slide which formed part of a power point presentation made by an international investment banker.

Who is responsible for this mess?

- *Coal India signed 'coal linkages' left, right and centre…*
- *… which did not have any legal sanctity, probably under political pressure.*
- *Promoters bid aggressively to bag the projects and raise equity.*
- *Risk appetite rises when its other peoples money ….*
    - *Put Rs. 500 cr promoters equity, raise 1500 cr at 3x book for 50% stake*
    - *Now you have a 2,000 cr equity company with 50% stake*
    - *Borrow 4,000 cr Project cost 6,000 cr*
    - *Buy Chinese equipment worth 3,000 cr… and …*
- *If successful you still have 50% stake in a big company, else ….*
- *Banks could see the entire project pipeline and SEB debt and were in the best position to foresee the coal shortages and lower merchant tariffs.*

If the above is true even for some of the projects, it implies that the banking system was engaged in financing the debt as well as the equity components of large infrastructure projects, leaving little stake or risk to be borne by the project sponsors. In some cases, the sponsors may have recovered all their investments plus some more even before their projects began commercial operations. This seems to suggest that several such projects would be encumbered by the burden of inflated capital costs that would either lead to higher consumer tariffs or cause the loans to be NPAs. In either case, the economy will face the adverse consequences that would also affect further investments in infrastructure projects.

The aforesaid malfeasance also poses issues relating to the nature and extent of ‘due diligence’ relating to infrastructure lending by the banking system. Since these loans are usually very large and cannot be supported by collateral guarantees from project sponsors, the international practice is to rely on ‘non-recourse’ or ‘limited recourse’ lending, which means that the assurance of timely debt service must arise mainly from project assets and not from corporate balance sheets or guarantees. This requires extensive ‘due diligence’ relating to the viability of the project, based on the detailed terms of its contractual framework. Banks in India do not seem to have recognised this proposition and have failed to create the capacity or the institutional arrangements necessary for such ‘due diligence’. On the contrary, they continue to lend as if they are lending for an industrial project where much reliance is placed on collaterals, group exposure and other prudential norms while project revenues are left to market forces as distinct from PPP projects which primarily rely on long-term contracts with public authorities which determine the timing and quantum of project revenues. As a result, Indian banks are yet to acquire the capacity and mindset necessary for dealing with ‘non-recourse’ lending to infrastructure projects.

The Dilemma

As explained above, ‘gold-plated’ infrastructure projects may bring their own set of problems. So will stranded power projects. A sharp rise in NPAs may push the banks to the other extreme of ‘due diligence’ that would inevitably lead to a squeeze on lending which may compel some of the project sponsors to abandon their projects or seek concessions from the Government. As a result, investment in infrastructure is likely to slow down while the demand for concessions may add to the controversies surrounding the very concept of private participation.

There seems to be a chorus emerging from several private sector companies who want re-negotiation of their respective contracts. Project sponsors selected through open competitive bidding now want modifications in the bid conditions *post* contract award. The well-founded notion of sanctity of contracts is thus being sought to be sidelined in the name of expediency and pragmatism. These trends may have serious repercussions that need to be understood. As it is, PPP projects are viewed in some quarters as vehicles for undue private gains. Phrases like “privatisation of profits and nationalisation of losses” are gaining increasing currency. There are indeed several projects of the past that actually justify this viewpoint. Any further concessions that violate the sanctity of contracts in order to provide gains to private entities at public expense are bound to discredit the very concept of PPPs, which may even become synonymous with crony capitalism. The private sector would thus have killed the hen that laid the golden eggs.

The Government seems to be struggling is the whole business of rent-seeking and crony capitalism, which is not uncommon in emerging economies. This seems to affect the development dialogue in two ways. Whenever crony capitalism occurs in sectors or projects, it attracts criticism from watchdogs such as the C&AG as well as from the civil society which tends to slow down further growth. On the other hand, wherever it is obstructed by forces within the Government and without, it tends to complicate the decision-making process that often leads to a stalemate. While different forms of crony capitalism may have accelerated the pace of investment in PPP projects of the initial stages, this cannot continue unabated, especially in light of the exposures and failures of the past. However, it would take some time to restore balance and ensure adherence to fair and transparent processes. As a result, investment may tend to slow down for the next few years unless proactive measures are taken to speed up the process.

Independent of the above, critics have been quite vocal in the recent past about what they describe as a “policy paralysis”. Some of it arose because of barriers posed by environmental and other regulatory clearances, land acquisition etc. This was partly an outcome of the growing concern for the environment on the one hand and a reaction to the excessive land acquisitions for private projects, such as the SEZs on the other. After much damage and delays, the Government seems to be taking proactive action aimed at resolving various conflicting considerations in a few selected cases. This is only a beginning. Much more would need to be done in order to make any impact on the economy as a whole.

It is premature to think of an epitaph for PPPs as some of its critics may suggest. The fact is that the investment needs of the infrastructure sector have been growing rapidly while public investment has remained virtually static. Continued reliance on private investment is, therefore, inevitable. In this scenario, it may be useful to recognise that there are sufficient checks and balances in the Indian system that would continue to challenge any significant compromise of public interest. However, the ensuing debate as well as lobbying by diverse pressure groups may create policy logjams that could relegate economic growth to a back seat, at least for a while. The conflicting interests and diverse objectives clearly present a dilemma that seems hard to resolve. As a result, the hope of $ 1 trillion investment in infrastructure during the Twelfth Five Year Plan seems to be receding by the day.

The cynical view point

Each of the infrastructure sectors seems caught in some form of policy logjam that has slowed down the pace of investment. The process of governance seems to have acquired a centrifugal character where individual constituents are flying off in different directions. When an orderly circus is performing, multiple characters, species and contraptions play diverse roles, albeit with perfect coordination and harmony that form part of a thematic unity. In contrast, the present state of governance resembles a chaotic circus where individual agents seem to be performing at will, unmindful of the ringmaster, while the audience is amused, amazed and frustrated by the individual acts that often represent chronic and wilful wrongdoing.

Corruption seems to have become commonplace by virtue of its frequent exposure in different forms. Accountability is conspicuous by its absence. There is one hundred per cent tolerance for non-performance. As a result, the economy may continue to grow by about 5 per cent per annum, by force of its sheer momentum, and despite the Government. No more should be expected.

Way Forward

Has the plot been lost beyond redemption? Can the circus be brought to order ?? Is there a way forward ??? The short answer is that India can hardly afford to give up. There is simply no choice except a renewed pursuit of revival. There can be no doubt that with sufficient resolve and concerted action, a revival is certainly within the realm of possibility. But it is easier said than done. An enormous effort would be necessary.

The prevalent malfeasance has imposed a cost on multiple stakeholders who are affected in different ways. Any worthwhile corrective measures would require some of the influential players to bear the additional costs or take haircuts. These additional costs are neither easy to quantify, nor do they lend themselves to equitable apportioning, especially in the face of strong lobbies of private sector participants. In the emerging imbroglio, conflicting interests accompanied by the force of lobbying would tend to cause stalemates that may hold up investment and growth. That is where the role of Government comes into sharp focus. If it continues to act as a ‘soft state’, the various pressure groups are likely to obstruct consensus building aimed at fair outcomes. On the other hand, if equitable solutions are pursued with the requisite degree of firmness, accelerated growth can be expected with greater assurance.

The strategy for revival may need to be two-pronged. First, the Government must follow the path of extensive engagement with all principal stakeholders, especially for arriving at a balance between public interest and the private sector perspective. In particular, excessive dominance of the incumbent players must give way to inter-ministerial and inter-disciplinary consultations. The objective should be a fair and equitable order. Second, it must begin by taking symbolic actions that give clear signals of its intent to the entire cast of characters. The requisite level of professionalism, accountability and honesty of purpose would have to be demonstrated in selected initiatives, coupled with low tolerance towards apathy for outcomes. In addition, individual incentives would need to be realigned. Those who perform would have to be recognised and encouraged while those who don't must be isolated and sidelined. This would not require any mass action. Mere demonstration in a handful of cases would do the trick. For people tend to respond to clear signals from the leadership.

The critical area that needs to be addressed on priority is the revival of investment in the infrastructure sector which can act as the engine of growth. This is also an area where governance can make a direct and visible impact. To facilitate the restoration of confidence followed by accelerated investment and growth, the three areas of high priority are governance, governance and governance!

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RESERVE BANK OF INDIA
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गवर्नर
GOVERNOR

July 23, 2013

Shri Gajendra Haldea
Adviser to Deputy Chairman
Planning Commission
Yojana Bhawan
Sansad Marg
New Delhi - 110 001

Dear ~~Shri Haldea~~: Gajendra,

You were kind enough to send me a copy of the Discussion Paper "Infrastructure: A Policy Logjam". I passed it on to the Reserve Bank's Research Division and am happy to attach their comments. I do hope you will find these comments useful in taking the policy forward.

Best regards,

Yours sincerely,

[D. Subbarao]

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Department of Economic and Policy Research
(Structural Issues Division)

Comments on "Infrastructure: A Policy Logjam"

Paper in Brief:

Characterising the problems in the infrastructure sector as a case of policy logjam, the paper attributes these to two factors *viz.*, policy inaction in areas, such as, environment clearances, land acquisition and fuel supply, and imprudent bank lending practices that have subsequently resulted in a squeeze in fresh sanctions by banks and thus to a decline in overall investments in infrastructure.

The focus of the paper is more on the issue of indiscriminate lending (without due diligence) by commercial banks that is said to have led to **'gold plating'** of infrastructure projects that may either raise consumer tariffs or cause defaults in debt service. The paper further adds that careless bank lending in the past is the cause of lack of investment in infrastructure today as banks are shying away from financing of new projects. The enormous bank lending to power sector has been termed as **'banana banking'** as the banks overlooked fuel price as well as the fuel availability risks. Similarly, banks financed unviable road projects with inflated capital costs.

Our Comments:

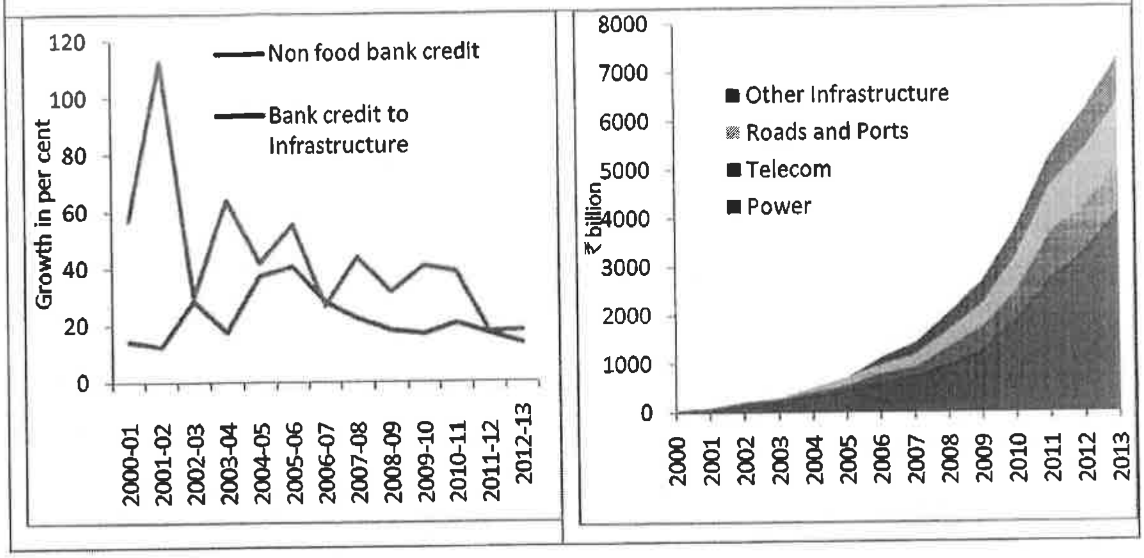
The paper highlights a wide range of issues which need to be addressed at the Government level. We have not commented on these issues but have covered the regulatory and supervisory aspects of infrastructure financing by the banking system.

- While it is a fact that delays in policy decisions in several areas have created severe bottlenecks and impeded timely implementation of infrastructure projects, it would not be appropriate to categorise the slowdown in infrastructure lending by banks as a policy logjam.
- The public sector banks played a supportive role in infrastructure development and the overall growth of the economy during the 2000s. India being a growing economy required modern infrastructure and given the size of the country, huge

investments from public as well as private sector were needed. In India, banks are the prime source of credit intermediation, especially in areas which require huge investments and have long gestation periods. Corporate debt market is not sufficiently developed to be able to finance the infrastructure financing requirements. During the 2000s, the PPP mode of financing infrastructure projects had gathered momentum, with the Government looking for support from banks for financing infrastructure projects on a large scale. Keeping these factors in view, banks, particularly the public sector banks (PSBs) became the main source of financing of infrastructure projects. In such an environment where lending to a particular sector was seen as a thrust area, a certain element of adverse selection of borrowers by banks could have taken place, with infrastructure lending growing by 40 per cent per year during 2004-2011.

- As regards bank credit to infrastructure sector, there has been a significant moderation in growth to 18 per cent in 2011-12 and 2012-13 in line with the overall slow-down in the economy along with enhanced risk aversion associated with deterioration in asset quality. Composition of bank credit to infrastructure shows that more than half of it goes to power sector (Chart 1). Notwithstanding some deceleration in recent years, bank credit to power sector has been growing at a rate (24 per cent) higher than that of bank credit to infrastructure. Besides, it is well known that power projects today are stalled not because of lack of credit but because of lack of assured supply of fuel and uncertainty with regard to coal pricing and tariff issues towards which Government has recently taken some measures. After power, banks have the second largest exposure to roads where projects are stuck because of delays in obtaining requisite clearances such as land acquisition, environment and forest. The sector which has seen the maximum dip in bank credit within infrastructure is telecom, particularly since January 2012 when 2G licences were cancelled. Thus, credit moderation to infrastructure sector is a consequence of sector-specific issues/bottlenecks.

Chart 1: Bank Credit to Infrastructure: Growth and Composition



- This is not to underplay the important role that appropriate project selection by the PSBs could have played in saving the valuable funds for being used for productive purposes.
- An issue that could have played a role in banking sector rushing headlong in to such risky projects is the regulatory forbearance that has been provided in the form of restructuring norms for such exposures with first signs of stress[1]. The moral hazard induced by such forbearance cannot and should not be underestimated, specifically when the decision makers in PSBs only have a limited tenor implying that the realized risks of such decisions for all practical purposes will not be borne by the decision taking regime. As the recent restructuring of SEB loans showed, the old banking adage "If you owe a bank a thousand, you have a problem; owe the bank a million, the bank has a problem" still holds good. However, such forbearance is now

[1] The total restructured standard advances (for all sectors including infrastructure) for the industry stood at ₹ 3,06,489 crore as at the end of March 2013 which had sharply increased by 39.9% over ₹ 2,18,963 crore in March 2012. The ratio of restructured standard advances to total standard advances increased significantly from 4.7% to 5.7% during the same period. The gross NPA in infrastructure segment has increased from 0.75% as on March 31, 2012 to 1.4% as on March 31, 2013.

being phased out and with that there would be significant impact on the individual balance sheets of PSBs with attendant effect on overall financial stability.

- It also needs to be acknowledged that the capacity to appraise large projects doesn't exist in PSBs. Most of these are consortium accounts which by necessity of following L1 norms or lead bank norms gets appraised by a chosen few PSB owned merchant bankers who are never held accountable for their projections. Some of the safeguards like project visits are carried out. But there is no clear benchmark in terms of projected construction and actual completed work. The scale of lack of expertise is so significant that for some of the restructured accounts, the consequent fair value diminution is being computed for the banks concerned by the merchant banker.
- The compensation in the non-PSBs is aligned to the P&L contribution and hence their portfolio is more likely to be aligned to those segments where the expected return vs. expected risk is likely to be maximized. The PSBs have no such compensation practice. The incentive structure for the top management of PSBs was driven, till recent past, by the Statement of Intent (SOI) with the Government of India. The SOI added more importance to balance sheet expansion. The easiest way to do that was through big ticket loans. Infrastructure projects naturally offered the opportunity to expand banks balance sheet at a much faster pace. Lending to infrastructure was also perceived as being in sync with the public policy focus.
- The issue of gold plating as stated in the discussion paper may be true. However, regarding other issues, particularly highway projects, the paper notes that the cost of project by NHAI at the time of bid has been found to be less as compared to what has been sanctioned by the banks. The reason could be that by the time financial closure of the project is achieved after taking all the sanctions, considerable delay would have been observed leading to cost overruns which leads to the project cost at the bank level being high.

- The discussion paper also dwells on the lack of regulatory/supervisory rigour. But it must be realised that there has been a lot of pressure from different stakeholders to dilute the regulatory credit standard/exposure norms to infra sector. The RBI inspection reports have also commented upon this issue. In respect of a particular bank, it had been mentioned in the Annual Financial Report (AFI) for the FY 2012,

  "The exposure to sectors which are stressed such as aviation (Rs.3937 crore), power (Rs.15157.9 crore), telecom (Rs.8123.5 crore) and textile (Rs.15432.0 crore) was substantial and credit/risk/research departments, at different points of time, had put up review notes to different fora including to the Board in September 2011. However, action in terms of enhancement of security package/mitigation framework, limiting or reduction in exposure, forcing customers to adopt better risk management through commodity hedging (oil, power, coal, etc), imposing conditions on state electric utilities or any such measure was not discernible. Guidance from the Board or from Risk Management Committee was also not observed."

  In another AFI report the observations were as follows –

  "Specific industry wise exposure limits were fixed having regard to various risk indicators. However, predisposition of the bank to lend to core sectors, without linking to sector specific yield parameters, a very important performance indicator, had resulted in an advance portfolio skewing towards infrastructure sector (much more than that of the banking system) without adequate demonstration of optimising the risk – return trade off. "

  These observations may be a pointer to the dynamics of political economy in which PSBs operate and which is frustrating their risk management efforts. In hindsight, it may appear to be inadequate due diligence and malfeasance by the PSBs but this may be true in some cases which can be attributed to rent seeking by entrenched interests. But, the impact of this has been that the banks have been wary of lending to infrastructure projects in recent times.

- For any difficulty that may be faced by banks today for miscalculation of risks and emergent problems which were not foreseen, the costs would have to be borne and lessons to be learnt. It may be noted that research in the global as well as in the Indian context does show that strong balance sheet of companies in a period of economic progress may lead to excessive lending by financial institutions against inflated values of collateral that have the risk of turning into NPAs in a period of recessionary pressures (Bock and Demyanets, 2012, Beck et al.2013, Siraj and Sudarsan, 2013). A better way to handle this is through prudential norms and adequate provisioning which has been India's approach and post crisis is the global consensus. While most of this research is for overall bank lending, lending to infrastructure is no exception. Even though bank lending to infrastructure is a desirable public policy objective, under no circumstances, commercial banks should be lending without proper assessment and sharing of risks.

- We agree with the paper that any reduction in bank credit to infrastructure could slow down growth. But at the same time when several external factors and internal factors coupled with global situation affect the asset quality of banks, it is but natural that the banks exercise more caution. As regards bank lending to infrastructure, one has to recognise that the long term nature of infrastructure financing which is mostly beyond the normal 5-8 year loan tenor of commercial banks is bound to lead to asset-liability mismatches[2]. Recognising this and the decreasing scope for incremental financing by banks, the Reserve Bank has permitted banks to enter into take out financing arrangement with IDFC/other FIs. Another way to enhance long term debt for funding infrastructure is through the Infrastructure Debt Funds (IDFs). By refinancing bank loans of existing projects, the IDFs are expected to take over a significant volume of the existing bank debt and this will release an equivalent volume of fresh lending for infrastructure projects. Three IDFs – one NBFC by ICICI bank and two mutual funds by IL&FS and IIFCL have been launched this year of which one has already started refinancing. In addition, the Reserve Bank has recently announced several measures to boost infrastructure financing, especially for the projects in roads and power sector such as relaxing the ECB norms, treating debt

[2] This has been empirically tested in Box IV.2 of Report on Trend and Progress of Banking in India, 2011-12.

due to lenders in PPP projects as secured finance. But nothing will work if the general sentiment with regard to progress of infrastructure projects remains bleak.

- Comparing infrastructure projects lending with sub-prime lending as done in the paper is, however, not warranted. In the US, banks excessively lent to sub-prime borrowers (without a proper assessment of their repayment capacity) as their purpose was to originate to distribute. Borrowers also borrowed in anticipation of valuation gains. While the PSBs failed to exercise due diligence in financing infrastructure projects in India, these projects have continued to remain on their balance sheets. It may, however, be the case that private entities gained at public expense in some infrastructure projects undertaken under the PPP mode.
- Lastly, we agree that for beyond 5 per cent growth, infrastructure problems need to be sorted out. The paper has rightfully recognised that the strategy for revival of investment in the infrastructure sector calls for arriving at a balance between public interest and the private sector perspective, supported by effective governance on the part of the Government.

सत्यमेव जयते

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जय हिन्द

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GOVERNMENT OF INDIA
PLANNING COMMISSION
YOJANA BHAWAN
NEW DELHI-110 001

D.O. No. 41/ADCH/13

August 12, 2013

Dear Dr. Subbarao,

Many thanks for your letter dated July 23, 2013 conveying the comments of the Reserve Bank's Research Division on the discussion paper "Infrastructure: A Policy Logjam". The comments are indeed candid and bring out the issues in perspective. I have recorded a few observations (copy enclosed) on the aforesaid comments for your perusal.

Having recognized the nature and extent of the problem, it may perhaps, be necessary for the Reserve Bank (as the regulator) and the Finance Ministry (as the owner of PSBs) to contain further damage by taking corrective measures at the earliest.

With regards,

Yours sincerely,

(Gajendra Haldea)

Dr. D. Subbarao
Governor
Reserve Bank of India
Central Office
Mumbai 400 001

Observations on the comments of RBI on "Infrastructure: A Policy Logjam"

The Department of Economic & Policy Research, Reserve Bank of India has commented on the discussion paper "Infrastructure: A Policy Logjam". Brief observations on the aforesaid comments are given below:

General

2. Comments on various issues have been made in perspective by the Economic & Policy Research Department of RBI. However, a few issues deserve further scrutiny.

3. The said comments recognise the "important role that appropriate project selection by the PSBs could have played in saving the valuable funds for being used for productive purposes". This recognition is of great significance because the funds at stake are very large and these comments, therefore, need to be taken to a logical conclusion with a view to initiating corrective action for avoiding recurrence of these practices.

4. It has been noted that "regulatory forbearance" could be one of the factors that allowed PSBs to function in a less than prudent manner. It is felt that though regulatory forbearance may indeed be justified in certain circumstances, it should normally be accompanied by the requisite conditionalities and safeguards that restrain malfeasance or recurrence, especially when the quantum of funds is exceptionally large. A review of such regulatory forbearance, therefore, seems necessary.

Lack of capacity to appraise

5. It has been acknowledged that "the capacity to appraise large projects does'nt exist in PSBs" and they rely on "a chosen few PSB owned merchant bankers who are never held accountable for their projections". It has also been acknowledged that "the scale of lack of expertise is so significant that for some of the restructured accounts, the consequent fair value diminution is being computed for the banks concerned by the merchant banker". This is a very serious and critical issue because PSBs will continue to be the main source of financing for the rapidly growing infrastructure needs of the country. It is

important to take urgent steps to build institutional capacity within PSBs for dealing with large infrastructure projects and also for introducing the requisite accountability.

Gold plating

6. The comments of RBI acknowledge that the issue of gold plating may be true. However, for want of specific information, the issue has been left somewhat open-ended and, therefore, requires further scrutiny. In this context, a list of selected highway projects that involved a significant level of gold-plating is attached for ready reference (Annex-I). The following significant issues arise in this regard:

(a) If the lenders' consultants (whose fees are paid by the borrowers!) had endorsed a sharp increase over the cost estimates provided by NHAI's consultants, was any serious attempt made to examine and reconcile the two before exposing bank funds of such a large magnitude?

(b) The Total Project Cost specified in the concession agreements of NHAI typically provide for a component of about 25 per cent of the construction cost to accommodate physical and price contingencies as well as interest during construction. Moreover, the estimates prepared by NHAI were based on market rates which also included elements such as contractor's profits and other eligible expenditure. A cursory examination by the PSBs would have revealed that the level of gold plating in several cases was patently unjustified and unsustainable.

(c) Even if the above is somehow condoned, the most critical factor from the banking perspective is that while financing of a project within the cost estimate provided by NHAI could be treated as secured because of the obligation of NHAI to provide a corresponding bail-out to the lenders in the event of termination, any amounts in excess thereof were completely unsecured. It would be revealing to ascertain how the concerned PSBs found the requisite comfort for lending such huge *unsecured* amounts.

Lack of regulatory oversight

7. The aforesaid comments make a mention of the prevailing circumstances, pressure from different stakeholders and the dynamics of political economy in

which PSBs operate. While all these factors may be true, they cannot absolve the PSBs and the regulatory institutions of their failure to recognise and address the principal elements of prudent lending to infrastructure projects. This is a critical issue that needs to be pursued urgently as it can brook no further delay. The peculiar elements of such project lending which require policy responses are briefly described below.

Limited recourse financing

8. In the developed economies, infrastructure projects are financed on the basis of "non-recourse" or "limited recourse" lending. This essentially means that lenders usually have no recourse to the balance sheets of the promoters. As such, these projects are financed primarily on the strength of their own assets and revenue streams. Evidently, this implies a far higher level of due diligence than what is normally required for other industrial projects where lenders significantly rely on collateral security and group assets.

9. There is little recognition in the Indian banking system about the nature and role of limited recourse financing for infrastructure projects. Prudential norms such as group exposure, sector exposure etc. are not particularly helpful or relevant for projects based on limited recourse financing. This is especially so in the case of PPP projects which are based on long-term contracts entered into between a private entity and a government entity. This evident lack of capacity and awareness among PSBs has been one of the principal reasons for the emerging stress on their balance sheets. Even more significant is the fact that no institutional or policy responses are yet being contemplated to avoid recurrence of such pitfalls.

10. At the very least, a separate set of guidelines needs to be issued for regulating "limited recourse" lending to infrastructure projects. Ideally, PSBs should be required to set up separate departments for handling projects based on limited recourse financing, especially because they need rigorous due diligence based on a different set of skills.

Conclusion

11. The comments in the RBI paper are candid and forthright. They do not shy away from acknowledging serious issues and lapses. It has also been brought

out that the total restructured standard advances (for the industry including infrastructure) have increased sharply by 40% during the course of 2012-13. Admittedly, the banking system is facing a serious problem that requires clear policy responses that are yet to be thought of.

12. The PPP framework rolled out by the Government was based on a new paradigm. It relied on bulk of the financing to be provided by the banking system, but accompanied by the due diligence normally expected from a prudent lender. The PSBs did respond by doling out large volumes of debt, but they singularly failed in evolving the requisite systems and policies to meet the emerging challenges. The problems they face today were largely predictable but little thought seems to have gone into this enormous exercise.

13. Due diligence by lenders would normally be expected to enforce some discipline on the borrowers in order to minimise malfeasance. In failing to do so, the PSBs have not only exposed their own balance sheets, the resulting problems would also affect the Government as well as the economy in the form of bad debts as well as a slow-down in further investment.

14. The comments of RBI recognise that the banks may have become wary of all lending to infrastructure projects in recent times. In a manner of speaking, the PSBs first imposed a burden on the economy by undertaking irresponsible lending; now they seem to be creating double jeopardy by exercising excessive caution that may slow down the growth of the economy as a whole. Quite clearly, what is urgently needed is a balanced approach.

15. In order to ensure that growth is not affected, the Government as well as the Reserve Bank may need to take some urgent corrective steps after a detailed scrutiny of the issues involved. This would have to be followed by clear policy responses and some institutional restructuring. In sum, the need of the hour is to: (a) ensure that the banking system continues to finance the critical infrastructure needs at the scale and pace necessary for facilitating growth, and (b) institutional arrangements need to be evolved for avoiding the pitfalls of the past.

Annex - I

Excessive lending for Highway projects

Sl. No.	Name of the Project	Approved TPC (in cr. Rs) (less VGF)	Project cost as indicated by IIFCL (in cr Rs.)	Increase over approved TPC (in cr Rs and %)
1	Guj/Mah. Border-Surat-Hazira	953	2419	1466 (154)
2	Gurgaon-Jaipur	1674	3009	1335 (80)
3	MP Maharashtra border-Nagpur	679	1971	1292 (190)
4	Pimpalgaon-Gonde	752	1691	939 (125)
5.	Amritsar-Pathankot	577	1445	868 (150)
6.	Pune-Sholapur	623	1371	748 (120)
7.	Hyderabad – Vijayawada	1460	2194	734 (50)
8.	Mah.border-Dhule	743	1420	677 (98)
9	Panaji-Karnataka Border	196	832	636 (324)
10	Kishangarh-Beawar	722	1305	583 (81)
11	Trichy-Karur	487	1061	574 (117)
12	Vadankancherry-Thrissur	373	874	501 (134)
13	Talegaon-Amravati	403	888	485 (120)
14	Indore-Jhabua-MP/Gujrat border	1175	1524	349 (30)
15	Zirakpur-Parwanoo	178	475	297 (167)
16	Bangalore-Nelamangala	445	717	272 (61)
17	Kalghat-MP – Maharashtra Border	549	782	233 (42)
18	Salem-Ullundurupet	902	1061	159 (18)
19	Delhi-Haryana Border – Rohtak	486	586	100 (21)
20	Pondicherry – Tindivanam	269	315	46 (17)
	Total	**13646**	**25940**	**12294 (90)**