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Case Study of the Private Finance Initiative (PFI) in the UK: Insights for India[1]

Shahana Sheikh[2] and Mukul G Asher[3]

ABSTRACT

This paper has two main objectives. The first is to analyse United Kingdom's experience of of more than two decades of PPP method or procurement in the social sector, through its Private Finance Initiative (PFI) which was introduced in 1992. The second is to discuss insights from UK's PFI experience for similar social sector initiatives in India.

PFI attempted to use methods and practices of project finance for public sector infrastructure projects, specifically for the sectors such as education and health. By 2012, 717 PFI projects were either under construction or in operation across the various departments of the UK Government, with a total capital cost of GBP 54.7 billion, and total repayments amounting to GBP 301.3 billion until the financial year 2049-50. These projects were initiated with the objective of reaping benefits from private sector's presumed project management skills and innovation and risk management expertise, and thereby progressing towards greater output-orientation by the public sector departments. To what extent were the above objectives realised?

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[2] Shahana Sheikh is an Independent Researcher, London, United Kingdom. (ssheikh19@gmail.com)

[3] Mukul Asher is a Professorial Fellow at the Lee Kuan Yew School of Public Policy at the National University of Singapore. He is also a Councillor and advisor to the Faculty at The Takshashila Institution, an independent think tank on strategic affairs and a school of public policy, working towards building the intellectual foundations of an India that has global interests.

This paper finds that the main operational challenges in PFI were related to use of public sector comparators, skill deficits in the public sector, complexity and rigidity of contracts, improper allocation of risks, and lack of transparency of PFI-linked public finances. These led to operational and other reforms in 2012, named Private Finance-2 (PF2). Nevertheless, challenges still remained, primarily in participation of institutional investors, pricing of equity, accounting and budgetary treatment of PFI projects, and estimation of savings from existing PFI projects.

Among the key insights for India arising from the PFI experience are the need for government departments to skill themselves with project management and contract negotiation and monitoring abilities; focusing on whole-life costing of project rather than on only short-term budget costs; comparative analysis of conventional procurement (which in any case needs to be strengthened) with estimation of PPP-linked lull economic costs, including contingent liabilities; understanding implications of risk allocation between the PPP project partners; keeping project financing simple, while focusing on project implementation; keeping channels open to debt holders;and establishing and regularly maintaining information and data systems for performance monitoring as well as for bench-marking of PPP projects. The PPP method should not be used to obtain money. It has high transaction costs and complex governance structures which must be offset by sufficiently large operational efficiencies, and learning capacities of public sector organisations. Governmental decision making structures which can periodically examine existing policies and refine or restructure them is also a good lesson for India.

Keywords

PFI UK, Social sector PPP (Public Private Partnership), Fiscal Risks and Contingent Liabilities, Bundled contracts, Project Management, India

JEL Codes

H 51, H52, H54, H75, L 32, L33

1. INTRODUCTION

PPPs, or Public Private Partnerships, are widely regarded as a potentially useful addition to the traditional method of public sector financing and production of construction and the operations of infrastructure projects and public amenities in contrast to the more conventional practice (Grimsey and Lewis 2007, OECD 2008, Posner et al. 2009). The traditional method would typically involve either public works or setting up a separate public sector organisation for a given project and procurement of capital and other goods and services globally.

The desire to rely to a greater extent on PPPs is not confined to developed economies. Successive governments in India, both Union and State, have been engaged in PPP projects from the late 1990s. Most of these projects have been in physical infrastructure including highways, railways, ports, airports, telecom and power. In 2004, the enthusiasm for such collaborations led to the formation of a 'PPP Sub-Group on Social Sector' at the then Planning Commission of the Government of India which recommended greater use of PPPs for the social sector. However, not much has materialised in terms of PPP projects for the social sector.

Latest data from the NITI (National Institution for Transforming India) Aayog, which has replaced the previous outmoded Planning Commission, suggests that 94 percent[4] of the PPP projects which had been approved since January 2006 by the PPP Appraisal Committee at the Government of India were for either for roads or ports (NITI Aayog 2015). NITI Aayog noted that PPPs had not taken off in "social" sectors and that "there is a need to enhance private investment and coverage in untapped sectors, particularly in the "social" sectors"; and specifically suggested that new PPP models be evolved to enable attracting private investments to various sectors including the "social" sectors (NITI Aayog 2015). More recently, the Union government, led by Prime Minister Narendra Modi, has given indications that it is considering an expansion of this mode of project implementation to the social services sector, especially in education and health sectors.

In comparison, the United Kingdom (UK) possesses a history of PPP procurements through Private Finance Initiative (PFI). The Indian government organisations, at both the Union and the State levels, have the UK's experience available to draw context specific, nuanced implications in designing, implementing and assessing social sector PPPs.

[4] 264 out of a total of 281 PPP projects (NITI Aayog 2015).

This paper presents a case study the largest PPP programme undertaken by the UK called the PFI. The programme was initiated in 1992 and carries out projects for the social sector in education, health, housing and defence in collaboration with the public sector. As a result of various assessment and evaluative reports discussed in detail subsequently in this paper, the PFI underwent critical reforms in 2012 and was reformulated as the Private Finance 2 (or PF2) programme, suggesting capacity and willingness to learn from past experience in realising desired outcomes.

This paper complements the broader literature on public-sector management and procurement in several ways. The first is to explain the rationale and structure of PFI projects and how they differ from conventional methods of public procurement. The existing literature, for instance Grout (1997) and Grimsey and Lewis (2007), have tended to focus largely on the mechanisms and the benefits and shortcomings of a PPP/PFI type of procurement, in comparison to conventional public sector procurement. A detailed review of the organisational and implementation of issues concerning PFI has received limited attention in academic literature. The second is to analyse the challenges faced by the PFI in both implementation and delivery of outcomes/outputs which resulted in its reformulation as the current PF2. The third is to draw some (tentative) implications for the structuring of PPPs in India, particularly for provisions in the social sector in light of the issues encountered by the PFI and PF2.

The analyses in this paper are based on data from various information sources including reports of the HM Treasury of the UK Government, the National Audit Office (NAO) of the UK, and the UK House of Commons, as well as the existing academic literature. The paper thus makes an instructive case study for understanding the dynamics of a PPP initiative for the social sector in a high-income country[5] and how it may be adapted and transferred to India, a middle-income[6] federal country with 29 separate States and seven Union Territories.

[5] The World Bank's estimate for UK's Gross National Income (GNI) per capita was US $ 42,690 in 2014. In July 2015, the World Bank has defined high-income economies are those with a GNI per capita of $12,736 or more for 2014.

[6] The World Bank's estimate for India's Gross National Income per capita was US $ 1,610 in 2014. In July 2015, the World Bank has defined middle-income economies as those with a GNI per capita of more than $1,045 but less than $12,736 for 2014.

The rest of the paper is structured as follows. The next section provides an overview of PFI in the UK, explains the typical implementation arrangement of a PFI project, and compares the PFI method of procurement with the conventional public-sector production and operation (called public procurement) process.[7] Section 3 presents details of UK's experience of producing and operating government amenities (termed in the UK as PFI mode of procurement) including the various challenges that PFI projects faced. The first part of section 4 explains the reforms which were undertaken that became a part of the current PF2 programme; and the second part discusses the challenges that PF2 continues to face, as well the recent steps taken by the UK Government to address them. The concluding section (section 5) of this paper discusses insights based on the case study of PFI in the UK for similar PPPs in the social sector in India.

2. THE PFI ARRANGEMENT IN THE UK: NATURE AND STRUCTURE

2.1 Overview

The Private Finance Initiative (PFI) was introduced in the United Kingdom in 1992. It attempted to use methods and practices of project finance for public sector infrastructure projects, specifically for the social sector. In 1996, a programme called 4Ps or the "Public Private Partnership Programme" was launched to extend PFI to local governments, this programme was later renamed "Local Partnerships" which has endured. By 1997, a total of 68 PFI projects across the UK Government, worth around GBP 4 billion had been signed (UK House of Commons 2011). In 1997 there was a change in government and the new government reviewed PFI and re-launched the initiative with an overhaul in bidding procedures. By end of 1999, PFI projects worth another GBP 5 billion had been signed (UK House of Commons 2011). In 2000, Partnerships UK was established as a promoter of private finance at the national level to complement 4Ps (Winch 2012).

The second half of the 2000s saw a sharp increase in the number of annual PFI deals reaching financial closure, touching a high of 62 PFI deals during 2007-08 (HM Treasury 2012c). Thereafter, there was a sharp decline as just about 22 PFI deals reached financial closure during 2008-09 (HM Treasury 2012c), likely as a result of the financial crisis.

[7] By "conventional" or "traditional" public procurement process, we refer to a typical public procurement process carried out by public sector organisations wherein works such as design and construction of infrastructure are contracted to a private sector organisation after a bidding process.

During this time, as the NAO (2010a) has observed, the collapse in market confidence in the providers of credit insurance (which was crucial for debt finance) led to a heavy dependence on the bank loans for modes of financing such as PFI. In 2010, the newly elected national government, on the grounds of "value for money", cancelled all 'Building Schools for the Future' PFI projects that had not already reached financial closure, and another 7 of the 18 municipal waste management PFI projects that had not yet reached financial closure (Winch 2012). By 2012, more than 700 PFI projects were in existence with a total capital value of nearly GBP 55 billion.[8]

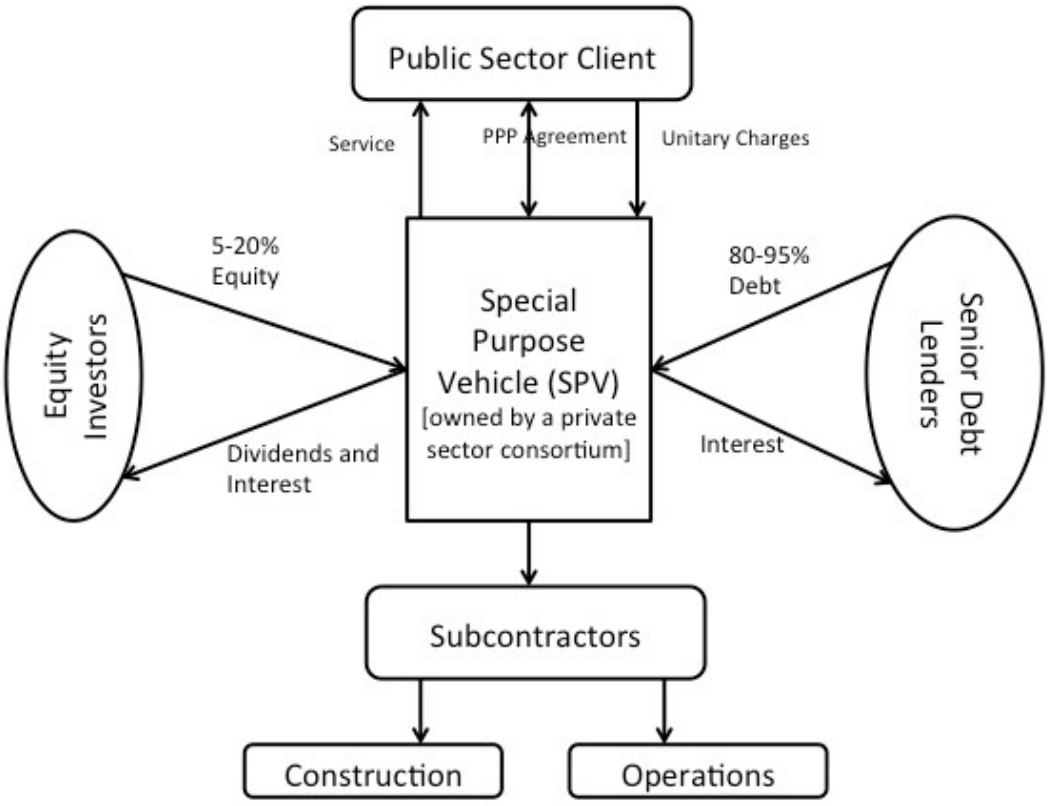
In a typical PFI project, the private sector designs, builds, finances and operates facilities based on specifications of outputs which have been determined by a concerned public sector department or authority (Corner 2006). At the time the PFI was introduced in 1992, the primary justification by the public sector for its use was that it would bring in more investment than what the government was able to provide through its conventional capital spending (UK House of Commons 2000). However, by the end of the 1990s, the additional reason for taking the PFI route was that PFI would provide better value for money than conventional public procurement (UK House of Commons 2000). According to the Treasury, the PFI was expected to offer better value for money "through a long-term focus on whole life costs; risk management expertise; and greater certainty for the public sector that services will be delivered to the specified standard" (HM Treasury 2006).

The structure of a typical PFI contract is as follows. The contract, or agreement, is of long term nature – around 25 to 30 years, and is signed between the public sector department (or client) and a Special Purpose Vehicle (SPV), which is owned by a private sector consortium, to design, build, finance and manage (sometimes, maintain) a capital project. The SPV then subcontracts various components of the PFI project including construction and operation activities. The SPV raises the finance for the project and this is a mix of debt and equity: with debt constituting the higher share of between 80 to 95 percent and the remaining as equity. The most typically adopted ratio of debt to equity, for PFI projects, was 9 to 1.

[8] While PFI was the dominant programme under which most PPPs in the UK were structured, especially those in social sectors including the education, health, housing and defence sectors; it must be highlighted that in parallel to the implementation of the PFI route, non-PFI routes have also been taken for PPP projects. For instance, the widely-known case of the Metronet PPP – a PPP for the renovation and upgradation of a part of the London Underground – which was the largest PPP in the UK in 2003 when it began. For details, see Sheikh, S., Asher, M. G. and V. Ramakrishnan. (2015) "A Case Study of Metronet PPP in the UK: Implications for India". Takshashila Case Study. August

The rationale for a debt heavy capital structure was that it was widely believed that a high debt to equity ratio would minimise the weighted average cost of capital (or WACC)[9] to the public sector (HM Treasury 2007 quoted in Vecchi et al. 2013). Once the construction is completed and the services commence, the public sector client makes regular payments called "unitary charges" to the consortium. Upon the expiration of the contract, assets created are owned by public sector. Figure 1 below presents the key features of a typical PFI contract.

Figure 1: Structure of a typical PFI contract



Source: Adapted from PwC, 2008 and NAO, 2012

[9] WACC, in financial terms, is the average cost that the firm (in this case the public sector department) is expected to pay to finance its assets and it considers both, the debt capital and the blended equity capital, their relative cost and weight i.e. the financial leverage – the degree to which an investor or business is utilising borrowed money) (Vecchi et al. 2013).

As indicated above, the majority of finance for PFI projects came from senior debt. "Senior debt" implies that during repayment in case of project failure, this form of debt would be paid off first. This was predominantly given by banks, which were third parties in relation to the PFI. Due to the repayment priority which senior debt carried and the perceived security associated with it, it had the lowest interest rate. In addition to senior debt by banks, PFI projects also used bonds as a financing option.

2.2 Project Risk Evaluation and Sharing

Until early 2000s, PFI loans were mostly financed on a "limited recourse basis" i.e. the recourse that lenders had to project assets and cash flows was restricted (Akintoye et al. 2001). As a result, from the point of view of lenders of PFI finance, the risk that threatened project completion and operation were more important to assess as compared to the credit risk associated with the borrower (Akintoye et al. 2001).

A preliminary study was carried out by Akintoye et al. (2000) to understand identification, management and evaluation of risks for PFI projects in the UK. This study found that 'experience' and 'risk prompts' (in the form of checklists, risk tables, risk matrix and risk registers) were the two main techniques used for risk identification. For the evaluation of risks three approaches had been predominantly used: qualitative (where the likelihood of occurrence and level of impact of risks is classified in a subjective manner as low, moderate and high), semi-quantitative (where the probability of a risk is still assessed subjectively but the impact is evaluated in monetary terms) and quantitative (where the complete risk assessment is done in numeric terms using expert opinion and sophisticated software) (Akintoye et al. 2000).

For allocation of risks, the principle which was to be followed was "risks should be allocated to the party best able to bear them" (Private Finance Panel 1996, quoted in Akintoye et al. 2001). In other words, as the HM Treasury (2006) stated that benefits would accrue from a PFI project "where the risks associated with a project are borne by the party that can best manage them". In a PFI project, following would be the risks typically transferred from the public sector to the private sector: risks associated with meeting required standards of delivery; cost overrun risk during construction; risks linked with timely completion of the facility; risks associated with underlying costs to the operator of service delivery, and the future costs associated with the asset; risk of industrial action or physical damage to the asset; and certain market risks associated with the scheme (HM Treasury 2006).

Upon the transfer of risks, the private sector would further allocate the risks among its different stakeholders: the design, construction, cost overrun and completion risk would be allocated to the construction contractor (who would have a subcontract with the private consortium); and the risk of timely and cost effective service provision would be allocated to the service provider (who would also have a subcontract with the private consortium) (HM Treasury 2006). The private consortium would transfer risks of damage and business interruption to an insurance company by buying insurance cover (which would hence contribute to the cost of the project) and the residual risks on the subcontractor' performance would remain with the private consortium, its lenders and investors (HM Treasury 2006).

2.3 Contract (Structure) and Implementation Characteristics

A PFI contract varies greatly from a conventional public procurement contract (HM Treasury 2012). The differences (summarised in Table 1) include the following. A conventional public sector procurement contract is usually a short term contract for design and construction; whereas, as already highlighted, PFI contracts are long term contracts which not only include elements of design and construction, but also the elements of finance and management, and sometimes maintenance. The requirements of the former type of contract are specified on an input basis, whereas those of the latter are specified on an output basis. Contracts that have output-based specifications are expected "to give the private sector contractor scope for innovation in designing and building assets and in the way they would be used to deliver the required service" (UK House of Commons 2008).

In a conventional public procurement, the public sector agency faces the risks associated with construction delays and cost overruns; whereas in a PFI contract, these risks are transferred (as discussed above) to the private sector and hence, the private sector is expected to have a higher incentive to deliver within the time and budget agreed upon in the contract. The borrowing is financed through issuance of government securities (or bonds) called "Gilts" in the UK which are managed by the government on a portfolio basis in the case of conventional procurement; whereas the borrowing is financed by the private sector on a project by project basis in the case of a PFI contract.

The public sector agency pays for the capital costs upfront through its capital budget in case of a conventional public procurement; however, in the case of a PFI contract, all costs to the public sector agency are in the form of the "unitary charges". These charges are fixed over the life of the contract and are not payable

until the construction is complete and the services have begun to the standard agreed upon in the contract – this type of payment implies that for the public sector client, the costs are smoothed over the duration of the project. Importantly, in case of a conventional public procurement, maintenance and services post construction are not linked with the performance of the contract; however, in case of PFI contracts, the "unitary charges" are linked to the performance and deductions are made from these payments in case the services are not provided as per the contractual requirements. In other words, the "unitary charges" are linked to service delivery rather than costs of the asset construction and this is supposed to "give an incentive to contractors to build reliability and maintainability into the asset design – to use 'whole-life' design techniques" (UK House of Commons 2008).

It is significant to note that before the PFI route can be adopted for a project, an appraisal is to be carried out to decide whether the PFI route should be opted for or not. This process is envisaged as a three-stage assessment: at the programme level, at the project level and at the procurement level (UK House of Commons 2008). The programme level assessment is supposed to ensure that "PFI is only considered for use in those programmes where it is appropriate and is likely to represent good value for money"; at the project level, an upfront appraisal of the procurement is to be done – previously it required a public sector comparator analysis but was replaced with an analysis which identifies the aspects that are key to value for money; at the procurement level of a project, an assessment is carried out "to ensure that the desired project can be delivered in view of, for example, the level of competitive interest and market capacity" (UK House of Commons 2008).

Table 1: Difference between Conventional Public procurement and PFI

CRITERIA	CONVENTIONAL PUBLIC PROCUREMENT	PFI
Duration	Short term contracts	Long term (20-30 year) contracts
Purpose	Design, construction	Design, construction, finance, management, maintenance
Contract specification	Input-based	Output-based
Risks with Public Sector	Construction risks and risks due to cost overruns	Construction risk transferred to the private sector incentivizing delivery within time and budget mentioned in contract
Financing of Borrowing	Through issuance of government securities, managed by government on a portfolio-basis	By the private sector on a project-by-project basis
Contract specification	Input-based	Output-based
Risks with Public Sector	Construction risks and risks due to cost overruns	Construction risk transferred to the private sector incentivising delivery within time and budget mentioned in contract
Financing of Borrowing	Through issuance of government securities, managed by government on a portfolio-basis	By the private sector on a project-by-project basis
Costs to the Public Sector	Paid upfront – from capital budget	Paid as “unitary charges” over life of contract after construction has been completed
Link with performance	Maintenance and services post construction are not linked to performance	“Unitary charges” are linked to performance

Source: Adapted from HM Treasury 2012

3. UK's EXPERIENCE WITH PFI PROJECTS UNTIL 2012

3.1 Data on PFI's projects

During the first half of the 2000s decade, a majority of public investment continued to be conventionally procured, with the PFI method contributing to only 10-15 per cent of the total public sector investment (HM Treasury 2006).

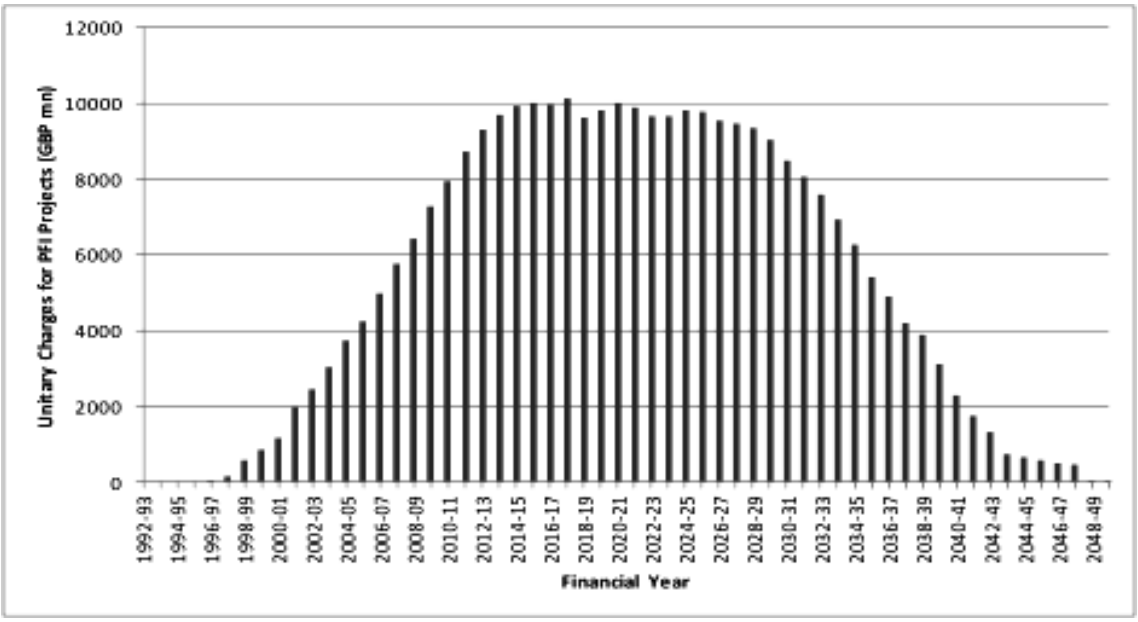
By 31 March 2012, according to publicly available data of the Treasury of the UK Government, 717 PFI projects were either under construction or in operation across the various departments of the UK Government, with a total capital cost of GBP 54.7 billion. A majority of the PFI projects, a little over 550 were running in England and the remaining in the rest of the UK and overall, 21 departments of the UK Government were using the PFI route for their projects. In terms of number of PFI projects, the largest number of PFI projects were active in the Department for Education, with 166 PFI projects being implemented (together having capital costs of GBP 7.7 billion). However, in terms of value, the Department of Health had PFI projects which had the largest share of capital costs at 11.6 billion across 118 PFI projects (second largest number of projects).

The data suggests that the overall repayments in nominal, non-discounted terms, for the PFI projects would amount to GBP 301.3 billion until the financial year 2049-50. The difference between capital costs and repayments is the ongoing running costs built into the contracts and time value of money. Each year the amount that would need to be repaid is in the form of the unitary charges for the PFI projects. According to the data, the repayments are expected to peak in the year 2017-18, when they would be at GBP 10.1 billion. The total repayments for PFI projects under Department of Health were estimated to be GBP 79.15 billion, a little over a quarter of the total repayments due for all PFI projects in the United Kingdom; whereas the total repayments for PFI projects under the Department for Education were estimated to be GBP 29.46 billion, a little less than one tenth of the total repayments due for all PFI projects.[10]

[10] Additionally, it is notable that though the Ministry of Defence had only 46 PFI projects operating under it, they formed the second largest value as they had a total capital cost of GBP 9.13 billion. The Scottish Government had the third highest number of PFI projects at 85; whereas though the Department for Communities and Local Government and Department for Transport had almost the same number of PFI projects at 64 and 62 respectively, however, the capital cost of the PFI projects of Department of Transport (at GBP 7.3 billion) was more than thrice that of those under the Department of Communities and Local Government (at 2.2 billion).

Unitary payments (or charges) are yearly payments made by the public sector department/ authority to the private sector consortium, once the facility (such as school or hospital) has been built. Figure 2 below shows the unitary charges, in nominal terms, non-discounted, for the PFI for each year from 1992-93 to 2049-50.

Figure 2: Unitary payments for PFI Projects (GBP million)



Source: PFI Current Projects List, March 2012, HM Treasury, UK Government

3.2 Performance of PFI projects

The British experience in the two decades of the PFI's existence highlighted several positive differences as compared to more conventional direct public procurement practices. This is not to suggest that the traditional procurement process necessarily led to worse outcomes, but that PFI projects appeared to do better in the delivery and quality of output/outcomes. This suggests that PFI projects did reap benefits from private sector's project management skills, as well as from its innovation and risk management expertise. As a result of implementing PFI projects, public sector departments had shifted their focus from inputs to outputs, especially in defining performance levels and financial penalties (NAO 2001), enabling the capacity and expertise building in initiating and managing such projects. For instance, there was some progress in the tendency of officials who had been involved in PFI projects to use their learning from these projects while carrying out conventional procurement processes (Bidgood 2012).

Many of these departments had developed internal governance arrangements, including processes of monitoring and problem resolution, to manage the relationship between themselves and the private sector partners (NAO 2001).

It was also observed that the assets created as part of PFI projects were maintained to higher standards than those by a more conventional procurement process during the contract term. In this context, Bidgood (2012) asserted that evidence suggested that cleanliness levels in PFI hospitals were higher than those in hospitals which had been procured conventionally (or simply, the non-PFI hospitals), which could imply that private control of soft services (such as cleaning) is a positive aspect of PFI, especially from the perspective of patient care. A report by KPMG (2010), based on a study of PFI and non-PFI hospitals, for the period of 2005 to 2008, had found that PFI hospitals had better patient environment ratings and higher cleanliness scores based on self-assessment by patients though the average cost of cleaning in both kinds of hospitals was similar. For the same time period, similar findings were reported by Ive et al. (2010) wherein they noted that PFI hospitals tend to have higher performance in aspects of patient environment, cleanliness and to some extent, catering, at seemingly no higher costs. However, they also cautioned that these findings must not be used to conclude that PFI hospitals are better merely because they are procured through the PFI route since mode of procurement was only one of the factors which could influence performance (Ive et al. 2010).

The UK experience also provided analytical data to identify the influences necessary for successful public-private collaboration. An analysis of 18 critical success factors by Hardcastle et al. (2005) found the following five groupings to be appropriate in prompting the successful formation of PPP/PFI projects: effective procurement of goods, services and assets, project implement-ability, government guarantee, favourable economic conditions and available financial market. Hardcastle et al. (2005) argued that these elements should be considered by public sector departments and their associated contracting authorities in informing and shaping their PPP/ PFI policy development and by private sector consortiums in managing their projects. Dixon et al. (2005) studied key PFI projects in the UK and found that the most important success criteria were value for money and risk transfer, while the high transaction costs and large scale nature of these projects often acted as a barrier for entry. A study by Patel and Robinson (2010) for PFI projects of NHS revealed that a clear organisation structure, effective decision making and control processes significantly contributed to success of these projects.

3.3 Accounting Treatment of PFI Projects in Public Finances

In the British experience, until 2012, the treatment of PFI projects in the UK Government's National Accounts was determined by the European System of Accounts 1995 (ESA95) framework. UK's Manual on Government Deficit and Debt (MGDD) aids application of this framework and it considers the relative balance of (i) construction risk, (ii) demand risk, and (iii) availability risk of a project to determine its balance sheet treatment. The decision is taken as follows: if public sector carried the construction risk then the asset was considered on the public sector's balance sheet; but if private sector carried the construction risk and either demand or availability risk then the asset is not considered to be on the public sector's balance for the National Accounts.

On the other hand, departmental accounts are based on the International Financial Reporting Standards (IFRS), which determine the treatment of projects by assessing which party has control of the asset. This implies that for a project, the decision is based on whether the asset created through the project will be under the control of the private sector or the public sector once the project is completed.

This differential treatment implies that the ESA95 and IFRS accounting standards were not aligned: until 2012, under ESA95, around 85 percent of the PFI projects had been considered off balance sheet; however, at the same time, under IFRS, around 90 percent of the PFI projects had been classified as being on balance sheet (HM Treasury 2012).[11] As a result, the National Accounts of the UK Government, which are used to calculate the Public Sector Net Debt (PSND), excluded the PFI-related debt. In other words, the UK Government's most reported debt statistic did no capture the liabilities, including the contingent fiscal liabilities[12], which were created by the PFI projects.

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[11] The Treasury data as of 31 March 2012, which has details on PFI projects also has information on classification of PFI projects as either on balance sheet or off balance sheet by the ESA 95 and the IFRS frameworks. Only for 215 of the total 717 PFI projects is this classification available according to ESA 95. The data reveals that 177 out of these 215 PFI projects i.e. 82.3 percent were classified as being off the balance sheet and the remaining 38 were considered as on the balance sheet by ESA 95. It is worth highlighting that of these 177 PFI projects which were considered off the balance sheet by ESA 95, an overwhelming majority of 160 were classified as being on the balance sheet by the IFRS. Furthermore, the classification for being "on" or "off" the balance sheet is available, according to IFRS, for 698 of the PFI projects. This data shows that only 34 of these 698 were classified as being off the balance sheet.

[12] Contingent fiscal liabilities are defined as those obligations that may or may not become due, depending on whether particular events occur (Polackova 1999). The probability of the occurrence of these events may be exogenous or endogenous to government policies (Polackova 1999). On the other hand, direct liabilities are those obligations where the outcome is predictable. As Polackova (1999) notes, conventional fiscal analysis tends to concentrate on direct liabilities which are explicit in nature i.e. those obligations which are created by law or by a contract and which the government(s) must settle.

It would also be relevant to consider the exact way in which the accounting of assets and liabilities of the public sector are impacted when a PFI deal was considered to be on or off the balance sheet. A paper which was prepared by Deloitte LLP in 2010 for the National Audit Office of the UK offers a detailed explanation in this regard which is presented in Box 1.

Box 1: Impact on accounting of assets and liabilities of the public sector based on a PFI project being classified as on or off the balance sheet

For PFI projects which are assessed to be on the balance sheet

When a PFI deal is assessed as being on balance sheet, the procuring authority is viewed as having purchased the newly-created assets in the project. In the accounts, this purchase is financed by the acquisition of a liability to pay over the life of the project. Effectively, the public sector is viewed as having borrowed from the private sector to finance the acquisition of the asset.

The annual unitary payment from government is disaggregated into its constituent parts for the purposes of the accounts, as follows: (i) an element that relates to services that are delivered auxiliary to the asset; and (ii) an element that relates only to the financing of the underlying asset. The services element of the unitary payment is expensed as those services are delivered. The asset-only element of the unitary payment is further split between an amount to cover the interest accruing on the liability and an amount that reduces the principal amount outstanding. As cash is paid by the public sector, the finance charge is met and the principal amount outstanding is reduced, in the same way as payments under a repayment mortgage. By the end of the transaction, the liability has been reduced to zero, and the public sector has no obligation outstanding. Commonly, ownership of the asset will transfer to the public sector procuring authority at that point for no additional consideration.

For PFI projects which are assessed to be off the balance sheet:

In an off balance sheet transaction, the public sector is deemed not to have acquired the assets that underlie the transaction and as such no long-term liability is recognised to pay for those assets. Rather, the view is that the private sector provides services in the form of access to the asset. In the accounts of the procuring authority the whole unitary payment is expensed to reflect the view that services are being provided to the public sector.

Source: NAO 2010b

3.4 Implementation Challenges faced by PFI

3.4.1 Inaccurate use of public sector comparators

At the time of deliberation of modes of project implementation, public sector departments and their associated contracting authorities, would often compare the PFI deal to a public sector comparator. The Treasury had emphasised that when a department of the UK Government was deciding on engaging the private sector in a procurement process then it should carry out "a rigorous assessment of value for money with no bias in favour of any particular procurement route" (HM Treasury 2003).

However, the Public Accounts Committee of the House of Commons of the UK identified that in many cases the public sector comparator had been used incorrectly. The Committee held that due to the desire to show that a PFI deal was "cheaper" as compared to the public sector comparator, there had been distortions in underlying calculations (UK House of Commons 2003). The preference for the PFI route and incentive for getting a PFI deal passed was perhaps two-fold: first, the public sector could get the project implemented now and pay for it later i.e. it did not have to find the money to cover the capital costs upfront and second, choosing the PFI route would allow the public sector departments to keep the debt off their balance sheets (explained later in this section) (UK House of Commons 2003). The inaccuracy in the use of public sector comparators led to the PFI route being chosen inappropriately in the cases examined by the Public Accounts Committee of the House of Commons of the UK.

NAO (2009) highlighted that systems were not in place to collect comparable data from similar projects using different procurement routes. It emphasised that "unless such systems were established, with robust evaluation of the overall whole-life costs of alternative forms of procurement", there was no way to know for the public sector departments that that private finance represented the best value for money option (NAO 2009).

3.4.2 PFI projects slow and expensive for private and public sectors

Once chosen, many PFI projects were found to be slow and expensive for both private and public sectors. A study by Ahadzi and Bowles (2001) highlighted the stages of a typical PFI project process that contributed the most to the risk of delays and consequently, increased costs to the private sector and public sector departments involved. Ahadzi and Bowles (2001) found that the post tender submission stage which involved the tender evaluation and negotiation stage was where the most delays occurred.

The reasons for the delays at this stage included the following: first, the public sector agency would have often not clearly and explicitly defined their needs in terms of output specifications; second, the private sector would have teams with personnel who were qualified and experienced to carry out negotiations; and third, the private sector appeared to have the edge over the public sector in the discipline of risk management leading to increased likelihood that the perception of risk would differ greatly (Ahadzi and Bowles 2001). A wide perception of higher risk in the public sector would, in turn, lead to long negotiation periods and escalated bidding costs, thus impacting the cost of project (Ahadzi and Bowles 2001).

3.4.3 Skills strengths and deficits in the public sector

While various factors could together lead to increased negotiation periods and bidding costs, one of the root causes was the deficit of skills in the public sector departments and their associated contracting authorities. In 2001, the National Audit Office (NAO) found that although most of the public sector departments engaged in PFI projects believed that their staff had sufficient skills and experience for contract management; NAO's own survey revealed that there was a significant variation in the extent of training on contract management skills which had been provided and some public sector departments had provided little or no training (NAO 2001). Additionally, NAO also found that there was much discontinuity in staff which was engaged in managing PFI projects leading to an adverse impact on the projects (NAO 2001). Hence, the public sector departments and their associated contracting authorities were seen to be greatly wanting in terms of professional skills relating to project management, as well as greater knowledge sharing within the public sector (Ahadzi and Bowles 2001).

It is necessary to add that a significant consequence of poor project management and contract management skills in the public sector were the rising costs associated with employing advisors. The Public Accounts Committee of the House of Commons UK had pointed out in 2003 that with more experience in doing PFI deals, the cost of employing advisors should have fallen but that had not been the case (UK House of Commons 2003). Indeed, an industry of advisors was created which had a vested interest in the expansion of PFI (Kay 2011).

To improve the understanding of the main risks encountered in a PFI project, the Treasury of the UK Government published a document titled "Standardisation of PFI Contracts (SoPC)", the first version of it was published in July 1999, followed by the second version in September 2002, the third in April 2004 and the fourth in March 2007.

In addition to promoting a common understanding of the main risks encountered in a PFI project, this document was to enable consistency of approach and pricing across similar projects and to reduce the time and costs of negotiation by enabling all parties concerned to agree on a range of areas that could follow a standard approach without extended negotiations (HM Treasury 2007). The fourth version of the document was extensive: 37 chapters across nearly 350 pages, it contained chapters on topics such as service commencement, supervening events, warranties, price and payment mechanism and the monitoring for the same, availability requirements, performance requirements, changes in law, changes in service, price variations, insurance, information and confidentiality, early termination of contract, refinancing and types of finances including bond finance and corporate finance.

3.4.4 Limitations of the public sector during negotiations

There were shortcomings of the public sector departments and their associated contracting authorities at the time that PFI projects were negotiated. The Public Accounts Committee of the House of Commons UK identified PFI deals for which competition had been minimal (in some cases only a single bid had been received), with inadequate benchmarking of prices having taken place, and concerned departments and authorities had not carried out a thorough assessment of financial and technical competence of the potential bidders (UK House of Commons 2003). As noted, negotiations with shortlisted bidders could go on for long periods of time which would not only result in higher administrative costs for the public sector agency but also in increased prices from the contractors (UK House of Commons 2003).

3.4.5 Complex and rigid PFI contracts

While in operation, it was found that many PFI contracts were very rigid and the public sector and private sector players would be locked-in in complex contracts. As Kay (2011) asserts, many PFI contracts had been formulated after much financial engineering which was difficult to comprehend by those in the public sector. Most PFI contracts were characterised as being "bundled" – which meant that they involved various components of a project: finance, capital procurement, as well as facilities management for a period of two or three decades, with little scope for renegotiation.

In this context, the Public Accounts Committee of the House of Commons of UK (2003) observed that there was a need for the PFI contracts to have flexibility to accommodate for alterations in services covered by the contract, for introduction of new services and for changes in the performance measurement arrangement.

However, the public sector departments and associated contracting authorities were caught in a tension because they did not want the private sector partners to make undesirable changes that would be detrimental to the public sector (UK House of Commons 2003). Further, it was observed that due to the inherent rigidity in the PFI contracts which were operational at the time, PFI was less suitable for services which needed to change "to reflect changes in public service delivery, demographics and technology" (UK House of Commons 2013).

3.4.6 Misallocation of risks, higher risk premiums charged to the public sector

Several concerns were also raised about the ways in which risks were allocated between the private and public sector. Akintoye et al. (2000) observed that an overwhelming percentage of the risk was most often transferred to the private sector under several PFI projects.

As Corner (2006) emphasises, ideally PFI projects should transfer only those risks to the private sector where the contracting body (or private consortium) can influence the outcome. Since the private sector is expected to have influence over quality of design, construction and maintenance, hence, risks relating to these activities ought to be transferred to the private sector. This implies that risks relating to demand (or actual use) should be retained by the public sector and not be transferred to the private sector since the private sector has no influence on it (UK House of Lords 2010). However, in PFI contracts relating to roads, the payments were based on the actual traffic volumes which were difficult to forecast; consequently, a premium was charged to the contracting public authority (Corner 2006). In such a case, as Corner (2006) explains, "risk transfer was confused with risk creation", leading to higher costs to the public sector.

Further, Corner (2006) highlights that in PFI projects for essential public services, if the project met failure, the public sector contracting authority would have to take back responsibility for delivery of the concerned services – this was also officially mentioned by the Treasury in 2003 (HM Treasury 2003). In such cases, the risk of a complete failure of the project should not be transferred to the private sector. Moreover, if such a risk is transferred to the private sector and the private sector also gets the impression that the public sector will take back the risk if the project actually fails, then commercial discipline will be impacted adversely (Corner 2006). Until the mid 2000s there had been cases where this risk had been inappropriately transferred to the private sector and consequently, higher premiums had been charged to the public sector.

Besides demand risk and risk associated with complete project failure in case of an essential, it was also observed that energy risks and insurance-related risks had been inappropriately transferred to the private sector (UK House of Commons 2011).

Within the private sector, senior debt, which provided a majority of the finance, carried low risk because the government guaranteed its repayment (Pollock and Price 2013). Instead, it was the equity investors, who though provided a much smaller share of the finance, faced much greater risk i.e. the risk of losing their equity first in case of project failure. A report by the NAO, published in 2012 focused on the equity investors for PFI projects and explained the dynamics of the risk and reward to these investors. It noted that in return for the risk that the equity investors faced, they would receive all the remaining cash flows once the project had paid off its third party debt and in case a project did not fail i.e. the risks did not materialise, then the value of these cash flows would be significant in comparison to the original amount of equity invested by them (NAO 2012).

The NAO (2012) also emphasised that though the equity investors faced risks particularly in the early stages of a PFI (such as not knowing whether their bid would win, uncertainty on the performance of contractors, risk of lifecycle costs being much higher than estimated), these were limited for various reasons. These reasons included: investors passed on most cost risks to their contractors by engaging them only in fixed price contracts, the procurer being a government agency or department was a safe credit risk as a result of which the risk for the investors was reduced and they could also obtain bank finance as a lower cost, and as more experience had been gained in the PFI market, especially those involving schools and hospitals, project formats could be repeated reducing fixed costs, and the risks were better understood, and therefore, better managed (NAO 2012).

The NAO held that the equity investors would seek to maximise their returns which may not be consistent with optimising the value for money for the taxpayers; and that their findings suggested that the public sector was paying more than necessary for equity investment i.e. there were inefficiencies in the pricing of equity (NAO 2012). The NAO (2012) assessed that there were three primary causes of potential inefficiencies in the pricing of equity. First, the process of procurement in itself was inefficient due to time delays, which in turn led to high costs of bidding for privately financed projects and hence, influenced investor returns.

Second, NAO had found that investors would price equity by reference to a pre-defined internal "hurdle rate" rather than by considering the specific risks of the project unless there were significantly higher risks; and in general, PFI projects benefited from secure payments that the public sector departments (or broadly the Government) as the customer of the project provided. Third, the minimum investor returns which were priced into PFI contracts had been strongly influenced by banks through their requirements (known as 'cover ratios') for a defined level of cash flow; though this provision increased the protection of their loans, it was not always needed.

Overall, since inappropriate risks (such as demand risks or the risk of complete project failure in case of an essential public service) had been transferred to the private sector as part of the PFI projects, they resulted in higher risk premiums being charged to the public sector and consequently, while taxpayers were impacted adversely, equity investors made windfall gains.

3.4.7 Lack of transparency and measures to improve it

There was insufficient transparency on the future liabilities created by the PFI projects. As already mentioned, until 2012, a majority of the PFI projects had been considered off balance sheet of the government. This implied that there was a high probability for a PFI project to be classified as "off balance sheet", which, as mentioned earlier in this section, motivated public sector departments to take this route of finance.

The National Accounts of the UK Government followed (and continue to follow) the ESA 95 framework, hence a majority of the commitments linked with PFI projects were not being captured by them. In the interest of transparency and completeness, in 2011 the UK Government decided to publish, for the first time, the Whole of Government Accounts which would include PFI commitments. Subsequently, in July 2011, the UK Government published for the first time an unaudited version of Whole of Government Accounts (WGA) for the financial year 2009-10, which were later audited and released in November 2011. One of the key objectives of the WGA was to improve the completeness of UK Government's accounts by addressing the "inconsistencies around PFI reporting to improve the disclosure of existing commitments". It is however, most crucial to note that despite the WGA, the UK Government's debt statistics would continue to be based on the National Accounts. Box 2 explains some details on WGA and how they account for PFI commitments.

As of 31 March 2010, the net book value of PFI assets was GBP 30.9 billion and the associated liability for capital repayments was GBP 28.1 billion. The interest payable on the existing capital commitments at the time was GBP 33.4 billion for the year ended 31 March 2010. The present value of future obligations was GBP 131.5 billion, including service charges and some life cycle replacement costs. Future obligations in relation to those PFI contracts recognised on the Statement of Financial Position for 2009-10, reported as part of the WGA, are shown in table 1 below.

Table 2: Future obligations under PFI contracts in 2009-10

Box 2: PFI commitments captured in the Whole of Government Accounts (WGA)

The WGA are full accruals based accounts covering the whole public sector and audited by the National Audit Office of the UK. WGA consolidate the accounts of more than thousand bodies (1,500 bodies for 2009-10 but has steadily risen over the five financial years to 5,500 bodies for 2013-14) from central government, devolved administrations, health service, local government and public corporations. They were published for the first time in 2011 for the previous financial year 2009-10 and since then have been released for every financial year with the latest having been published in March 2015 for the financial year 2013-14. In the context of PPPs, it is crucial to note that WGA treat PPP commitments according to the IFRS framework and includes a table summarising the long term contractual commitments held by all bodies which are, or are similar to, PFI projects.

To account for PFI commitments, the below guidance (based on IFRS) is followed:

- Where the balance of risks and rewards of ownership of the PFI property is borne by the PFI operator, the PFI payments are recorded as an operating cost.
- Where the balance of risks and rewards is borne by the Government, PFI transactions are recognised as an asset, with related liabilities. The asset is accounted for in a manner consistent with other assets of that type. Interest on the liability and expenditure on services provided under PFI transactions are recognised in the Statement of Revenue and Expenditure as they accrue.
- Unitary Charges which are paid annually for the PFI projects are apportioned between three elements: an element to pay for services; an element to pay interest on the liability and an element to repay the initial liability.
- Where, at the end of the PFI transaction, all or part of the property reverts to a government entity for a specified value, the difference between the expected fair value of the residual asset on reversion at the start of the contract and any agreed payment on reversion is built up over the life of the contract, and included in the Statement of Financial Position as a non-current asset. This is to ensure proper allocation of payments between the cost of services under the contract and acquisition of the residual interest. Capitalisation of residual interest is included within Assets under Construction.

Source: Whole of Government Accounts for 2009-10, 2010-11, 2013-14, UK

Table 2: Future obligations under PFI contracts in 2009-10

	GBP billion
Obligations for future periods arising no later than 1 year	3.1
Obligations for future periods arising later than 1 year and not later than 5 years	12.7
Obligations for future periods arising in later than 5 years	51.7
Gross present value of future obligations	67.5
Less finance charges allocated to future periods	(33.4)
Net present value of future obligations	34.1
Plus: service charges due in future periods	97.4
Total future obligations	131.5
Total number of PFI contracts	609

Source: Whole of Government Accounts for 2009-10, UK

It would be pertinent to mention here that though the concerned government department(s) or authority(s) did not give formal guarantees in case of failure of PFI projects; the project implementation experience has shown that when faced with insolvency and/ or financial failure, the government has acted as the guarantor for PFI projects (Musson 2009, Matthews and Maharani 2009). In this context, the Treasury in 2003 explained that, "[In] extreme circumstances of failure [...] the Government will be prepared to terminate such contracts in accordance with its legal rights, even if at a loss to financial participants in the scheme. Where this happens, it will also act within its legal right to ensure that public services will be maintained." Highlighting this, Newmark and Hammond (2006) asserted that since many PFI projects (such as those in the health and education sector) provided essential public services, they could not be allowed to fail by the government i.e., following from what the Treasury explained, the government had implicitly committed itself as the ultimate guarantor. If this was the case, then transparency regarding contingent fiscal liabilities would gain even more importance.

4. REFORMING THE PFI AND PF2

4.1 Procedural and Operative Reforms Introduced

In November 2011, the UK Government announced its intention to reform PFI. Previously that year, the NAO (2011) had, after reviewing multiple PFI projects in the UK had argued that the following lessons needed to be drawn from the PFI experience.

First, there was a need for accurate data to make informed choices such as data with estimates of time and cost of the PFI route as opposed to the conventional public procurement route; and greater specification of the essential cost and operational data which would be required by the procuring entities. Second, there was a need to build the capacity in the public sector so that the staff would be equipped with skills to negotiate and manage contracts, as well as a need for knowledge transfer when key individuals in public sector departments and associated contracting authorities moved elsewhere while a PFI contract was in operation. Third, there was a need to establish effective accountability arrangements and appropriately empower public officials to ensure that PFI projects only went ahead where they would deliver value for money. In this context, the NAO (2011) had emphasised that PFI contracts create long-term commitments, so there is a need for robust, impartial scrutiny of the business case decisions on the form of procurement and project scope. Fourth, there is a need for a degree of flexibility to be built into PFI contracts because the rigidity only results in higher costs and lowers inefficiencies in the long run. Fifth, the NAO (2011) also urged that given the fact that the various departments of the UK Government now had nearly two decades of PFI experience, there was a need for the UK Government, as a whole, to exploit its market position so it could obtain economies of scale.

A stakeholder consultation process was started in December 2011 to invite suggestions from and concluded in February 2012. After much policy deliberation and inquiry spanning nearly a year, the policy of PFI in its then form was discontinued and in England, it was replaced by the Private Finance 2 (or PF2) initiative. In December 2012, various reforms were introduced to the Private Finance Initiative (PFI) policy in a new one called "PF2". This policy was only implemented in England since capital spending on public infrastructure had become a devolved matter (HM Treasury, 2012). The remaining part of this section explains the main reforms which were introduced as part of the PF2 programme.

As already mentioned, typical PFI projects were "highly geared" or "highly leveraged" i.e. had a high debt to equity ratio (typically 9 to 1). As part of the reforms, an attempt was made to restructure the equity component of various PFI projects. This reform was three-fold: PFI projects were encouraged to adopt lower debt to equity ratios wherein a 8:2 or 7.5:2.5 ratio was preferable; government was to act as a minority equity investor in each project by providing share capital and loans equal to 25 to 49 percent of the total equity quantum; and funding competitions were introduced for a portion of the equity to attract long-term investors.

In addition to reforms to change the structure of equity in PFI projects, efforts were also suggested to restructure debt finance to enable it to access long term debt finance and capital markets. The restructuring required the private sector consortia to develop bids in which institutional investors (such as pension funds and insurance companies, and not commercial banks) would provide the majority of the debt finance. As Hellowell (2013) notes, this change in capital structure of finances of PFI projects was done to improve the credit rating of project debt, which in turn would create an asset class that would be attractive to institutional investors.

To accelerate delivery of PFI projects various steps were taken. Towards improving public sector procurement capability, the mandate of Infrastructure UK (a unit within the HM Treasury that works on UK's long term infrastructure priorities and secures private sector investment) was strengthened and its support extended to centralised procurement units in each of UK Government's departments. Details regarding the key government entities which form the institutional framework for PPPs in general, and PFIs in particular, in the UK are presented in Box 3.

Further, a time limit of 18 months was established for the tendering phase of PF2 projects and efforts were taken to standardise the approach to PF2 by developing a comprehensive set of standard documentation. Towards this, a draft document titled, "Standardisation of PF2 Contracts" was released by the Treasury of the UK Government. Emphasis was also laid on improving the scrutiny of projects while they were in their preparatory stage.

For flexible service provision, public sector procuring authorities were given discretion on the inclusion of minor maintenance activities at the project outset, as well as the flexibility to add or remove certain elective services once a contract became operational. An open book approach and a gain share mechanism for the lifecycle fund was introduced to facilitate the sharing of any surplus lifecycle funding. Service provision was also reviewed periodically to monitor it.

Box 3: Key Government Entities forming the Institutional Framework for PFI projects in the UK

The government entities forming the institutional framework for PFIs in the UK can be broadly grouped under five heads:

1. Infrastructure UK (or IUK) – This is the central government PPP unit in England and was established in 2011. It was set up as a separate unit within the Treasury (the equivalent of the Ministry of Finance) and is wholly owned by the Treasury. IUK provides advice to the Commercial Secretary to the Treasury, who leads on infrastructure issues in the UK. The IUK is housed under the "Enterprise & Growth Unit" of the Treasury, alongside the Spending Teams (who are responsible for policy in areas such as transport, energy and environment, and a unit called "Infrastructure Strategy"). IUK comprises of four units:
   a) PPP Policy – which is supposed to oversee strategic direction of PPP policy and provide advice to Ministers and on specific PFI and PPP issues and leads work on PFI/ PPP reforms.
   b) Assurance – which is supposed to ensure that infrastructure projects have appropriate level of commercial assurance i.e. that the projects are well-structured commercially.
   c) Infrastructure Delivery – which is supposed to support the planning and prioritisation to enable effective delivery of infrastructure across sectors in the UK, whether involving PPPs or not.
   d) Infrastructure Finance – was originally established during the financial crisis to provide finance to those projects which struggled to reach a financial close. However, it no longer has the capability to lend to projects but looks into sector-specific issues (not only those related to PPP.

2. Private Finance Units at Line Ministries – In larger departments there is often a private finance unit (PFU), which provides advice to the department on PPP/PFI (including on initiation, procurement, delivery and operations) often alongside other commercial, non-PFI-specific issues.

3. Efficiency Reform Group (ERG) and the Major Projects Authority (MPA) at the Cabinet Office - The Efficiency and Reform Group (ERG) – was formed in 2010 and performs a number of roles of relevance to PFI. In particular, it has the responsibility for procurement policy overall and leads on issues such as EU procurement directives and broad guidance on effective procurement policy. The ERG also contains the Major Projects Authority (MPA), which is a collaboration between the Cabinet Office, the Treasury and departments. It looks after the government's major projects portfolio in collaboration with departments, with regular reporting to Ministers, and has the aim of significantly improving the delivery success rate of major projects across central government.

4. Local Partnerships – This is a joint venture between the Treasury and the Local Government Association and was established in 2009. It provides a single source of commercial expertise and know-how for all local public bodies in England, such as local authorities, health and social care agencies, police and fire authorities. Previously, this entity was known as the 4Ps (the Public Private Partnerships Programme) and was wholly-owned by the Local Government Association.

5. Private Finance Units at Local Procuring Authorities – In areas where there is significant PPP activity, such as in major cities, local authorities have established local PFUs to coordinate expertise and transact PPP projects (including steps such as initiation, procurement, delivery and operations).

Apart from the aforementioned key entities, there is also the private finance division at the National Audit Office (NAO) which is supposed to carry out activities for assessing activities such as PFIs, PPPs, privatisations and accusations. Additionally, the Office of National Statistics (ONS) takes into account the data on PFIs which is considered "on the balance sheet" for the purpose of calculating national debt-related statistics.

Source: European PPP Expertise Centre 2012.

For greater transparency, one of the reforms had already been introduced in 2011 (Box 2) wherein PFI related commitments started being captured as part of the Whole of Government Accounts (WGA). WGA remained distinct from the National Accounts of the UK Government, which continued to be the accounts used to calculate UK Government's national debt. Given that the government would hold equity in all PFI projects, the reforms required the UK Government to publish project and financial (such as equity return) information for all these projects as part of its annual reports.

To improve risk allocation, the reforms required that the public sector manage a greater amount of risk, especially the risks associated with an unforeseeable general change in law, cost of utilities, site contamination and insurance.

4.2 Remaining challenges

Reforms introduced as part of the PF2 attempted to address several challenges that the earlier PFI programme had faced.

The data on PFI projects for 2014 shows that the number of current PFI projects increased from 717 on 31 March 2012 to 728 on 31 March 2014, with the total capital value of these projects rising from GBP 54.7 billion to GBP 56.6 billion. However, this should not be taken to imply there were 11 new PFI projects. An examination of the detailed data shows 18 PFI projects having been listed for 2012 which were not listed in 2014, and 29 of them which were listed in 2014 but not in 2012. Further, the data for years 2012, 2013 and 2014 reveals that while at least 9 PFI projects had expired during that time period, a few of them had been reclassified, another few had been cancelled and one had been terminated. It is crucial to note that the number of "project in procurement" i.e. those PFI deals which had not reached financial closure dramatically decreased from 2012 to 2014. While on 31 March 2012, there were 39 projects in procurement (with a total value of GBP 5.4 billion), this number decreased to 21 on 31 March 2013 (with a total value of GBP 2.8 billion) and to only 11 projects in procurement on 31 March 2014 (with a total value of GBP 0.816 billion).

In its present and evolving form, PF2 also faces certain difficulties. The UK Government has already taken cognisance of some of these and made efforts to address them.

4.2.1 Participation by institutional investors and pension funds

With a requirement for PFI projects to have a debt to equity share of 8:2 or preferably, 7.5:2.5, and with the government as an equity holder, efforts had been made to alter the financial model from one which had been based on bank lending to one which aimed to get finances from a range of financial institutions (Vecchi et al. 2013). One concern arose on whether financial institutions such as pension funds and insurance companies would show interest. Vecchi et al. (2013) suggested that there was limited appetite from these institutions because of information asymmetry, scarce data on project performance and lack of internal expertise on assessing and monitoring credit risk.

However, the UK Government has taken some steps to increase participation by long term funds. One of the initiatives relates to what is called the "Pensions Infrastructure Platform" or PiP. The initiative was announced in 2011 with the objective of making infrastructure investment more accessible to UK pension schemes (HM Treasury 2014). Subsequently, a Memorandum of Understanding (MoU) was signed between the Treasury and the National Association of Pension Funds (NAPF) and the Pension Protection Fund (PPF) to play an advisory role to establish the PiP. In February 2014, the first "PPP Equity PiP LP" fund reached its financial closure and became the first PiP fund which would invest in UK's PPP/ PFI project equity.

As of December 2014, there was a cap of GBP 600 million on this fund and it had already received commitments of GBP 348 million, of which two-thirds had been already invested in 41 separate projects (HM Treasury 2014). At the time, PiP's target was to secure GBP 2 billion for investment into UK infrastructure by UK pension schemes. By July 2015, the PiP reported that it had already helped secure over GBP 1 billion of commitments from pension schemes to invest into UK infrastructure by having worked with established asset managers to deliver appropriately and attractively structured and priced specialist infrastructure investment funds for small and large pension funds (PiP website). It also revealed that the next step would be to develop PiP as a direct infrastructure investment managed 'by UK pension schemes' and 'for UK pension schemes' and get the necessary authorisation for the same (PiP website).

4.2.2 Pricing of Equity and Cost of capital

Further, with a greater share of equity, the questions relating to pricing of equity and the consequent weighted average cost of capital (WACC) became more relevant.

Vecchi et al. (2013) proposed a framework grounded in corporate finance literature for estimating the WACC of private sector equity investors, using it then as a benchmark to evaluate the expected rates of return on investments in SPV equity in a PFI project. They measured and evaluated returns on 77 PFI projects in the health sector in England and Scotland between 1997 and 2010. They found that the average difference between investor WACC and the expected rate of return in case of an SPV was 9.5 percent, implying that there was a high degree of rent extraction by the investors from the private sector (Vecchi et al. 2013). This difference meant that the public sector needed to revise the methods it used for procurement of PFI contracts and for appraisal of bids from the private sector.

Hellowell (2013, 2014) studied the WACC for PFI projects and found that in 2013, with a 9:1 debt to equity structure, the WACC for PFI project was estimated to be 8.25 percent (excluding the bank fee) whereas at the same time, the yield on a 20 year UK Government Gilt (a type of government security or bond) was 2.65 percent. This difference implied that private finance would increase the cost of capital for projects by 5.6 percentage points. Further, if the equity share increased to 25 percent, then the WACC would rise to 9.4 percent – which meant that in PF2 project arrangements though there would be higher cost of capital to the public sector, lesser transfer of risk to the private consortium would take place (Hellowell 2013, 2014). This would imply that PF2 projects would be funded at a higher cost of capital, hence adversely impacting the value for money to the public at large.

In this context, it might be necessary to highlight what a survey of perceptions of managers of PPP/ PFI contractors by Eadie et al. (2013) revealed. The survey, which was conducted across PFIs in the transport and healthcare sector, found that a majority of the managers did not consider that PPPs or PFIs provided the "best value" but they thought it provided "more value" than the other preferred conventional methods of public procurement (Eadie et al. 2013).

Hellowell (2014) considered the specific case of healthcare and the NHS Trusts which have been extensively using the PFI model for constructing and operationalising new hospital facilities. He found that though annual payments to the private sector consortiums under PFI only contributed to 2 percent of the NHS budget, some NHS Trusts were spending a significant proportion of their annual income towards unitary charges for PFI hospitals which were not adequately offset by additional payments from the central government (Hellowell 2014).

Hence, these NHS Trusts faced financial difficulties with less to spend on staff and medical equipment which could negatively impact patient care. Increasingly, he found that though NHS officials involved in PFI contracts knew that they were unaffordable still opted for them because they believed that PFI was the "only game in town" (Hellowell 2014).

4.2.3 Accounting vs. Statistical vs. Budgetary treatment

Even after the reforms introduced as part of the PF2 initiative in 2012, much of the PFI related debt remains invisible to the national debt statistics (UK House of Commons 2013). This is because the national debt statistics (such as the Public Sector Net Debt, or PSND) are based on UK Government's National Accounts which continue to follow the ESA 95 accounting framework, implying that most PFI/ PF2 related commitments remain off the balance sheet. Hence, there still remains incentive for UK Government's departments which are engaged in PFI projects to use the PFI route instead of the conventional public procurement route which would be on the balance sheet. Furthermore, the capital budgets of UK Government departments continue to follow the definitions in the ESA 95 framework (UK House of Commons 2013). This implies that the capital expenditure delivered under PF2 projects is often additional to the capital budgets of spending departments (Hellowell 2013, 2014).

Considering the two factors together, Hellowell (2013) observed that the move from PFI to PF2 did not do "anything substantially different in terms of the accounting treatment", and therefore, there still remained "the budgetary incentive and the fiscal incentive to pursue private financing almost regardless of the sort of value for money merits of PFI" (Hellowell quoted in UK House of Commons 2013).

In 2014, the Office of Budget Responsibility of the UK Government, while using the data from WGA for the financial year 2012-13, emphasised that the total capital liabilities arising from PFI contracts for 2012-13 were estimated at nearly GBP 37 billion, up by a billion GBP from the previous financial year, but only GBP 5 billion was included as PFI-related public sector liabilities by the National Accounts and hence, included in the PSND (OBR 2014). It further stated that, "if all investment undertaken through PFI had been undertaken through conventional debt finance, PSND would be around 2 percent of GDP higher than [had been] currently measured" (OBR 2014). One of the steps that the PF2 reforms took was to introduce a "control total" and this was envisaged to limit the payments under the PFI/ PF2 projects to GBP 70 billion for five years starting from 2015-16, thus allowing for GBP 1 billion worth new PFI/ PF2 projects each year (HM Treasury 2013a).

However, as the Treasury Select Committee of the UK House of Commons noted, the control total did not remove the budgetary incentive for departments of the UK Government to choose PF2 over conventional public procurement until the GBP 70 billion limit was reach – on the other hand, it actually created a greater incentive for these departments to bring forward their investment decisions to ensure that they would be included within the limit (UK House of Commons 2013).

Here, it is worth noting that the Whole of Government Accounts (WGA), which follow the IFRS framework, are prepared and they do capture the PFI related debt; and the internal accounts of the UK Government departments, which also follow the IFRS accounting framework, do the same. Both of these classify PFI projects as "public" or "private" based on the control of the asset created, hence capturing the PFI related debt. However, the importance these are given when annual budgetary decisions are taken is unclear. In fact, the WGA are available with a lag, for instance, the WGA for financial year 2013-14 were only published in March 2015 – which was the first time that the WGA had been published within a year of the end of the financial year.

4.2.4 Savings from existing PFI contracts

In July 2011, the Treasury asked all departments to examine their operational PFI contracts and subsequently, it also released a guidance which the departments could use to identify savings. About two years later in June 2013, departments of the UK Government had reported that there were "signed" savings i.e. savings for which there was formal agreement and which departments felt most certain about receiving in the remaining years of the contracts, of GBP 1.6 billion, which would come from 118 of the operational PFI contracts. The NAO carried out an audit wherein it evaluated GBP 1.372 billion of these "signed savings" and found sufficient evidence to support savings of GBP 1.232 billion, while finding only partial evidence to support GBP 48 million and insufficient evidence for GBP 92 million (NAO 2013). It also estimated that there were another GBP 1.3 billion of "pipeline" savings i.e. savings which were less certain as compared to "signed" savings, but which could be hoped to turn into "signed" savings in due course (NAO 2013).

NAO also emphasised that out of the 684 operational PFI contracts at the time, 566 contracts had not reported any savings to the Treasury (NAO 2013). Further, the NAO (2013) was of the opinion that for two social sector departments – the Department of Health and Department for Education – which together had more than half of the operational PFI contracts, there was much more scope for savings.

However, it did acknowledge that these departments would find it challenging to engage local bodies (including NHS Trusts, local authorities and school authorities) in their pursue to increase savings (NAO 2013).

Box 4a: Non Profit Distribution Model (NPD)

The NPD model of a PPP is similar to that of PFI. Like in the case of a PFI, for an NPD project, a Special Purpose Vehicle (SPV) is established and it is entrusted with carrying out various phases of an infrastructure project including design, construction, operations and maintenance. However, the way in which an NPD project is different is that it is only financed by debt and has no equity component in it.

As a result, the returns of an NPD project are "capped" to a large extent when the contract is signed and any surpluses that remain at the end of a contract are returned to the public sector. In other words, the surpluses, which in case of a PFI contract would have gone to the private sector equity holders as dividends, instead come to the public sector – hence, making it a "non profit" project. Further, typically, the governance structure utilised in the NPD structure involves public sector representation on the Board of the SPV.

The Scottish Government has been using the NPD model since the mid 2000s in social sectors such as education and health, and more recently, in the water and sewerage sector. Through the NDP model, the Scottish Government wanted to address the issues of high transaction costs, limited competition and time limited procurement periods since these three had challenged the PFI model.

The UK Government, since the early 1990s developed the RAB to provide comfort to investors in privatised network utilities that their investments would not be treated unfairly. RAB was initially developed for the water industry, but its use spread to UK energy (primarily natural gas networks), to railway networks and to the fixed line telecom network.

Source: Stern 2013, 2014

In this context, the NAO (2013) specifically recommended that the public sector departments and their associated contracting authorities adopt a "spend to save" approach, while ensuring that their staff is equipped with skills and capacity to identify and negotiate savings in PFI projects.

It is worth highlighting that in early 2012, the UK Government launched a central programme to reassess operational PPP (including PFI) contracts which aimed to find savings worth GBP 1.5 billion across these contracts. Three years later, in March 2015, it reported that public sector departments, and their associated contracting authorities, at local and central government, together having about 700 contracts, had reported savings of GBP 2.1 billion as of December 2014 (HM Treasury 2015b).

Box 4b: Regulatory Asset Base (RAB) Models

The key concept on which the Regulatory Asset Base (RAB) models, also referred to as RCV (regulatory capital value) or RAV (regulatory asset value) models, are based is called Financial Capital Maintenance (FCM). The models aim to address the issue of whether the financial capability of the company is maintained intact, which is distinct from whether the physical capacity of the company is maintained intact (referred to as Operating Capital Maintenance). If revenue receipts are insufficient to cover depreciation and earn a normal rate of return on the replacement cost of assets, then the FCM will decrease unless the government provides a subsidy or some other financial input. In such a situation, the RAB models are a mechanism for FCM protection of private investors. The starting point to calculate the value of an RAB is:

General Current Cost of Assets + Provision for Depreciation = Net Book Value

In most non-UK cases, the Net Book Value would be equal to the value of the RAB.

RAB models are expected to solve the time inconsistency problem since there is an agreed valuation of all assets that are "bought" by the RAB and these assets are remunerated based on a pre-set rate of return, as well as the investors know they will not be expropriated and have an independent regulator to protect them.

In case of the UK, the RAB value is lower than that because at the time of privatisation of many infrastructure industries in the 1980s, assets were sold at a heavy discount. So, in case of the UK,

Net Book Value – Privatisation Discount = Value of RAB

As of April 2014, the Scottish Parliament found that PFI projects, on average, resulted in unitary charges of around 5.4 times the total capital value of the projects, whereas the figure for NPD projects was 3.9 times the capital value.

Source: Scottish Parliament 2013, 2014, Hellowell and Pollock 2009, Wamuziri 2010

They had achieved these savings by reviewing their existing contracts with the private sector and secured "efficiency savings" by changing the parameters for services or by finding better use of the assets (HM Treasury 2015b).

In 2014, it was observed that departments of the UK Government and their associated contracting authorities were considering the option of exercising clauses in their PFI contracts which would lead to early, voluntary termination of PFI arrangements for no fault of the supplier. In response to this, in March 2015, the Treasury said that authorities looking to terminate PFI contracts would have to carry out detailed cost-benefit analysis to compare the situation of termination of contract and the situation of carrying forward with the contract to show whether termination would indeed lead to better value for money (HM Treasury 2015a).

Thereafter, the Treasury would have to approve the termination. Further, in June 2015, the Treasury issued a detailed policy note on early termination of PPP (including PFI contracts) which explained the budgeting, accounting and fiscal implications of a voluntary termination of a PFI contract by a contracting authority, as well as the review and approval process that should be followed (HM Treasury 2015c).

4.2.5 Consideration of other options

There was a strong perception among the government decision makers that PFI was the "only game in town" for social sector infrastructure projects such as building and operationalising hospital and school facilities. Hence, it is important to consider whether alternatives, apart from conventional public procurement exist for PFI.

Existing evidence and experience suggests that the following PPP options might be worth consideration too: the Non Profit Distribution (NPD) model which has been used by the Scottish Government since the late 2000s, the Regulatory Asset Base (RAB) models which have been used extensively in hard infrastructure in the UK, and the model of Local Asset Backed Vehicles (LABV) which have also been used, especially by regional and local governments in the UK. Boxes 4a, 4b and 4c below aim to provide basic information on the unique features of these models.

Box 4c: Local Asset Backed Vehicles (LABV)

Local Asset Backed Vehicles (LABVs) allow local and regional authorities to use their assets (most often, land) to obtain long term investment from the private sector for hard infrastructure-related projects. The crucial starting point of engaging in this type of a PPP is for the concerned public sector department/ authority to identify its portfolio of assets, valuate them and then identify the kinds of infrastructure projects they would like to carry out. The public sector must then transfer its assets into the partnership and the private sector brings in the finance, with the two sectors collaboratively working on technical expertise and capacity to deliver.

Typically, an "LABV", which is a separate legal and commercial entity, has to be established by equal shares and equal representation from the private and public sectors. Thereafter, details of the asset portfolio, together with business plans for each individual asset and infrastructure project plans, are produced and circulated to potential investors, who then submit bids for the portfolio. Once the investors are secured, a management team is formed to oversee the running of the LABV – which might also be referred to, simplistically as a company.

In the UK, area-based LABVs have been carried out mostly by regional authorities and due to varying capacities and differences in assets and ambitions of the authorities, each LABV has been tailored to the specific local conditions.

Source: Harrison and Marshall 2007, Thompson 2012

5. IMPLICATIONS OF A PFI-TYPE SCHEME FOR INDIA

As the Government of India and governments of various states in India, consider ways to use PPPs for sectors such as education and health, they can draw implications from United Kingdom's more than two decades old experience with the Private Finance Initiative (PFI).

First, as demonstrated by the case of public sector departments which have engaged in PFI projects in the UK, Indian government agencies and departments which are contemplating PPPs in the social sector must equip themselves with project management and contract negotiation abilities. Further, the staff would also need to have an understanding of how to carry out a comparative analysis of conventional procurement and the PPP route(s) (as many forms of PPPs may be considered), as well as professional staff which can assist in estimating the fiscal commitments, especially the liabilities created.

Second, once the PPP-linked liabilities have been estimated they must be reported clearly in budgetary and accounting statements of public sector departments. The experience of PFI shows that there has been a constant budgetary and fiscal incentive for public sector departments to encourage the use of PFIs since the liabilities created would mostly not contribute to the calculation of the national debt statistics. Further, since a majority of the PFI projects were classified as being off the balance sheet, the associated contingent liabilities were neither estimated nor reported. This issue becomes more pertinent as there were implicit government guarantees in PFI projects – implying that in case of failure, the costs would have to be borne by the public sector. This has, in many cases, led to wrong decision making in the UK since objective decisions were not taken, and contingent liabilities not estimated, and must be avoided in India's public sector organisations.

Third, during the formulation of a PPP contract, processes such as whole-life costing need to be carried out by experts in a strategic unit, using the concept of shared services among different government organisations. Whole-life costing can be especially challenging in case of social sector projects as they heavily depend on demographics which might undergo changes. As mentioned earlier, in case of England, presently the expertise and guidance in relation to PFI projects specifically, and PPP projects more generally is provided by an institutional structure which has units at the central government-level, as well at the local government-level (detailed in Box 3).

In the case of India, this can be carried out at the Union government level by the PPP Cell at the Ministry of Finance, Government of India, or other designated agencies. With regard to social sector PPP projects, sector-specific knowledge would need to be housed in expert PPP divisions at the Ministry of Health and Ministry of Human Resource Development at the Government of India. In this context, the NITI Aayog has also suggested that every Ministry engaged in PPPs should create a dedicated division for monitoring of PPPs with full time staff and budgets to hire appropriate experts (NITI Aayog 2015).

Given India's federal structure and since both education and health are "state subjects", such PPP divisions may also need to be created at health and education departments of state governments. India's large population and federal structure requires several such "shared services" centres, which can provide expertise and create databases for evaluation of comparative performance.

In addition to staff with expertise at the PPP divisions, there will also need to be estimations of the number and quality of staff required at the sites of service delivery including engineering, construction, project management and leadership staff. The Treasury of the UK Government has most recently made such estimations for the next five years. These are detailed in its National Infrastructure Plan for Skills, which presents these estimates of staff requirements, including the skills and training they ought to be equipped with (HM Treasury 2015d).

Fourth, the PFI experience shows that inappropriate risks may be transferred to the private sector which could adversely impact the value for money of a project. Hence, risk sharing between the public and private sectors needs to be carefully contemplated and appropriate pricing of PPP contracts carried out. 'Bundling' of services, as has been done in case of many PFI projects in the social sector in the UK may enable a reduction in transaction costs but 'bundling' also leads to creation of complex contracts which might lessen accountability and may be difficult to renegotiate. It is essential that the private sector and public sector players who are involved in a PPP contract agree on a common agenda such that any conflict of interest is avoided and a balance is struck, to the extent possible, between 'bundling' of services and the transaction costs.

Fifth, the common financial structure of PFIs in the UK has been debt heavy but with PF2 efforts have been made to involve more institutional investors in the debt component of these projects.

In India, long-term funds, including pension funds, funds of the Life Insurance Corporation (LIC) and provident funds of the Employees State Insurance Corporation (ESIC), and funds from the Reserve Bank of India (RBI) and commercial banks, are routed towards buying central government securities (Wells and Schou-Zibell, 2008). Hence, if financing structures such as those used in PFI are to be adopted by PPPs in India, directed efforts will have to be made to engage with these institutional investors. More research on specialised financial instruments which could attract domestic institutional investors to PFI-type projects is needed.

Sixth, the ability and willingness of policymakers in the UK to fundamentally reform some aspects of PFI and to reverse some other aspects is commendable. This is an area of relevance for India as there is scope for many existing subsidy schemes and public project arrangements that have not been fundamentally altered for a long period.

Finally, information and data systems for performance monitoring as well as for benchmarking would need specific attention. This would not only need to be established as soon as the PPP is implemented, but the data would also need to be periodically analysed to give feedback to the private and public sector stakeholders involved in the PPP, through the life of the project. For this data to be used effectively there ought to be clauses in PPP contracts which allow for renegotiation of contracts, as well as changes in case savings are identified in certain components of the contract.

As in other areas, there is no substitute for competence, careful preparation based on relevant data, and focus on meeting citizens' needs for better quality of living and of life when using the PPP method in the social sector in India.

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