THE FINANCIAL STRUCTURE OF PRIVATE FINANCE INITIATIVE PROJECTS

Akintola Akintoye1, Matthias Beck2, Cliff Harcastle1, Ezekiel Chinyio1 and Darinka Asenova2

1 Department of Building and Surveying; Glasgow Caledonian University, 70 Cowcaddens Road, Glasgow, G4 0BA, UK
2 Division of Risk; Glasgow Caledonian University, 70 Cowcaddens Road, Glasgow, G4 0BA, UK

Over the past years PFI has become a key approach to public –private partnership in the UK. Unlike other forms of co-operation between the public and the private sector, PFI involves the investment of private capital in projects, which provide services to the public. This paper focuses on the financial structure of the PFI schemes and explores the financing options available to PFI participants. Based on 48 elite interviews with senior representatives from leading UK international companies, we identify the currently predominant form of finance through senior and subordinated debt, which we contrast with the use of bond finance and some rarely used financing methods like lease finance and Mezzanine finance. We note that the convergence of PFI financial practices allows for the use of financial models, which lend themselves to standardization. Our paper concludes with the proposition that a greater standardization of the planning practices associated with PFI, could help counter criticisms of PFI which view this type of procurement as inefficient and costly.

Keywords: equity, financial institution, private finance initiative, project finance, special purpose vehicle.

INTRODUCTION

Since 1992 the number of PFIs in the UK have been steadily increasing. Today more then 300 projects with a total capital value over £12 billion have been signed (Robinson 2000). Most of these PFI transactions involve a long-term contract in the range of 20-30 years, under which the private sector takes an obligation to provide a service of certain standard.

Compared with the traditional procurement, PFIs put an emphasis on the provision of service rather then the provision of a facility (Goldsmith, 1997). The public sector typically defines the service required, while the private sector supplier undertakes the design, building, financing and operation of the facility, which at the end of the concessional period becomes public sector asset.

According to the Treasury Taskforce (TTF) (1997) “PFI solutions should be pursued where they are likely to deliver better Value for Money (VFM)”. In many PFIs risk transfers play a crucial role in ensuring that VFM criteria are met. Thus, most PFIs transfer the bulk of the project risks to the private sector. This risk transfer takes place through the constitution of a new organization, i.e. a consortium or special purpose vehicle (SPV) which includes the main private sector companies engaged in particular project, namely a construction company, facilities management company (or operation company) and project financiers. Figure 1 depicts a typical set-up of a PFI scheme and the main participants.
The cost of the PFI projects is frequently in the range of millions of pounds. When private companies come together to form the consortia or the SPV they have to demonstrate their commitment to the project by providing a small amount of capital, but this is by no means sufficient to finance the construction phase. This is why at the early stages of the bidding process, the SPV members (or their advisors) approach different banks to obtain letters from them, confirming that the project is viable and there are banks willing to back it up. During next stages of the PFI process, financial companies are involved in a rigorous process of project’s risks evaluation and subsequently they refine the terms and conditions of their commitment. In some cases the SPV members may be willing to take certain risks, however, the financier will scrutinize their views as to the soundness of the risk allocation. During this process, finance companies utilize a range of tools to ensure effective funds provision, contract enforcement, sharing their market information and risk management skills (Santomero and Babbel, 1997, King, 1999). In this context, finance companies play a vital role in the overall PFI risk management and project management.

This paper investigates the financial options currently available for PFI schemes. After a brief introduction into the key rational underlying PFIs, section two of this paper investigates the principles underlying the conventional approach to project finance in PFIs. Section three then looks at the main methods for financing PFI schemes, e.g. bank debt, bond finance, etc. Section four summarizes our research findings with respect to the main financing methods used in PFIs and discusses some less common types of finance like lease and mortgage finance. Section five concludes with a discussion of factors, which influence the financial structure of particular projects and the possibilities for standardization, which these factors create.
THE PFI AS A FORM OF PROJECT FINANCE

Project finance
Project finance (PF) refers to situations where the loan for the project is repaid from the future cash flows of the project. Project finance has been used widely for financing infrastructure and public sector facilities like hospitals, power stations, prisons, etc. Project finance originated from America where these schemes were introduced to finance the exploitation of Texan oil reserves (Leeper, 1979). These schemes were set up because project sizes were growing larger and entrepreneurs could not provide sufficient collateral for any bank loans.

The key requirement of project finance is that long-term assets should be funded by long-term capital (Carrick, 2000). Most PF (and PFI) loans are financed on limited (or non-) recourse basis (Zakrzewski, 1999, Carrick, 2000) i.e. the lenders’ recourse is restricted to the project assets and cash flows. In this context, the credit risk associated with the borrower is of little importance and the finance must be judged almost entirely on the basis of the risks that may threaten the project completion and operation. Therefore, the main concern in PFI often is whether the project can provide an adequate return on the investment (Sarmet, 1980). Because of the reliance on cash flows, financial institutions tend to adopt a thoroughly scrutinized approach to ensure that no risk has been left unchecked. Strict non-recourse PF is now rare, as financiers insist on some risks being borne by the sponsors (Sarmet, 1980).

Issues considered by the financiers
Currently the main form of capital raised for PFI projects is senior bank debt, whereby the debt lender assesses the creditworthiness of the borrower.

Financiers attempt to ensure that all risks have been allocated to the project participants appropriately (Leeper, 1979). Among the issues being examined when entering a transaction are (Stein, 1995):

- Adequacy of the cost coverage
- Credit worthiness of the parties
- Track record of the SPV companies
- The importance placed on the project
- Technological reliability
- Sufficient revenue generation potential to service the debt.

Since the success of the project is of primary importance to the financiers they periodically observe a number of financial indicators.

FINANCING METHODS IN PFI SCHEMES

Main financing options
Although SPV members supply only small amounts of equity (about 10 - 15%) they have several financial options for financing PFI schemes. These include traditional bank debt and provisions by other financial institutions through the bond market, or in some cases by leasing houses and private placement funds (Ellis 1999, Pickering 1999).
The balance of the financial requirement usually comes in the form of equity or quasi-equity (or deeply subordinated debt1). In larger projects (above £50 million) there is sometimes scope for the introduction of a third layer of capital to the senior debt or the quasi-equity in the form of Mezzanine finance (Morrison 1998).

Large PFI projects can be financed by different mixtures of these financing options e.g. by bank debt and bonds (fixed rate or index linked). The choice of financing methods for a particular project depends on its specific requirements, the project risks, the amount of equity available, and the perceived quality of the consortia. It has been argued that no single financing option is ideal for all projects, as each new project carries unique risks, has a different risk profile and is accessible to different funding sources (Wynant, 1980).

**Capital market products in PFIs finance**

Over the last couple of years PFI financing has become increasingly competitive, as new and innovative financing solutions have been introduced. In November 1997, Paribas concluded the first bond financed PFI transaction for £88m where the borrower was a local authority. This signalled new capital market opportunities for long-term cost-effective financing (Euroweek, 1999). This transaction has been used as a template for similar transactions in the UK and in Europe. Another financial innovation in the PFI market occurred in July 1998 (£91.2m led by Barklays Capital), when, for the first time a hospital project was financed by an index-linked bond (Euroweek, 1999).

The main advantages of bond financing are the length of credit terms and higher margins. Due to the lengthy negotiations some financiers argue that their margins do not correspond to the time and effort required (Oliver 1998). The increased competition on the capital markets has resulted in increased maturity periods beyond the traditional 20-23 years, and in some cases exceeding 30 years (Dixon 1999, Ellis 1999). This provides institutions with long-term lending traditions like building societies and former building societies with an excellent opportunity to utilize their experience in a new area (International Projects 500).

The interest of the private sector towards PFI projects has been growing, which is largely due to new financing opportunities. In general, the financing tools ensure negligible credit risk in relation to the payment of the income stream. However, financiers still need to consider, evaluate, and hedge the risks that can affect the flow of income (Mangat 1999).

Nowadays there are a number of domestic and international banks with substantial expertise and experience in PFI schemes. The leading names include Bank of Scotland, ABN Amro, Royal Bank of Scotland, DMG, Bank of America and Dresdner Kleinwort Benson (International Projects 500). They have acted as a sole or lead arranger, advisor or loan provider in a number of PFI deals.

**Refinancing PFI projects**

The refinancing of projects involves changing the conditions on which a loan was initially provided. Refinancing of PFI projects has become possible only recently, due to the increased confidence in the financial markets towards PFIs. The refinancing is suitable for some earlier projects, where the construction had been completed and

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1 Deeply subordinated debt is having a claim against issuer’s assets that is of lower ranking compared to other obligations.
successful operation has been demonstrated. Therefore the risks to the project are substantially reduced. The key components of the refinancing may include changes in interest rates, repayment dates, margins and the level of senior debt (TTF, 1999), etc. Refinancing brings higher profits to the shareholders, but does not necessarily mean that the public sector can share the benefits. Capital markets are expected to play a significant role in the refinancing of PFI projects by providing efficient resources in terms of longer repayment periods, cheaper, and more highly geared debt.

RESEARCH FINDINGS

Research sample and methodology
As part of our study of PFI practices in the UK, we investigated the practitioners’ views on financing options available for PFI. A total of 48 elite interviews were conducted with PFI participants from the public sector, the private sector and independent consultancy companies (incl. legal, technical, insurance, etc.). Among the private sector companies 10 leading financial organizations were interviewed, all of them with a substantial record in the PFI transactions. With some exceptions, the other participants in PFI process were familiar with the financial structure in broad terms. On the public sector side, representatives from the central government bodies demonstrated a close understanding of the financial issues, compared to local government interviewees.

The sample of the financial companies included representatives from a number of areas of financial engagement in PFI, i.e. debt arrangers, senior debt providers, financial consultants and equity providers. Table 2 gives a breakdown of the staff knowledgeable of financial issues by area of activity.

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<th>Table 2: Breakdown of the financial companies</th>
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<td>Debt arrangers</td>
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<td>Senior debt providers</td>
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<td>Equity providers</td>
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<td>Consultants</td>
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<td>Principal</td>
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During the interviews we focussed on a number of PFI related issues, including the typical financial structure of PFIs, the predominant forms of financing, their advantages and disadvantages, etc.

Financial structure
As concerns the financial structure of PFIs, respondents emphasized that the financial structures of PFIs depended very much on the type of the operational ‘envelope’ and the interaction between the main parties (Figure 1).

Accordingly, SPV consortia typically had very limited resources. In order to pay for the design and build contract it needed to borrow capital from a bank or another financial institution. In most set ups the construction and operational contracts passed the majority of the risks on to the construction and the facility management contractors, while the SPV acted merely as a conduit, that legally represented the private sector to the client. In this context the main task of the SPV consisted of borrowing money and distributing it. Some large corporations, particularly in defence deals did not form SPVs as they financed the transaction on their corporate balance sheet without bank debt or bond finance.
Figure 1: Main PFI financing options according to the survey

Respondents pointed out that, in some projects, European Investment Bank (EIB) funding had been utilized in a form of public institutional debt. EIB finance has the advantage of being cheap, with strong credit rating. The drawbacks are that the EIB does not want to take on construction debt, may involve bureaucratic procedures which are time consuming.

According to the experience of our respondents the main financing options for PFIs included, i.e. bank debt (85%) and bonds finance (6%). These were usually combined with sponsors’ equity (Figure 1). More rarely, respondents noted the use of lease finance (3%), mortgage finance (3%) and financing without external contributions (2%).

Senior bank debt
The majority of the respondents (85%) ranked senior bank debt as the predominant form of PFI finance. Usually SPV companies borrow different amounts of money from different sources. The lender providing main source of funds (about 90%) stipulates that its loan should rank as senior debt and will have precedence over other debts for re-payment. Due to this re-payment priority and the perceived security the senior debt carries the lowest interest. Bank debt can be either syndicated or non-syndicated. Generally, large deals tend to be syndicated (e.g. debt funding requirement above £20 million). The syndicator acts as investment manager collecting fee from the borrower and arranging for the sale of the debt to other banks. At the same time the syndicator keeps a small proportion of the total financing (about 10%).

Subordinated debt can only be claimed after the claims of the senior debt creditors have been made. Therefore, the subordinated debt is more risky and carries a higher interest rate compared with senior debt.

Bond finance
Bonds are considered one of the immediate options for senior debt financing. The biggest drawback of bond financing is that it is considered inefficient for small transactions, i.e. it usually becomes an efficient means for financing if the contact value is above £50 million. Notably, there is now downward pressure on this minimum amount.

Bonds can be of two types - publicly issued bonds or privately placed bonds. Privately placed bonds are bonds which large financial institutions buy and hold.
The risk profile of the publicly placed bonds can differ widely. Monoline enhanced bonds (also called ‘credit enhanced’ bonds) have become popular, because the monoliners act like insurance companies, which guarantee the bond (or ‘credit enhance’) and the payment of the principle and the interest. Thus the project specific risk of default is removed from the ultimate purchaser. In other words, the purchaser of the monoline wrapped bond will have the default risk insured, which improves the credit quality and gives comfort to the investors.

The second type of publicly placed bonds includes non-enhanced bonds, where, in case of the project experiencing difficulty, the purchaser takes the direct risk.

**Comparison between bank debt and bonds finance**

Previous predictions that bond financing will replace commercial bank loans have not proved to be the case. Table 2 compares the opinions of the interviewees from financial companies on traditional bank debt versus bond finance.

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<th>Bank debt</th>
<th>Bond finance</th>
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<td>Flexible finance</td>
<td>Fixed regime finance</td>
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<tr>
<td>Low cost</td>
<td>Wrapped product with even lower cost</td>
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<tr>
<td>Low disclosure requirements</td>
<td>Public listing and high disclosure requirement</td>
<td>Need to involve third parties</td>
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<tr>
<td>Quick to deliver</td>
<td>Can be extended even beyond bank debt</td>
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<tr>
<td>Long-term finance</td>
<td>More difficult to refinance</td>
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<td>Refinancability is easy</td>
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Some specific project types with long duration, low performance and low technological risk are very suitable for capital markets, e.g. hospitals, waste management, etc. Other more dynamic sectors like IT are not that suitable.

In the future, capital markets are expected to play a significant role for refinancing PFI projects by providing efficient resources in terms of longer repayment periods, cheaper, and highly geared debt.

There is no universal rule for choosing specific financing options. PFI projects require substantial capital expenditure which is provided in increasingly competitive conditions.

**Equity**

Equity and quasi equity in the range of 10-15% are normally present in the PFI deals, where pure equity is ordinary share capital and quasi equity is subordinated debt. Subordinated debt has become almost universally used because it allows certain underlying efficiencies. These efficiencies are two types: tax related and legal. Tax related gains are based on the fact that interest on subordinated debt is tax deductible and enables the SPV to have a lower tax bill.

The other reason for the usage of subordinated debt may be related to the nature of PFI transactions. In most cases SPVs are very highly geared and have a small equity cushions. At the project completion, as soon as the SPV starts trading and operation, there is therefore a high interest charge against the profit and loss account, as well as a significant depreciation charge. Consequently, the SPV tends to have retained losses and does not pay dividend. However, subordinated debt interest and principle can be re-paid even if the company makes losses.
Other Types of Finance
A type of finance that is now becoming relatively less important is project finance lease. Only 3% of the respondents have used this type of finance. The project finance lease involves large lease financial institutions, which own the assets for tax purposes, retain the benefits of capital allowances, and charges the SPV a series of lease payments. These structures have been used in some earlier water treatment works and power projects.

Mortgage finance was also mentioned by a small number of respondents (3%). It refers to situations were the asset is owned conditionally by the SPV. The borrower has the right to use the property while the mortgage is in effect and agrees to pay on regular basis towards the principle and the interest.

Lastly, institutional funders such as large insurance companies, pension funds or occasionally investment banks, often provide Mezzanine finance. It is an independent product often provided by a third party. In terms of interest it sits between the senior debt and the equity or queasy-equity. Mezzanine finance carries higher margins then the senior debt because it is further down in the subordination chain, and lower margins then the subordinated debt.

CONCLUSION
Financial companies play an important role in PFI transactions where they perform different functions including debt arrangement, debt and equity provision, and financial consultation. In addition to this, they ensure that the whole multi company operation runs smoothly according to the financial plans.

Apart from a small amount of equity the currently predominant form of finance is senior bank debt (85% of the respondents). The bond finance is an immediate alternative option for large transactions, i.e. those of above £50 million. The monoline enhanced or credit enhanced bonds have a growing popularity, due to their high credit rating.

The comparison between bank debt and bond finance, according to the survey, indicates that bonds are more appropriate for projects with long operational period, if the technological obsolescence is not an issue.

As a general rule, equity is always present in these transactions, although there may be some exceptions. Normally the SPV members sponsor the project, but some equity providers may also invest on behalf of other companies. Due to some tax related and legal considerations subordinated debt is often used instead of pure equity.

Other less popular types of finance include lease finance, mortgage finance, and Mezzanine finance.

While PFI deals are complex and expensive to structure there now appears to be some convergence in terms of the financial make-up of PFIs. This convergence is likely to make it easier for PFI to adopt a standardized approach to PFI transaction, whereby both the basic pattern of financing and its architecture are predictable.

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