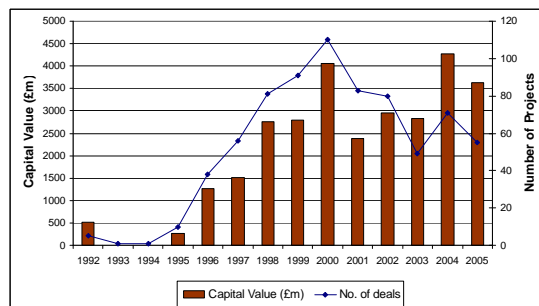


## Applying PFI to the Infrastructure and Public Service Requirements of Developing Countries

### 1. Introduction

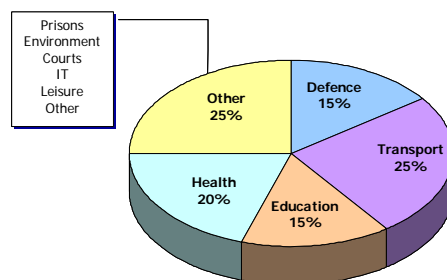
- 1.1 PFI is an arrangement whereby a public body contracts to purchase services, on a long-term basis, so as to take advantage of private sector management skills, incentivised by having private finance at risk. Such arrangements include long-term concessions where a private sector partner takes responsibility for providing all or some of the public services. This can include the operation of services, as well as maintaining, enhancing or constructing the required infrastructure from which the public service will be delivered.
- 1.2 PFI was launched in the UK in 1992. Although now with global appeal, the UK continues to host the largest PFI programme with over \$60bn invested in public infrastructure via PFI (see **Figure 1**).

**Figure 1 – Scale of UK’s PFI Programme**



- 1.3 In the UK, PFI has contributed to public infrastructure in a wide variety of sectors (see **Figure 2**).

**Figure 2 – Analysis of Sectors of UK PFI Programme**



**Capital Values**

- 1.4 The key features of PFI include:
- Output based contracting whereby a public body receives a defined service (for example, managed accommodation, waste incineration etc.) rather than a resource (such as a road) or a facility (such as a prison or hospital);

- Where payments commence only once the service is up and running satisfactorily and those payments are spread fairly evenly over the whole life of the concession and subject to an agreed payment mechanism;
- Where the private sector partner accepts whole life investment responsibilities for the resource or facility;
- Where poor performance by the private sector partner is penalised by reducing monthly payments;
- Where very poor performance can lead to termination of the whole contract.

1.5 In the UK PFI schemes are not just limited to the provision and maintenance of public infrastructure. In prisons, for example, the private sector is invited to provide both the asset and the prison officers under a long-term output-based contract. In health, private sector suppliers have been awarded mandates to provide surgical, diagnostic and primary care services under output-based contracts under which they also provide and manage the infrastructure required to deliver the clinical service.

## 2. Background

2.1 The demand for investment in public infrastructure on a global level is huge. The World Bank has estimated that annual investment of \$850bn is needed, year-in, year-out, over the period 2005-2010, with about 55% of this investment required for infrastructure maintenance alone.

2.2 The overwhelming majority of investment in developing country infrastructure continues to be delivered through traditional procurement techniques, using public capital<sup>1</sup>. Conventional procurement mechanisms in the developing world suffer from many of the shortcomings that are common in developed countries. For example:

- Procuring authorities have limited capacity and capability to deliver (so allocated budgets remain un-spent);
- Projects can be poorly prepared, leading to frequent scope changes and resulting in time and cost overruns;
- The infrastructure provided is frequently not maintained properly, resulting in backlogs of maintenance and a gradual erosion in the quality of public service delivered from that infrastructure.

2.3 Infrastructure investment using **private capital** has grown significantly although, over the last decade or so, this growth has principally manifested itself through efforts to create competitive markets, particularly in energy and

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<sup>1</sup> According to DfID calculations, e.g. the public sector financed 70% of overall infrastructure spending through the 1990s (when private flows into infrastructure reached their peak), with ODA contributing about 5-10% and private investment making up the rest (quoted in Briceno-Garmendia, C. Estache, A and Shafik, N (2004). *Infrastructure Services in Developing Countries: Access, Quality, Costs and Policy Reform*. World Bank Policy Research Working Paper 3468, pp 16-17). Similarly, the larger share of DfID aid goes into direct budgetary support to its recipient countries, through which infrastructure is often procured using conventional public sector procurement mechanisms.

telecommunications. This has often been accompanied by the privatisation of public sector monopolies, alongside attempts to shift the cost burden away from taxpayers to consumers.

- 2.4 To a lesser extent, particularly in sectors like roads, ports and water where exogenous competitive forces are weaker, attempts have been made to introduce private capital and capabilities through the award of long-term concessions. These arrangements again use revenues from user tolls or tariffs to provide long-term financial underpinning for the investment in the infrastructure delivered.

### **3. Artificial Boundaries on Private Sector Involvement in Infrastructure Provision in Developing Countries**

- 3.1 The involvement of private capital in infrastructure in developing countries is still overwhelmingly associated with “hard” infrastructure, particularly utilities and communications. Its use in funding “social” infrastructure, in areas such as health and education, is much less common. This is quite surprising considering the role these sectors can play in cementing development endeavour so that sustainable (and even self-sustaining) improvements are made. It is even odder when considering the amount of development funding that is now aimed at improving health and education outcomes and the catalytic role that new social infrastructure might play in achieving these outcomes.
- 3.2 This state of affairs perhaps betrays some pre-judgments about the benefits of using private capital. It is a truism that revenue needed to fund the cost of new infrastructure must be sourced from tax revenues, from users or, for developing countries, from external aid. Both governments and the private sector can, in theory, raise the capital required to create infrastructure and then rely on a combination of these revenue sources to service and repay that capital.
- 3.3 Governments that view enthusiastically private sector participation in energy, telecoms and water can lose interest rapidly when it comes to schools, hospitals or social housing, because user charging is considered less feasible in these sectors. However, user charging is not a necessary condition for private sector involvement in the delivery of infrastructure for public services. In fact, the underlying benefits of involving the private sector in the whole life costs of infrastructure – the commercial discipline that renders transparent the long term cost of infrastructure provision, and ensures efficiency in its provision – can be secured regardless of whether or not users pay for services.
- 3.4 The compelling distinction between government and private sector investment relates to incentives and their impact on behaviour. The private sector is commercially motivated and incentives are structured to maximise revenues and to minimise costs. The incentives that operate when the private sector puts its capital at risk to the long-term performance of a service can and have been harnessed in developed countries to provide social infrastructure more efficiently. Incentives on public sector providers are less clear-cut and “principal-agent” hazards can dilute their effect. Political or social imperatives, or even budgetary structures, can obscure the relationship between those responsible for funding budgets and the levels of spend arising on individual projects.

- 3.5 The effects of these systemic weaknesses are compounded in developing countries by the prevalence of corruption, particularly in the construction sector. Entrenched networks of collusion, bribery and other forms of fraud between public officials and contractors act to undermine the effectiveness of infrastructure investment and add to the long-term costs for users<sup>2</sup>.

#### **4. The Contribution PFI Can Make**

- 4.1 In many developing countries, the need for new and upgraded infrastructure dwarfs the need for recurrent maintenance to offset depreciation of existing assets. Governments and donor agencies need to assess the strengths and weaknesses of the different procurement approaches available, as well as the capacity of the public sector in different countries to implement them. Ideally, a well-balanced procurement strategy should be established that operates across the public sector. The procurement approach best suited to the particular investment purpose should be deployed. This procurement strategy should aim to achieve the delivery of high quality, well-designed infrastructure, to time and within budget, and maintained over the full economic life. PFI should be one route available to public procurers.

- 4.2 PFI seeks to cure two systematic shortcomings of public procurement. These are:

- Optimism bias; and
- Short-termism.

- 4.3 Optimism bias denotes a tendency on the part of procuring authorities (in both the public and private sectors) to systematically under-estimate costs and time incurred and/or over-estimate benefits that arise when investing. Short-termism denotes the tendency, particularly prevalent in the public sector (and often encouraged by budgetary structures), to make investment decisions on the basis of one-off capital costs, without taking proper account of the whole life costs of maintaining that infrastructure.

- 4.4 The most important benefit of PFI in the context of developing countries is that it can accelerate the pace and scale at which investment is made in public infrastructure and in such a way that time and cost-overruns are eliminated, whilst ensuring that services are sustainable in the long term (in the sense that long term maintenance is built into the contract). Whilst the direct social benefits of such investment is obvious, the broader economic effects should not be ignored. Governments which implement successful investment programmes are likely to be able to achieve higher growth rates with a given level of public expenditure<sup>3</sup>.

- 4.5 Another benefit may arise from the ability of PFI approaches to help combat corruption in tendering processes. According to Transparency International's Global Corruption Report 2005, construction (particularly related to large infrastructure projects) is one of the most corrupt sectors in the developing world. It is interesting to note some of the features of construction projects that Transparency International believes make them particularly prone to

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<sup>2</sup> *Global Corruption Report 2005 (Transparency International)*

<sup>3</sup> *Public Infrastructure and Growth – New Channels and Policy Implications (Agenor and Moreno-Dodson)*

corruption – these are *“opportunities for delays and overruns...the fact that quality of work is rapidly concealed by concrete, plaster and cladding,...(and)...that projects are executed by dozens, sometimes hundreds of small-scale sub-contractors creating a maze of transactions that are difficult to monitor.”*<sup>4</sup>

- 4.6 Procurement using PFI approaches might provide an effective solution to a number of these problems. To start with, delays and cost overruns are almost entirely removed because of the fixed price, turnkey nature of the contract. Then, if the contractor cuts corners on the quality of design or construction, this ultimately hurts private investors who will not recover their capital if the infrastructure does not perform in line with requirements over its economic life. Finally, PFI works on the basis of the public sector contracting with a single consortium, which takes single-point responsibility for managing the entire chain of sub-contractors at lower levels.

## 5. Using International Aid to Access Private Capital through PFI

- 5.1 In the chronicle of private sector participation in infrastructure, many low income countries (especially sub-Saharan African nations) are conspicuous by their absence both from the list of countries that received private investment in the 1990s and from the list of countries courting private investment in the first decade of the 2000s.
- 5.2 In recent years, a growing consensus has emerged on the need to increase aid flows to poor countries, supported by a clear-eyed determination to improve the effectiveness of any aid provided. In 2003, the UK's Department for International Development and HM Treasury put forward proposals to kick-start investment programmes in developing countries by raising private capital on the back of committed future donor commitments. This initiative is known as the International Financing Facility (IFF).
- 5.3 The principle behind IFF - raising private capital to invest today against committed future aid revenues – has striking parallels with PFI albeit, with PFI, a project or asset is typically the discrete product of the private capital introduced. Moreover, PFI is a method of securing long term budgetary commitment to fund the whole life costs of infrastructure investment.
- 5.4 It is possible to combine an IFF-type approach, which sees private capital raised systematically on the back of future aid commitments, with PFI arrangements, that place that capital at risk to the long term service performance of the specific infrastructure it is used to fund. In such circumstances, long-term donor commitments might **not** be used to directly fund the up-front costs of investment – this could easily be done by private capital. They could though, be used to fund some or all of the year-on-year revenue costs that result from introducing the new infrastructure.
- 5.5 The benefits to donors and to the public services they seek to invest in are clear, namely:
- Assets are not just properly built, but also properly maintained;

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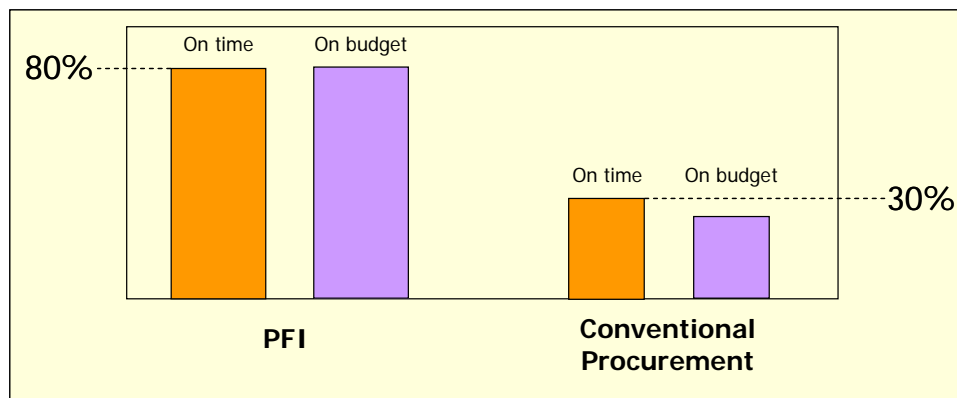
<sup>4</sup> From the GCR highlights: [http://www1.transparency.org/pressreleases\\_archive/2005/dnld/english/highlights\\_report.pdf](http://www1.transparency.org/pressreleases_archive/2005/dnld/english/highlights_report.pdf)

- Donor funds are committed only when the associated public services flow;
- Donor funding halts or reduces if the quality of the service is inadequate or is interrupted.

5.6 The consequential benefits of introducing PFI-type arrangements are also worth highlighting. The fact that private finance is at risk does appear to be leading to improved performance with construction delays and cost over-runs becoming largely a thing of the past when PFI is used (see **Figure 3**).

**Figure 3 – Comparison of PFI and Conventional Procurement**

### Delivery on time and on budget



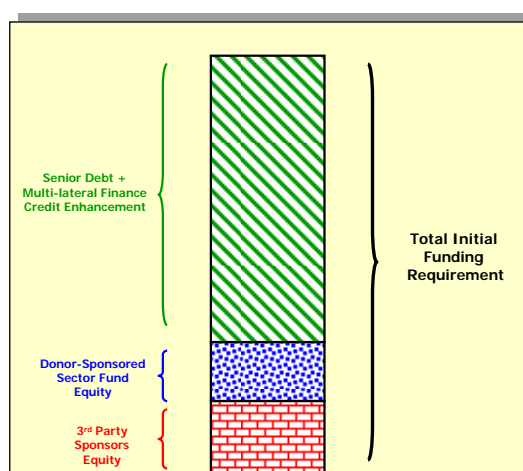
### Performance of completed projects – No. of Projects

Sources: National Audit Office – UK Parliament - Expenditure Auditor

- 5.7 An additional important benefit of using ongoing donor commitments in the way described above is that developing countries may be able to avoid the significant obstacles they face in attracting private capital due to poor sovereign credit ratings. If properly designed, long-term donor commitments can be used to underpin the ongoing contractual obligations of countries with imperfect credit ratings and, if required, underwrite any compensation obligations that may crystallise in the event that the PFI contract is terminated before its expiry date. Multi-lateral project finance bodies, such as the International Financial Corporation, do provide valuable assistance in this area. However, their coverage is neither comprehensive nor costless.
- 5.8 Under this approach, a contracting authority in a developing country could be guaranteed ongoing revenue support from a donor-sponsored fund which it could then call on to finance the unitary charges payable under a well-performing PFI contract. Such a fund could also be used to finance technical support to the procuring authority to assist the preparation and project management costs of implementing PFI. This would play an important role in ensuring that projects are properly prepared, resourced and fairly competed.
- 5.9 Not only might private capital be attracted into developing countries by the assurance that a donor-sponsored fund could provide against ongoing payment obligations, its supply might also increase if that fund sought to introduce deeply subordinated (or even primary equity) finance into PFI deals. By doing this, the donor-sponsored fund would effectively extend protection beyond country-specific events of credit risk (which would be achieved by

wrapping the contracting authority's payment obligations) and into areas of specific project difficulty, where the risk would otherwise sit squarely with the private sector partner. In effect, in this structure a buffer layer of capital would be introduced, upon which senior lenders might call in the event of the project under-performing. Such a funding structure might appeal particularly to developing countries newly-introducing PFI-type investment programmes where local country experience may be unavoidably low. Equally, it might be attractive where, with an eye on sustainability, indigenous supply chain partnerships between experienced international PFI players and local operators are being actively encouraged by governments in developing countries. **Figure 4** illustrates what a typical PFI funding structure might look like in these circumstances.

**Figure 4 – Typical PFI Funding Structure Including Donor-Sponsored Subordinated Finance**



5.10 In such circumstances, the donor-sponsored fund would benefit from having clear transparency into the operations of the private sector partner (both during and after construction). In addition, the structure will provide accelerated remediation or step-in rights to the donor-sponsored fund in advance of similar rights being activated by senior lenders.

## 6. The Need for Client-Side Transaction Support

6.1 PFI programmes raise a number of important implementation issues for the public sector. A wide range of government institutions and processes are challenged by the PFI process and not only those in the sponsoring ministry, but others, such as the Ministry of Finance and national auditing bodies. The introduction of PFI programmes must be accompanied by the creation of transaction capability and capacity on the public sector side first, to negotiate and contract with the private sector and second, to determine and settle ongoing payment arrangements in a transparent and resilient way.

6.2 If a coherent programme is to be developed across central, regional and local levels of government then some form of centralised response to implementation is required. This is now being recognised by governments across the globe. In the EU, for example, there are now over 14 specialised PFI units. Similar approaches have been adopted in North, Central and South America, in Asia, in Southern Africa and in Australia.

- 6.3 Such units are not simply public sector substitutes for financial or technical advisers. They act at the strategic as well as at the transactional level. They typically span a broad range of activities from policy formulation, programme and project conception, procurement management for individual projects and contractual support during negotiations. Increasingly, operational support to public sector contracting authorities is also becoming a feature (in the UK over 500 concessions are now well into their operational phases).
- 6.4 A PFI unit enables the public sector to marshal the wide range of skills to ensure the effective overall delivery of programmes and projects. In the UK, the PFI programme started to gain purchase only following the creation of a central PFI taskforce in the Ministry of Finance (called “HM Treasury Taskforce”). The Taskforce comprised personnel from the public and private sectors, with backgrounds in project delivery, procurement, commercial contracts, economics, finance and law, accompanied by policy experience and sector-specific know-how.
- 6.5 HM Treasury Taskforce’s skills were made available, free at the point of use, across the UK public sector, providing a specialist source of in-house PFI support to public bodies. This support did **not** replace the need for individual procuring authorities to engage specialist advisors to assist with their individual projects. Rather, it was introduced to improve the ability of the public sector to be an intelligent client, by ensuring that projects are well-prepared, that advisers are competent and well-managed, that the procurement is well run and that the negotiations with the private sector properly harness the government’s purchasing power, whilst remaining fair and reasonable for the private sector.
- 6.6 As the PFI programme developed in the UK (the programme now involves around 750 projects worth \$90bn, with 50 new projects procured each year), the implementation capability of HM Treasury Taskforce evolved into Partnerships UK (PUK). Seeking to create a more stable platform, capable of recruiting from the public and private sectors, PUK was established by HM Treasury in 2000 (see **Appendix 1** for more detail).
- 6.7 While PFI programmes in other countries might not be of the scale as the UK, it is important that the skills and processes required to support an effective programme are not underestimated. This raises the issue of how these skills and processes can be put together rapidly in countries with smaller programmes. One possible way of accelerating both the development of country-based skills and the delivery of public infrastructure is described in **Section 7** below, using health services and their associated infrastructure as the worked example.

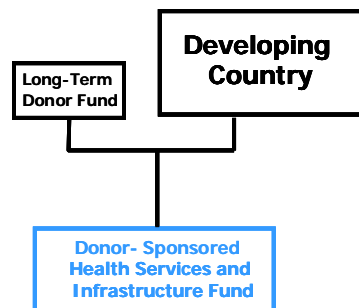
## **7. PFI and Investment in Health Infrastructure in Developing Countries**

- 7.1 Primary, community health and hospital services are, for the most part, unavoidably local. Their configuration is determined by first-order factors such as geography, topography and level of urbanisation. Second-order factors, such as sanitation, communications (including transport), the supply of clinicians (doctors, nurses and therapists) and the state of existing health services, also play key roles in determining the nature and scale of the demand for health services.



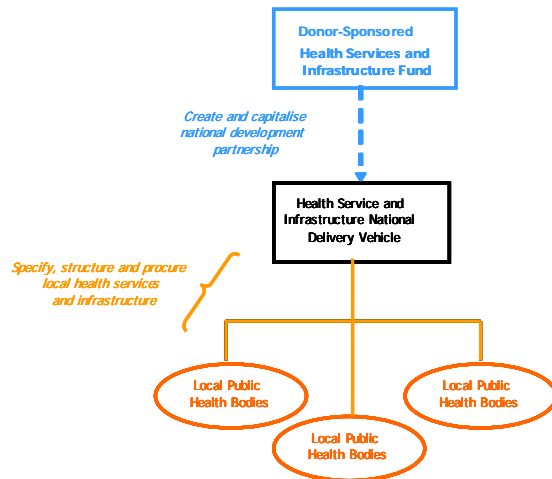
- 7.2 Any structure through which investment is to be channelled in a social service, such as health, will fail if it depends on putting in place a pre-configured service and/or infrastructure solution. This is as true in developed countries as it is elsewhere. Undoubtedly however, a significant amount of the investment and service management process can be standardised. A clear distinction can therefore, be drawn between an investment **superstructure** (which is highly standardisable) and an investment **sub-structure** (by which solutions are tailored to specific local circumstances).
- 7.3 The challenge is relatively easy to define – to implement effectively, efficiently and in a timely fashion a programme of long-term, output-based investments in infrastructure and services in primary, community health and hospital care into one or more developing countries. A key aim will be to put in place a sustainable service and infrastructure platform that is a) able to work smoothly with existing health systems and b) capable of surviving the eventual withdrawal of the involvement of private sector partners in the medium term by embedding self-sustainability (perhaps through recruitment, training and development of the indigenous workforce) into the fabric of the concession agreement.
- 7.4 At the national level, a developing country’s government might seek to create a formal development relationship with one or more donor funds able to commit a long-term funding stream to establish a sector fund (see **Figure 5**). This fund would be aimed at supporting investment, through long-term, output-based contracts, in the operation and infrastructure of the health services of that country.

**Figure 5 – Long-Term Donor Sector Fund**



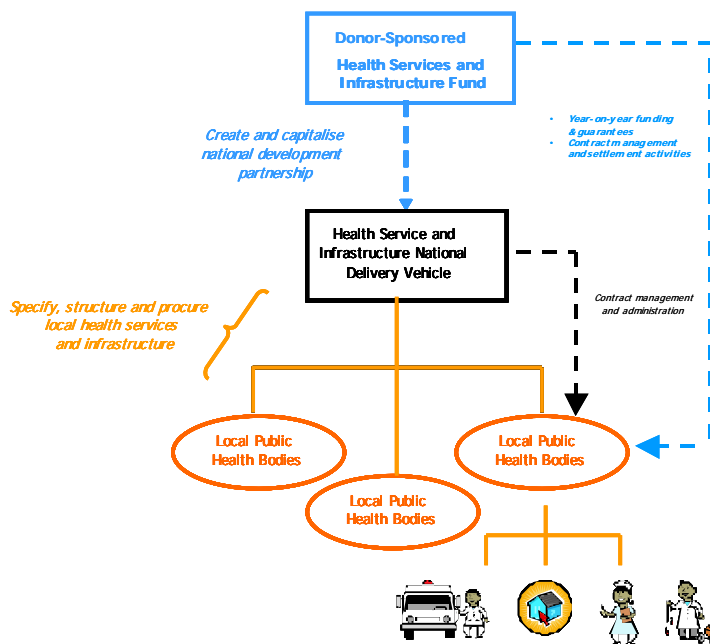
- 7.5 The donor-sponsored sector fund would be used to do two things. First, to create a centrally organised and professionally resourced delivery capability (a national delivery vehicle or “NDV”) to work with local public health bodies to specify, negotiate and deliver projects. Working alongside the governments and perhaps NGOs of developed countries, this donor-sponsored fund would identify and provide professional assistance and offer technical funding to finance both the NDV’s own resource requirements and training and developing locally-recruited resource.
- 7.6 In the example of health, the NDV would go on to support local health bodies at the sub-national level to plan, structure, implement and manage investment programmes in primary, community health and hospital services and their associated infrastructure. The local health bodies would be in a position to overlay local requirements onto nationally defined programmes and processes (see **Figure 6**).

**Figure 6 – Creating a Transaction Support Capability (NDV)**



7.7 Second, the donor-sponsored sector fund, acting separately to the NDV, could finance all or some of the year-on-year unitary charge consequences of the health services and associated infrastructure procured (see **Figure 7**). In doing this, the fund might also create capabilities that would allow it (or, perhaps more feasibly, the NDV) to assume some of the contract management obligations that fall to the public body in PFI-type contracts. These might include operational tasks such as measuring performance, determining the level of payment based on performance levels achieved through the operation of the PFI payment mechanism, settling month-on-month invoices, completing periodic market testing, managing variations to the contract and resolving any contractual disputes that may arise.

**Figure 7 – Funding the Unitary Charge Consequences of PFI Investment**



7.8 **Appendix 2** expands on the activities of the donor-sponsored sector fund and the associated NDV model illustrated above.

## **8. Conclusion**

- 8.1 The barriers to introducing a significant programme of investment in developing countries are real but by no means insurmountable. PFI-type approaches can be as relevant for social infrastructure as they have proved for telecommunications and energy.
- 8.2 The scope for combining approaches like PFI with new ways of committing long-term streams of donor funding is substantial. When set alongside the introduction of strong public sector transaction and contract management capability, real progress in the health, wealth and well-being of developing countries could be made.

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