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## HM Treasury

# Financing PFI projects in the credit crisis and the Treasury's response

# Summary

## Introduction

**1** Economic and social infrastructure forms the backbone of economic activity in the United Kingdom, and enables the delivery of public services across the country. The term infrastructure encompasses social and economic sectors such as communications, education, energy, health, transport, waste and water.

**2** In the five years to April 2010 approximately £30 billion per year was invested in UK infrastructure. Future investment is forecast in the range of £40-50 billion per annum until 2030. Investment is financed in a range of ways:

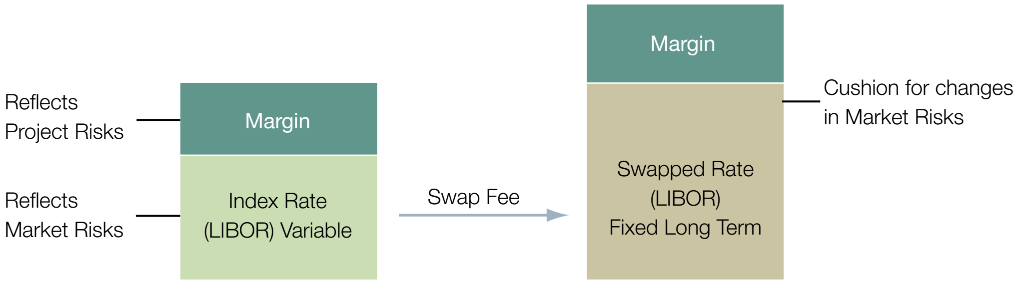
- Finance can be provided by private companies, but with some form of explicit public regulation or implicit public support. Examples include the water and energy sectors, which are largely privately owned and financed.
- Finance can be provided by public resources only, or for large one-off projects such as the Olympics, with a mixture of public and private resources.
- Finance can also be provided under the Private Finance Initiative (PFI) or other forms of Public Private Partnership (PPP). Sectors of economic and social infrastructure provided in this way include, for example, new hospitals and some roads.

**3** PFI projects are long-term contractual arrangements between public authorities and private sector companies with project financing raised by private companies. Project finance means that the financing is provided for a sole project, through a special company set up for the purpose. Departments generally conclude that the contract offers value for money when the benefits associated with the transfer of project risk outweigh any additional PFI financing cost.

**4** PFI projects typically use around 90 per cent debt finance and 10 per cent equity finance. The debt portion of this financing can be provided by bank loans and/or bonds. The banks and bond holders receive interest on their loans related to risks. Interest charged on a bank loan is usually a combination of two parts, the reference rate (usually the interbank rate) and the loan margin (**Figure 1**). The interbank rate reflects general market risks, while the loan margin reflects project specific risks. Variable rate bank loans are swapped to fixed rates to provide stable monthly payments over the project life.

**Figure 1**

This shows how a variable rate loan is converted to a fixed rate and the composition of loan interest costs




NOTES

1 LIBOR means the London Inter Bank Offered Rate (see Glossary) which is similar to base rate, but usually higher to reflect risk of bank failure.

2 A swap fee is payable to convert a variable rate loan to a fixed rate loan. Short-term rates can often exceed long-term rates during the life of a project.

*Source: National Audit Office*

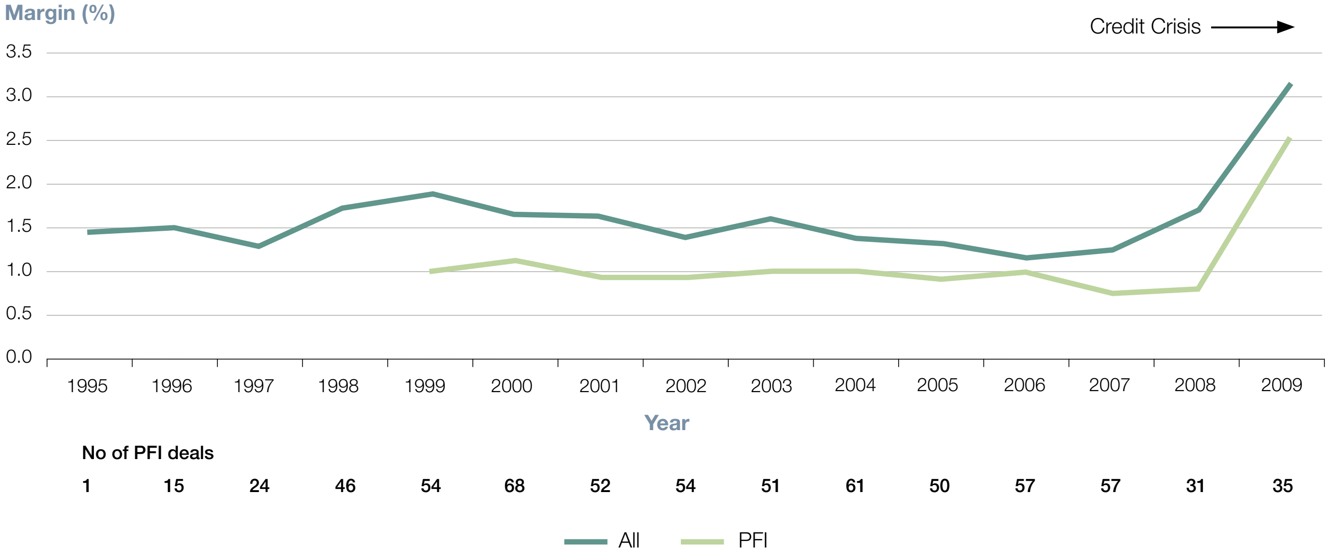
**5** Bond finance is where a loan is split up into many identical bonds which saving institutions can trade in public markets known as capital markets. Credit Rating Agencies analyse individual project and finance structure risks and publish a rating as a guide to investors. Before the credit crisis, the purchase of credit insurance could improve the rating of the bond, thus making the risks acceptable to non-specialised lenders such as pension funds.

**6** In late 2007, market confidence in the providers of this credit insurance collapsed, leaving PFI projects in the United Kingdom without access to capital markets.

**7** The bank loan market, however, continued to function. Banks can make loans while they have sufficient reserve capital (see Glossary) to allocate against them. To keep making new loans banks must free up reserve capital by selling existing loans, in whole or in part, to other banks or raise new capital. This process is known as syndication. The collapse of Lehman Brothers in September 2008 led to a halt in loan syndication, continuing throughout 2009. This limited the ability of banks to make new PFI loans.

**8** The equity finance is provided by a project's contractors and financial institutions. It typically comprises a mixture of shares and shareholder loans. Equity finance is known as risk capital because, generally, the equity will be lost first if the project company fails. The shareholder loans are higher risk as their repayment in a failure is junior to the external debt, known as senior debt, which is repaid first.

## Figure 2
Average international project finance loan margins compared to PFI




NOTES
1 The margins are averages based on monthly data.
2 Numbers in bold are the number of PFI projects financed in that year.

*Source: National Audit Office and project finance chart based on data from the Infrastructure Project Finance Benchmarking Report 1995-2009 further description at http://infrastructureeconomics.org/2010/02/09/project-finance-benchmarking-report/*

## Scope

**9** This report examines the effects of the credit crisis on privately financed government infrastructure projects and the Treasury's response. Although unable to control conditions in the financial markets, the Treasury sets guidance on how departments assess value for money and approves significant projects. It therefore was responsible for coordinating the Government's response to the financial crisis and mitigating its impact on infrastructure procurement. In particular, the report sets out:

- how the Treasury responded to the impact of the credit crisis on the **availability and terms** of finance for PFI contracts;
- the impact of the credit crisis on the **cost** of finance for PFI contracts; and
- the challenges ahead.

The report does not consider the value for money of individual projects, nor does it address the remit of Infrastructure UK, the new body established to coordinate the Government's approach to the infrastructure challenge. The report does, however, make recommendations on issues that Infrastructure UK should address.

## Key findings

### The Treasury's response to lower availability of finance

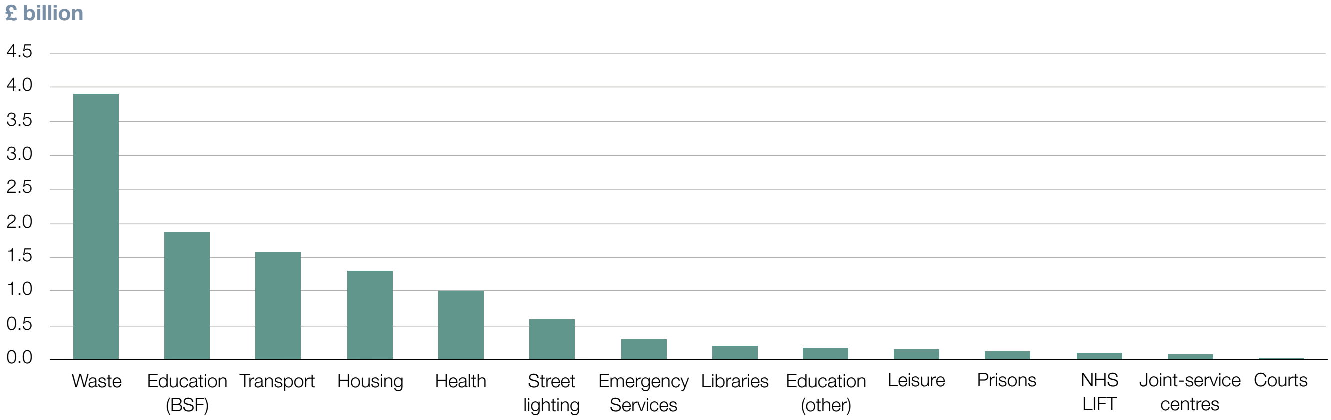
**10 The Treasury's role in establishing the PFI market contributed to reductions in the risk margin of private debt finance between 1999 and 2007.** Over this period, the establishment of the PFI market and the availability of bank finance lowered financing costs as bank competition increased. Departments took advantage by letting around 300 contracts with relatively low financing charges. The part of the interest cost relating to project risk, the PFI loan margin, averaged around one per cent, or less. These rates were lower than intern ational project loan margins which averaged 1.7 per cent from 1994 to 2008 (**Figure 2**).

**11 As the credit crisis took hold in autumn 2008, debt finance became increasingly unavailable.** As a result of market conditions, largely outside the Treasury's control, first bond finance, and then bank finance, became severely restricted. But as the UK economy entered recession, the Government had a significant pipeline of infrastructure projects, with an investment value exceeding £13 billion (**Figure 3**).

**Figure 3**

The investment value of UK infrastructure projects notified in the Official Journal of the European Union as at March 2009

**Capital value of pipeline by sector**




NOTES

1 Building Schools for the Future (BSF) is a secondary schools investment programme.

2 Local Improvement Finance Trusts (LIFT) finance primary medical care projects.

*Source: HM Treasury*

12 **The Treasury was concerned about the macroeconomic impact of the withdrawal of debt finance.** With debt finance increasingly unavailable, individual contracts became harder to finalise. The Treasury feared that, as a result of this potential slowdown in new PFI contracts, the opportunity to stimulate the economy through new infrastructure would be lost. In addition, important benefits, for example, improved school facilities and dealing with road congestion, depended on the completion of planned PFI projects.

13 **The Treasury therefore sought to maintain a flow of signed PFI contracts.** The overarching Government policy in late 2008 was that the pipeline of PFI deals should reach financial close promptly, to stimulate national and local economies, and create jobs. The Treasury followed this policy whilst continuing to apply standard PFI value for money tests.

14 **Bank lending was so restricted in late 2008 that, despite Treasury encouragement, no sizeable contracts could be let.** In September 2008, the Treasury asked the European Investment Bank to step up its lending to infrastructure projects which the Bank did. The Treasury, however, did not set PFI lending targets for UK banks when they received government support during that winter. The Treasury initiated internal discussions about such targets but did not pursue them because the banks concerned were a sub-set of the PFI lending market and because PFI lending was only a small part of the issues facing the Treasury in relation to its banking support. In early 2009, there continued to be insufficient bank debt for larger projects because banks did not resume lending as expected.

15 **The Treasury helped to reactivate the lending market for infrastructure projects by setting up its own finance unit.** In March 2009, the Government rapidly set up The Infrastructure Finance Unit to address the scarcity of debt finance. The unit's role was to be available to provide government loans to infrastructure projects, on commercial terms, so shortfalls in the amount of available bank finance could be met.

16 **In April 2009, The Infrastructure Finance Unit helped to finalise a large waste treatment and power generation project.** The unit provided a £120 million loan to complete a £582 million financing package for a waste treatment and power generation project in Greater Manchester. The Treasury's participation in this loan, on the same terms as commercial banks, is intended to be temporary and reversible.

17 **The Treasury's willingness to lend improved market confidence and subsequently around 35 government infrastructure projects have been agreed without any further public lending.** The Infrastructure Finance Unit has not made any further loans. But since its establishment, around 35 projects have been agreed. There is therefore some evidence that the unit improved market confidence. In addition, the availability of government loans provided some competitive tension to the banks in a market which, since 2008, had lacked competition on loan financing terms.

## The cost of finance

**18 We found that as a result of the credit crisis, the total interest cost of bank finance increased by one-fifth to one-third.** In the 35 projects agreed after the establishment of The Infrastructure Finance Unit, we found that the part of the cost relating to loan margins on PFI deals, which had been 1 per cent or less, widened significantly to around 2.5 per cent on average (**Figure 4**). Some, for example, the complex Greater Manchester Waste project, will rise to more than 3 per cent in stages over the project life. The increased loan margins resulted in substantial increases to the cost of finance (Figure 4).

**19 These increases occurred despite the fall in short-term borrowing rates and little change in the intrinsic risk profile of projects.** The fall in the underlying short-term bank lending rate (the base rate) to 0.5 per cent only had a slight impact on PFI deals. This is because the private sector fixes the interest cost on their long-term PFI borrowings. This fixed interest rate, currently around 4 per cent, reflects the risk of future changes in interest rates and is a market factor that is not specific to PFI.

**20 In line with policy on acting to stimulate the economy, the Treasury gave priority to closing deals at the prevailing market rates, even if this meant paying more and banks carrying less risk.** In addition to charging higher margins, the banks have sought to de-risk their lending to projects following the credit crisis. They renegotiated their lending terms with preferred bidders, through: lowering the proportion of debt in projects; increasing cover ratios (see Glossary); requiring the private sector to inject risk capital earlier; and placing more onerous conditions on when the private investors can withdraw cash from the project.

**Figure 4**
Comparison of interest costs on PFI projects

| | Standard Deals | | Large Deals | | |
|---|---|---|---|---|---|
| | Pre crisis | Post crisis | Pre crisis | Post crisis | |
| Key costs | Sample projects (2007) | School sample (2009) | FSTA (March 2008) | GMW (April 2009) | M25 (May 2009) |
| Level of project risk | Various | Low | High/medium | High | Medium |
| Interest rate margin (%) | 0.79 | 2.51 | 1-1.15 | 3.25-4.50 | 2.5-3.5 |
| Total interest cost (%) | 5.9 | 6.9 | 5.9-6.1 | 7.7-8.91 | 6.9-7.9 |
| Increase post crisis (minimum) (%) | – | +18 | – | +31 | +17 |

NOTES
1 The indicative level of project risk shown above illustrates the fact that the projects are not directly comparable. The change in interest margin percentages partly reflects this.
2 The Future Strategic Tanker Aircraft (FSTA) project raised funding of £2.5 billion. Greater Manchester Waste (GMW) borrowed £582 million.
3 The increase post crisis will rise with stepped increases in the interest rate margin if refinancing (see Glossary) does not take place.

*Source: KPMG and National Audit Office*

**21 Our analysis shows that the higher financing costs increased the annual charge of typical PFI projects by 6 to 7 per cent (Appendix Two).** Riskier PFI projects experienced a larger increase. For example, we estimate that the increase in the financing charges of the Greater Manchester Waste project added 12 per cent to its annual contract price (Figure 11 on page 25). To address this, in October 2008 the Treasury increased the public sector share of any future reductions in debt costs from 50 per cent to 70 per cent.

**22 We estimate that between £500 million and £1 billion of higher cost has been locked in, partly offset by the increased public sector share of refinancing gains.** The higher end of this range reflects the difference between current PFI bank rates and low rates prior to the credit crisis. Although departments can now press investors to refinance, any refinancing requires careful judgement and will depend on future market conditions. We doubt whether more than half of the current higher financing costs might be recovered.

**23 Higher financing costs eroded the value for money advantage that departments attribute to PFI.** Departments initially seek assurance on the value for money of PFI procurement by comparing alternative ways of providing the same results. Although we have often expressed concern about these calculations, the typical estimate of the PFI cost advantage lay in the range of 5 to 10 per cent (and some cases we have audited showed smaller savings). We estimate that financing rate changes increased the annual contract charge by around 6 to 7 per cent. This finding suggests an increased risk to value for money resulting from the credit crisis. Given the Government's policy objectives for stimulating the economy, we accept, however, that delays from resubmission of individual business cases might have put the policy at risk.

**24 Although the Treasury and departments took steps to assess the impact on the value for money of projects, there were limitations to their assessment.** Despite the higher financing costs the Treasury and departments considered that all 35 contracts let in 2009 continued to represent value for money. The Treasury relied on the normal review processes for PFI projects and a review by Partnerships UK of the expected effect of higher bank risk margins on a sample of projects. There were, however, limitations to this approach, as:

- although the Partnerships UK review, commissioned by the Treasury, was useful analysis, it did not cover all projects let or all aspects of financing costs. In addition, the Treasury monitored actual financing terms, but did not have a full analysis of the impact of the higher rates on the cost of projects that closed in 2009;
- some schools projects did not fully reassess their business cases, using out of date guidance which had said an updated quantitative analysis was only necessary if costs increased by 25 per cent; and
- the value for money assessments for the M25 and Greater Manchester Waste projects continued to rely on assumptions, from earlier business cases, that high savings in future whole life costs would not be available under conventional procurement.

## Challenges

25 **The Treasury, through Infrastructure UK, faces a number of challenges to identify the best funding models for projects now being developed.** The Treasury has formed Infrastructure UK to oversee infrastructure investment in the UK, including aspects of Government capital spending. It will face important challenges regarding the prioritisation of projects and procurement methods given the large deficit in the public finances and the increased cost of using private finance.

26 **There are alternative financing options to PFI.** Projects such as the Olympics and Crossrail have relied on, or will be using, a greater input of public money. There were other financing options, and although these would not have been likely to achieve the Government's policy objectives in 2009, they could be relevant in future:

- The French government guarantees 80 per cent of the debt, once a project is operating successfully, to reduce the use of bank risk capital and therefore financing costs. The disadvantage is that this approach is not a temporary or reversible intervention and retains some operating project risk for the public sector.
- The not-for-profit European Investment Bank (EIB) is generally able to make funding available on more favourable terms (such as margins and fees) than commercial banks. Some European countries have used public loans in a similar manner.

## Conclusion on value for money

27 We have assessed how the Treasury managed the risks to value for money, rather than examining individual projects. Departments' ability to finance the existing programme was in doubt until the Treasury set up The Infrastructure Finance Unit and reactivated the lending market. Our value for money conclusion relates to projects actually financed in 2009. However, we accompany that conclusion with a warning on value for money for subsequent projects.

28 **On projects financed in 2009:** It is our opinion that in the circumstances the extra finance costs of projects financed during 2009 were value for money. We take this view because the overarching policy priority to provide economic stimulus severely limited the scope for the Treasury to do more than they did to protect public value while ensuring that the programme of PFI projects was moved forward. In reaching this view we considered the fact that the financing margin being paid had widened significantly, and that banks renegotiated lending terms which resulted in an increased cost of risk for the public sector. We regard this as having been offset to some extent, and as far as was reasonably achievable in all the circumstances, by the increased refinancing gain share terms obtained by the Treasury.

**29** We also considered whether the PFI deals could have been required to submit individual revised business cases, which might have led to some of the least advantageous projects being postponed or discontinued with the effect of improving overall value for money. We concluded that this requirement would have imposed further delay that might have put the policy objectives at risk, and would not therefore be a reasonable yardstick to assess the protection of value for money in the programme. However, having concluded thus positively on projects financed at the height of the crisis, we would expect more exacting criteria to be applied subsequently.

**30** **On projects which have yet to be fully developed:** There should be no presumption, based on earlier business case analysis, that continuing the use of private finance at current rates will be value for money. We now expect a thorough project by project review of the forward programme to apply more exacting and narrower criteria than applied to projects financed at the height of the crisis. PFI is less likely to be value for money unless there are substantial and credible savings to offset higher financing costs. The Treasury's formation of Infrastructure UK gives a platform for wider consideration of risks, other funding options and alternative procurement models.

## Recommendations

### To the Treasury

**a** **Market disruption, causing a lower availability of finance, has interrupted the Government's infrastructure programme.** The Treasury should analyse the lessons from the past two years. It should use these lessons to prepare a contingency plan for how departments should handle future market disruption affecting procurement plans.

**b** **There is limited evidence that projects fundamentally re-evaluated their business cases in light of the credit crisis.** Where there are material changes, such as project costs increasing by 15 per cent, the Treasury should require that the department re-evaluate the project. This re-evaluation should assess all the benefits, and potential loss of benefits, of continuing the project in its current form, compared to other available options, including other forms of procurement.

**c** **Increased reliance on a single type of finance, with reduced competition, promotes inefficiency.** The Treasury should continue to consider how a greater mix of finance sources, with less emphasis on the use of commercial bank loans, can be used to finance infrastructure projects.

## To the Treasury and departments

**d** **Allowing individual projects to negotiate refinancing will lead to variable and overall sub-optimal outcomes.** The Treasury should adopt a portfolio approach to refinancing, with input from the relevant departmental team, so that individual authorities do not exercise any right to a refinancing on a piecemeal basis. During the operating phase of a number of projects, taking a portfolio approach will enhance the public sector bargaining position, reduce transaction costs and increase potential gains. The Treasury should also consider whether the returns to equity investors are aligned with the changed risk allocation in deals that has arisen following the credit crisis.

**e** **The increase in finance costs, including some reduction in risk borne by banks, makes PFI less likely to be a value for money solution.** In line with Treasury guidance, departments should not presume that a wholly privately financed project offers a solution likely to secure good value for money. During procurement, and in drafting notices for the Official Journal of the European Union, departments should assess a range of financing options, including all public finance or part public and part private finance.

**f** **The public sector gave greater priority to securing agreed contracts than to negotiating better outcomes.** In such situations, departments should nevertheless make greater use of sensitivity analysis to inform decision-making over negotiation on possible small changes in financing rates and on each request to take on additional project risk.