MINISTRY OF DEFENCE

MOD Private Finance Unit
Guidance Note
Allocation & Management of Risk in PFI projects

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MOD PFU Contacts

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DOCUMENT CHANGE RECORD

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Issue No	Details Of Amendments Made	Amended By	Date
2	Original DPA PFU Publication (Titled: Management of Risk in PFI Projects)	Simon Gadd	September 2001
3	Minor Update	R Haria	August 2008
4A	Major rewrite (first draft)	A Baker	March 2010
4B	Minor amendments to draft 4A	A Baker	May 2010

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Constraints

1. This guidance note applies to all members of the acquisition community involved in PFI projects. It supplements existing MOD policy and guidance on risk management. This guidance should be read in conjunction with the following policy and guidance:

(a) The EC Public Procurement Regulations apply to MOD contracts unless the nature of the work qualifies for an exemption. Reference must be made to the detailed policy and guidance on the mandatory procedures to be followed – available on the Acquisition Operating Framework (AOF),

(b) In addition HM Treasury mandates the use of standardised terms and conditions for PFI contracts. Therefore all PFI projects/programmes shall comply with HM Treasury's Standardisation of PFI Contracts version 4 ("SoPCv4") and the MOD Standard PFI Project Agreement version 1 (including subsequent Addendums) unless explicit authority to derogate from them has been obtained from HM Treasury[1] (via MOD PFU) and MOD PFU[2],

(c) The AOF policy and guidance on risk management (in the tactical layer of the AOF),

(d) HM Treasury Appraisal and Evaluation in Central Government "The Green Book" and JSP 507 MOD Guide to Appraisal and Evaluation, and

(e) Other relevant MOD PFU Guidance Notes.

Authoritative Guidance Summary

2. This guidance note provides advice to acquisition teams on the identification, allocation, analysis, treatment and management of risk in PFI projects. Users of this document should gain:

(a) a clear understanding of the importance of risk in PFI projects,

(b) an appreciation of the appropriate methods for the management of risks,

(c) an appreciation of current thinking and best practice for risk management of PFI projects, and

[1] For SoPC4 derogations.
[2] For MoD PAv1 derogations.

(d) an appreciation of a standard risk allocation matrix for a SoPC4 and MOD PAv1 compliant contract.

Authoritative Guidance

Background

3. The evolution of PFI/PPP over the past 18 years has modified the thinking and discussion around risk. The original debate on PFI was not really on risk, this only emerged as part of the early attempts to create deals. The operating lease approach and off balance sheet status were early attractions of PFI. With the introduction of FRS5 by the UK accounting profession, the early focus on risk was largely driven by an on/off balance sheet classification and not really an issue in its own right. It was only as early deals emerged did risk to the public sector begin to be debated properly.

4. Since accounting treatment of PFI deals under FRS5 was based on substance of the deal over form, the treatment of risk (i.e. seeing the deal in entirety) or rather allocation of risk, that became the guiding focus for early deals. This aligned well with the principles of project finance which focused on risks being allocated to the parties best able to manage and control them.

5. However, many instances in early deals of authorities pushing for more and more risk transfer often resulted in bidders agreeing to irrational deals and then subsequently 'correcting' the risk allocation in the Preferred Bidder phase resulting in extended procurement timescales.

6. The mantra of 'risks should be allocated to the parties best able to manage and control them' was widespread (and MOD policy) but often misunderstood, e.g. early attempts to transfer demand risk where demand control is owned by the MOD and not in the control of industry.

7. Understanding risk is also critical to the investment appraisal process which is a vehicle for applying some mathematical based justification for the selection of one form of deal (or risk allocation) over another. The big problem however is a woeful lack of historic data about actual costs and risks to delivery of defence capability. There is also a common theme that the more investigation is done into existing risks of delivery the larger the retained risk seems to become, i.e. the MOD is always far too optimistic about its estimates – and this was the reason for optimism bias being introduced into investment appraisals.

8. All too often in the public sector, when risks do materialise, the benefits are absorbed into current budgets and downsides are swept under the carpet. In the public sector we don't have equity at risk and therefore the same critical focus on risk as industry does. Detailed analysis of risk

throughout the project lifecycle and external scrutiny of it is therefore critical to address this inherent weakness in the public sector.

Overarching principles

9. Good risk management is at the heart of every successful PFI project and is evident during all phases of acquisition. However, the risk management tools and techniques used on PFI are no different to any other form of procurement. It is therefore essential all PFI projects must comply with MOD policy and guidance on risk management as detailed in the tactical layer of the AOF (under the heading Risk Management). All PFI projects shall also comply with the HM Treasury Appraisal and Evaluation in Central Government "The Green Book" and JSP 507 MOD Guide to Appraisal and Evaluation.

10. However risk management in PFI is a 'mindset' and approach to every day business not a software tool or management information process. It should not be viewed as 'in addition to the day job' – it is the day job. Every negotiation or discussion between MOD and industry should be based on trying to better understand risks and to manage them. A key role and indeed benefit of third party lenders to PFI projects is their need and ability to do detailed risk based due diligence to ensure all project risks are identified, analysed, allocated, mitigated, and managed.

11. Risks should be allocated on a value for money basis to the party best able to mange and cost risks on a through life basis. Note there is a tension here, as it is not always the case that where risks are best managed aligns with the party best able to cost them. MOD should not automatically seek to transfer risk to the contractor without making an informed value for money judgement. To make this judgement requires a thorough understanding of:

(a) the nature of the risks to the project,

(b) the way in which these risks affect the ability of the private sector to deliver the service,

(c) the degree of control that the private sector has of the risks,

(d) the cost to the public sector of managing the risk, and

(e) the way in which the private sector can manage these risks.

12. The risk allocation will also have an impact on the accounting treatment that will determine whether the project is on or off balance sheet. *(Note: Whilst value for money must always remain the key driver for a project, project managers should be aware that balance sheet treatment can*

have a significant effect on the affordability of a project to the Authority)

13. All PFI projects shall have a clear understanding of how risks are allocated between MOD and industry, and this strategy for risk allocation shall be developed during the earliest stages of the procurement and is essential before and during industry engagement to drive dialogue. Therefore all PFI projects shall complete a risk allocation matrix prior to any formal engagement with industry (i.e. issue of an OJEU notice) and keep this updated throughout the projects lifecycle. Projects already in procurement or signed/operational are encouraged to complete a risk allocation matrix to assist with risk management.

14. Establishing a risk allocation matrix is a fundamental requirement for an effective risk allocation and management process. The matrix provides a structure that ensures all areas of risk are considered and that risk is addressed consistently with industry. It also informs the projects risk register.

15. The matrix should list the key elements of commercial risk and indicate MOD's position with respect to risk ownership in each area (specifically whether the risk is owned by MOD or the Contractor). However, acquisition teams should avoid being lulled into thinking that a risk allocation matrix (or risk register) articulates a complete view of risk with industry. It doesn't as industry will have their own risk register to manage the risks they have been allocated. However, the risk matrix does provide a useful summary of the Contract which itself articulates risk allocation through its terms and conditions. Every clause in the contract will address risk of one sort or another and should therefore be captured (and mapped) in the risk allocation matrix and risk register.

16. Annex A contains a template risk allocation matrix for a standard SoPC4 and MOD PAv1 compliant deal. However, the allocation of risk will vary according to the specific circumstances of an individual project. There are a number of risks that are of particular importance within PFI contracts, e.g. construction, availability/performance, demand, design, financing, site risks, obsolescence, residual value, default, changes in specified costs, third party revenue, pass rate, macro economics, change in law, and credit risks. Further details of these risks can be found by following up the further reading and support outlines below.

17. Some care should be taken in establishing the key principles underpinning the risk allocation matrix as these will shape the viability of the various procurement options. Indeed, the acquisition team will also need to be understand the risk allocation of the alternative procurement options to PFI as part of the investment appraisal as PFI's are often criticised for failure to manage certain risks when in fact it was never the intention to transfer those risks to industry as they rest with MOD under all procurement options.

Common Problems and Pitfalls

18. *Double counting* - Care must be taken not to 'double count' for risks. Double counting can distort the investment appraisal decision by artificially inflating the PSC. For example some projects use a notional insurance charge as a first approximation of the value of a risk where more detailed data on the costs of risk is not available. Care must be taken in such circumstances, as a notional insurance charge would cover some risk that may have been valued explicitly elsewhere.

19. *Sensitivities* - Care should be taken to ensure that the risk model for the project has an appropriate level of detail and accuracy to support the investment appraisal process. It is possible for the risk model to be sensitive to the value or timing of a particular risk, which would suggest that further work is required to confirm the assumptions and data supporting that element of the risk analysis. It is highly recommended that the risk model is tested through sensitivity analysis to ensure that the model is robust to potential changes in probability or impact.

20. *Upside and Downside* - It is common for a project to be very focused on the potential negative effects of any risk. However it is important to note that there are potential positive benefits to many risks which should be taken into consideration.

21. *Operational Risk* - It is often said that ultimately the MOD always bears the consequences of risk, because if the contractor fails to deliver the service or the equipment fails, the armed forces are unable to do their job. This statement is true in relation to the operational impacts but it is important not to forget the effects of project risk by focusing solely on the operational risk. The MOD always owns the operational risk, that is it always bears the operational impact if a capability is not available when required. The MOD chooses to manage this risk by procuring effective equipment and services through appropriate commercial strategies. It is very important therefore, when considering alternative procurement strategies and when considering bidders' proposals, to take account of the operational impacts of each proposal. The risk that the contractor will fail in service delivery is a project risk. Although there is a related operational risk, in managing the project it is important to address the project specific issues: who bears the cost of recovery, what are the mitigation strategies to restore service delivery etc; whilst having in mind the best outcome for operational commanders.

22. *Re-circulation of Risk* - Re-circulation of risk describes a situation where a risk that the Authority has transferred to the contractor is transferred back to the Authority by some other means. In such circumstances the Authority can end up paying for the management of the risk and finding itself responsible for the consequences of the risk. Re-circulation of risk can occur for a number of reasons but commonly arises due to obligations passed back to the Authority in relation to essential Government Furnished Equipment or Services, or services or equipment subcontracted to another Government

or MOD Agency. Care should be taken to avoid the re-circulation of risk, and if this does occur the relevant risk must be treated as a retained risk within the investment appraisal, and the cost of risk added on to the contractor's price.

23. *Historic data* – Risk analysis relies heavily on the use of historic data. A lack of robust data for project teams to specify their requirements and the risks being transferred to contractors has been an issue for a number of the case studies examined. Project teams should ensure that the initial planning stage of each project includes the production of suitable data on any existing use of the required service, forecast usage and the condition of assets being transferred to the private sector.

Further Help and Support

24. Please contact the MOD PFU for all further help and support. Further reading on the subject of risk management in PFI can be found at:

- Public-Private Partnerships Principles of Policy & Finance by E. R. Yescombe
- PPP Bulletin article (City & Financial Publishing, by L Monnier and Dr T Stone) 2005

ANNEX A

TEMPLATE PFI RISK ALLOCATION MATRIX

GENERIC RISK PROFILE SUMMARY

(Indicative list of risks based on HMT Orange Book and profile based on generic SoPC4 PFI position)

Ser	Risk Title	Risk Description	MoD	Shared	Bidder	Remarks
External						
	Political	Change of government, cross cutting policy decisions, machinery of government changes	●			
	Economic	Inflation between bid receipt & Contract award			●	
		Inflation after Contract award		●		
		Interest Rates prior to Contract award	●			
		Interest Rates post Contract award			●	
		Changes in Business rates/tax		●		
		Changes in Taxation (excl VAT)			●	
		Changes in VAT		●		
		Changes in Utility costs (eg gas/water/sewage/electricity)		●		
	Socio cultural			●		
	Technological				●	
	Legal/regulatory	Regulatory		●		
		Obtaining Planning permission			●	
		Satisfy planning conditions and highways works (section 278/106 agreements)		●		
		Statutory consents			●	
		Compliance with Legislation (incl H&S)		●		
	Environmental	Environmental liabilities/risks		●		
		Finds at Authority Sites	●			
		Ground conditions at Authority Sites		●		
		Contamination at Authority Sites		●		
Operational						

Ser	Risk Title	Risk Description	MoD	Shared	Bidder	Remarks
	Failure to accurately specify/capture a clear requirement		●			
	Inadequate Contractors Proposals/method statements				●	
	Construction risk				●	
	Maintenance risk				●	
	Replacement/renewal risk				●	
	Wear & tear (over utilisation of asset)				●	
	Delay in getting access to Site		●			
	Latent defects (of new assets)				●	
	Condition of Authority Sites - Latent defects			●		
	Condition of Authority Sites - Patent defects				●	
	Interface with existing MoD activities			●		
	Acceptance/demonstration (eg IC appointment/certification)			●		
	Demand risk		●			
	Third Party Revenue			●		
	Design & development				●	
	Integration risk (of assets, hard fm, soft fm, & services eg training)				●	
	Failure to deliver services - Performance standards (ie Poor performance)				●	
	Failure to deliver assets – Availability standards (ie build to design or on time)				●	
	Poor performance monitoring and management regime/mechanism			●		
	Construction costs				●	
	Operating costs				●	
	Benchmarked/Market Tested costs (at agreed points)			●		
	Residual value		●			
	Poor configuration control				●	
	Poor condition of buildings being transferred				●	

Ser	Risk Title	Risk Description	MoD	Shared	Bidder	Remarks
	Provision of GFA		●			
	Provision of Existing Assets		●			
	Disposal of surplus Existing Assets			●		
	Condition of assets on expiry/termination				●	
	Authority damage to assets (eg barrack damage, misuse, vandalism, theft, accidental damage)			●		
	Existing Contracts (aligning/terminating)		●			
	TUPE transfer of Authority Employees			●		
	TUPE transfer of 3rd Party Employees				●	
	Employee risk (costs/redundancy etc)				●	
	Contractor and Sub-contractor resource availability				●	
	Financing				●	
	IPR			●		
	Visibility/granularity of baseline costs for pricing change			●		
	Measures in a Crisis		●			
	Contractor Default				●	
	Authority Default		●			
	Authority Voluntary Termination		●			
	Relief Event			●		
	Compensation Event		●			
	Force Majeure			●		
	Security compliance & Disclosure of Secret Matters				●	
	Financial robustness of Consortia/Contractor				●	
	Contractor warranties & undertakings				●	
	Change of Contractor/SPV ownership				●	
	Authority disclosed data				●	
	Refinancing			●		
	Contractor's on Deployed Operations (CONDO) and Sponsored Reserves			●		
	Contractor's Indemnities				●	

Ser	Risk Title	Risk Description	MoD	Shared	Bidder	Remarks
	Insurance			●		
	Uninsurability		●			
	Military Ethos			●		
	Interest in Land		●			
	Spanning works			●		
	User satisfaction				●	
	Relationships between MoD/Contractor			●		
	MoD resources & skills (practical commercial/financial experience in teams)		●			
	Effective Governance		●			
	Appropriate MoD leadership and engagement at senior levels		●			
	Market (number of contractors and level of interest)			●		
	Contractor/bidder track record – are they credible (partnering behaviours)		●			
	Value for money			●		
Change						
	Change of requirement and/or solution	Authority initiated Change not necessary to comply with Change in Law (capex/opex cost increases)	●			
		Contractor initiated Change not necessary to comply with Change in Law (capex/opex cost increases)			●	
		Authority/Contractor initiated Change not necessary to comply with Change in Law (capex/opex cost decreases)		●		
	Qualifying/Discriminatory Change in Law	Change necessary to comply with Qualifying/Discriminatory Change in Law (capex/opex cost increases)	●			
		Change necessary to comply with Qualifying/Discriminatory Change in Law (capex/opex cost decreases)		●		
	General Change in Law	Change necessary to comply with General Change in Law [*before service commencement date*] (capex/opex cost increases)			●	

Ser	Risk Title	Risk Description	MoD	Shared	Bidder	Remarks
		Change necessary to comply with General Change in Law [*before service commencement date*] (capex/opex cost decreases)		●		
		Change necessary to comply with General Change in Law [*post service commencement date*] (opex cost increases)			●	
		Change necessary to comply with General Change in Law [*post service commencement date*] (opex cost decreases)		●		
		Change necessary to comply with General Change in Law [*post service commencement date*] (capex cost increases/decreases)		●		