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Rochdale Joint Service Centre

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PFI Value for Money Quantitative Assessment

Input and Assumptions Sheet

Note: As laid out in "Value for Money Assessment Guidance" p. 28, procuring authorities should provide a table listing the assumptions behind each of the inputs. This table can be used as a template for this.

Input	Values	Assumptions & Rationale	Source										
Timings Contract period (years) Initial CapEx period (years) Year when OpEx is first incurred (years)	27 2 2	As per LIFTCo model As per LIFTCo model. Scheme to become operational year after construction	LIFTCo model LIFTCo model LIFTCo model										
Escalators CapEx escalator OpEx (non employment) escalator OpEx (employment) escalator Unitary charge escalator	<table border="1"> <thead> <tr> <th>Rates</th> <th>Base Year</th> </tr> </thead> <tbody> <tr> <td>0.0%</td> <td>1</td> </tr> <tr> <td>2.5%</td> <td>1</td> </tr> <tr> <td>2.5%</td> <td>1</td> </tr> <tr> <td>100%</td> <td>1</td> </tr> </tbody> </table>	Rates	Base Year	0.0%	1	2.5%	1	2.5%	1	100%	1	CapEx at Cell F31 includes inflation As per LIFTCo model As per LIFTCo model As per LIFTCo model As per LIFTCo model	LIFTCo model LIFTCo model LIFTCo model LIFTCo model
Rates	Base Year												
0.0%	1												
2.5%	1												
2.5%	1												
100%	1												
COSTS AND REVENUES Whole Life Costs PSC Initial CapEx (£'000) Lifecycle costs at each LC date (£'000) Lifecycle intervals (yrs) OpEx (non employment)(p.a.) (£'000) OpEx (employment per person) (p.a.) (£'000) OpEx (employee number)	14,530 160 1 191 0 0	Calculated by taking figure from LIFTCo model (F31) reducing by assumed risk premium of 10%, then increasing by £1,283k to reflect beneficial impact of Residual Value not assumed 90% of LIFTCo model figure (F32) to reflect assumed risk premium Lifecycle costs incurred annually 90% of LIFTCo model figure (F33) to reflect assumed risk premium N/A N/A	LIFTCo model LIFTCo model LIFTCo model LIFTCo model LIFTCo model LIFTCo model										
PFI Initial CapEx (£'000) Lifecycle costs at each LC date (£'000) OpEx (non employment)(p.a.) (£'000) OpEx (employee number)	14,718 178 212 0	As per LIFTCo model Annual figure as per LIFTCo model As per LIFTCo model N/A	LIFTCo model LIFTCo model LIFTCo model										
Transaction Costs PSC PFI	436 750	In line with latest guidance Minimum level agreed as reasonable with RMBC	Treasury Quantitative Assessment User Guide - March Treasury Guidance / RMBC										
Third Party Income PSC PFI	0 0	No significant 3rd party income expected As above											

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Input	Values		Assumptions & Rationale	Source
	Optimism bias pre-FBC	Optimism bias post-FBC		
OPTIMISM BIAS				
Whole Life Costs				
Initial CapEx	11%	17%	Pre FBC figure - In line with relevant Optimism Bias pro-formas as completed by RMBC. Product of Optimism Bias Upper Bound calculation - (21%) and the Mitigating Factor calculation (51%). Post FBC figure is Pre FBC inflated by factor of 15% in line with Treasury Guidance	Optimism Bias proforma as completed by RMBC
Lifecycle costs at each LC date	11%	17%	See above	Optimism Bias proforma as completed by RMBC
OpEx	11%	17%	See above	Optimism Bias proforma as completed by RMBC
Transaction Costs (PSC option)	11%	17%	See above	Optimism Bias proforma as completed by RMBC
Third Party Income (PSC option)	0%	0%	N/A	
Flexibility				
Scope change year		12.5	Mid Operating Period	Treasury Guidance
Probability factor (%)		50%	Consistent with default values	Model default value
Level of scope change (%)		50%	Consistent with default values	Model default value
Premium Flexibility Factor (PFI option)		5%	Consistent with default values	Model default value
Indirect Vfm Factors				
PSC Amount NPV (£000s)		0	None included	
PFI Amount NPV (£000s)		0	None included	
Tax				
PSC adjustment factor (%)		12%	Calculated in line with KPMG guidance and 2007 budgetary changes.	KPMG Guidance
PFI Funding				
Gearing (%)		88%	As per LIFTCo model	LIFTCo model
Sterling swap rate (%)		4.67%	Financial Times - Nov 08	LIFTCo model
Credit spread (bps)		15	As per LIFTCo model	LIFTCo model
Bank margin (bps)		107	As per LIFTCo model	LIFTCo model
Unitary Charge				

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Note: As laid out in "Value for Money Assessment Guidance" p. 28, procuring authorities should provide a table listing the assumptions behind each of the inputs. This table can be used as a template for this.

Input	Values	Assumptions & Rationale	Source
Initial CapEx period payment	0% N/A		LIFTCo model

PFI Value for Money Quantitative Assessment

Input sheet
See User Guide Section pp. 6-9, 16-36

General	(Yrs)	Rates - Escalators & Discount	Rates (%)	Base Year
Timings				
Contract period	27	CapEx escalator	0.0%	1
Initial CapEx period	2	OpEx (non employment) escalator	2.5%	1
Year when OpEx is first incurred	2	OpEx (employment) escalator	2.5%	1
		Unitary charge escalator	100%	1
		Real discount rate	3.5%	NA

Costs	PSC	OB Pre (%)	OB Post (%)	PFI	OB Pre (%)
Whole Life					
Initial CapEx (£'000)	14,530	11%	17%	14,718	10%
Lifecycle costs at each LC date (£'000)	160	11%	17%	178	11%
Lifecycle intervals (yrs)	1	NA	NA	1	NA
OpEx (non employment)(p.a.) (£'000)	191	11%	17%	212	11%
OpEx (employment per person) (p.a.) (£'000)	0	NA	NA	0	NA
OpEx (employee number)	0	NA	NA	0	NA
Transaction					
Public sector (£'000)	436	11%	17%	750	11%
Private sector (£'000)	0	0%	0%	221	0%

Third Party Income	PSC	OB Pre (%)	OB Post (%)	PFI	OB Pre (%)
Income (p.a.) (£'000)	0	0%	0%	0	0%

Flexibility	PSC	PFI
Scope change year	12.5	12.5
Probability factor (%)	50%	50%
Level of scope change (%)	50%	50%
Premium flexibility factor (%)	0	5%

Indirect VFM Factors	PSC	PFI
Amount (Npv)(£'000)	0	0

Tax	PSC	PFI
PSC adjustment factor (%)	12%	NA

Lifecycle Related Adjustments	PSC	PFI
Lifecycle / residual cost benchmark		50%
PSC lifecycle VFM adjustment if lower than benchmark		40%
PSC lifecycle VFM adjustment if higher than benchmark		40%
PSC residual cost factor if lower than benchmark		70%
PSC residual cost factor if higher than benchmark		35%

PFI Funding	88%
Gearing (%)	4.67%
Sterling swap rate (%)	15
Credit spread (bps)	107
Bank margin (bps)	2
Tail for bank debt (yrs)	50
Commitment fee (bps)	90
Upfront fee (bps)	1
Grace period (yrs)	

Unitary Charge	0%
Initial CapEx period payment (%)	

Pre Tax IRR Targets	18%
High	15%
Medium	13%
Low	

- Basis Points
- Capital Expenditure
- Lifecycle Costs
- Not Applicable - **no input required**
- Pre-FBC Optimism Bias
- Post-FBC Optimism Bias (for PSC only)
- Operational Expenditure
- Public Sector Comparator (i.e. conventional procurement)
- Input required (can link from previous sheet)
- Hard-wired Assumption - **no input required**

- bps
- CapEx
- LC
- NA
- OB Pre
- OB Post
- OpEx
- PSC

PFI Value for Money Quantitative Assessment

Output sheet - Indifference points (see "Quantitative Assessment User Guide" pp 10-15)

Output Box		
Scenario name IRR		
Pre Tax Equity IRR		15.00%
Pre Tax Project IRR		8.10%
VM		
"Indicative" PFI VM		5.70%
Indifference Points (IP)		
PSC		
Initial CapEx		0%
OpEx (Non Employment)		0%
OpEx (Employment)		0%
Transaction Costs		0%
PFI		
Unitary Charge		0%
Other Values		
PSC Costs (NPV)		-27 633
PFI Costs (NPV)		-28 059
Unadjusted Annual Unitary Charge		1 670

Switches
IRR

Explanations

The "Indicative" PFI VM value is determined by selecting the target IRR switch which corresponds closest to the PFI Contractor's expected return.

Running an Indifference Point switch gives the percentage increase/decrease in the variable required to give the point of indifference between the two procurement options.

In the event that #DIV/0!s, #NUM!s or other error messages appear in the Output Box, having updated the relevant inputs, the stabiliser switch should be used to clear the errors.

The Output Box results may be recorded in the separate "Output-Stacked Scenarios" spreadsheet by clicking the Stash Scenarios switch.

The Print switch enables the user to print the outputs to the left of the switches.

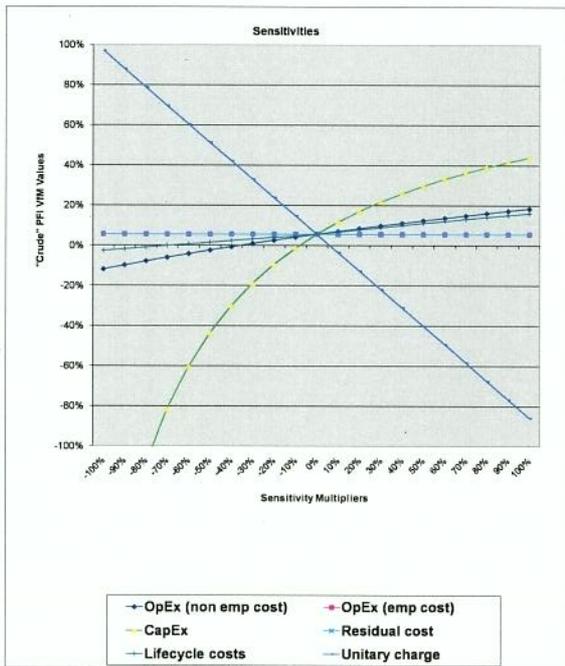
PSC Sensitivity Multipliers	
CapEx (%)	0%
Lifecycle (%)	0%
OpEx (non employment) (%)	0%
OpEx (employment) (%)	0%
Transaction (%)	0%
Residual cost (%)	0%
Third party income (%)	0%

Check	
Senior Debt Fully Repaid?	TRUE
Pre Tax IRR = Target?	TRUE
Total Cashflows = Zero?	TRUE

Indifference Points (IP)

Scenario No	##
Unitary Charge Balancer (£/m)	##
Default UC Factor	##

N/A	Not applicable
##	Inputs for running sensitivities
##	No input required
##	Default value of 30%



"Indicative" PFI VM Sensitivity Values

Multiplier	OpEx (Non Employment)	OpEx (Employment)	CapEx	Residual Cost	Unitary Charge	Lifecycle Cost
-100%	-11.8%	5.7%	-201.0%	5.7%	97.2%	-2.6%
-90%	-9.8%	5.7%	-146.9%	5.7%	88.0%	-1.8%
-80%	-7.8%	5.7%	-109.3%	5.7%	78.9%	-0.9%
-70%	-5.9%	5.7%	-81.6%	5.7%	69.7%	0.0%
-60%	-4.1%	5.7%	-60.4%	5.7%	60.6%	0.8%
-50%	-2.3%	5.7%	-43.6%	5.7%	51.4%	1.6%
-40%	-0.6%	5.7%	-30.0%	5.7%	42.3%	2.4%
-30%	1.0%	5.7%	-18.8%	5.7%	33.1%	3.2%
-20%	2.6%	5.7%	-9.3%	5.7%	24.0%	4.0%
-10%	4.2%	5.7%	-1.3%	5.7%	14.8%	4.8%
0%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%
10%	7.2%	5.7%	11.8%	5.7%	-3.4%	6.9%
20%	8.6%	5.7%	17.1%	5.7%	-12.6%	8.0%
30%	9.9%	5.7%	21.8%	5.7%	-21.7%	9.1%
40%	11.3%	5.7%	26.0%	5.7%	-30.9%	10.2%
50%	12.6%	5.7%	29.8%	5.7%	-40.0%	11.2%
60%	13.8%	5.7%	33.2%	5.7%	-49.2%	12.2%
70%	15.0%	5.7%	36.3%	5.7%	-58.3%	13.2%
80%	16.2%	5.7%	39.1%	5.7%	-67.5%	14.2%
90%	17.4%	5.7%	41.7%	5.7%	-76.6%	15.2%
100%	18.5%	5.7%	44.1%	5.7%	-85.8%	16.1%

The chart shows the impact on the "Indicative" PFI VM Value of inflating and deflating the relevant tabulated PSC cost variable and the Unitary Charge by different multiplier values, varying from -100% to 100%.

(i) Where the x axis (corresponding to a zero VM Value) is traversed, the point of indifference between the two procurement options has been reached.

(ii) Various hard-wired lifecycle related assumptions, (i.e.) in connection with the Residual Cost and the VM Adjustment factor, will result in adjustments only in the event that pre-determined benchmarks are reached. Since such adjustments are "stepped", rather than gradual, it is likely that the lifecycle cost line will be skewed.

For further information, please refer to section <> of the User Guide.