

# ACCOUNTING FOR PFI UNDER IFRS

## MODEL USER MANUAL AND WORKED EXAMPLES

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## Section 1: Introduction & Background

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The section explains the purpose of the User Manual.

## Purpose and Background

### What does this User Manual cover?

1. This User Manual explains how to input details for a PFI scheme into the Universal Model. This will enable practitioners to derive the impact of a PFI scheme coming onto their balance sheet. The User Manual also explains the mechanics of the Universal Model.
2. The User Manual does not explain the accounting principles for PFI schemes. Practitioners will need to refer to the PFI Accounting Guidance Manual (references to which are included within the text of the User Manual).
3. The key sections of this User Manual that all practitioners should consider are those describing the inputs to the Universal Model and those describing the “Controls” tab. Practitioners must make the inputs into the Universal Model correctly to ensure that appropriate outputs result.
4. The sections of this User Manual describing the elements of the Universal Model concerned with “Workings” and “Accounting Calculations” will be of particular interest to those practitioners who wish to understand how the Model works. However, it is recommended that all practitioners read these sections, as they explain how the inputs to the Universal Model are converted into accounting entries.

### Who should read this User Manual?

5. This guidance is relevant for:
  - Finance staff at NHS Trusts, PCTs and SHAs who are responsible for preparing financial statements.

### What are the key objectives of this User Manual?

6. To summarise, the aims and objectives of this User Manual are principally to:
  - Enable NHS bodies to use the Universal Model to derive the figures that will form the basis of the accounting entries required to bring PFI schemes onto their balance sheets;
  - Explain how the Universal Model works; and,
  - Enable NHS bodies to use the Universal Model to estimate the financial impact of bringing a PFI scheme on balance sheet (over the entire life of the scheme).
7. Finance staff at NHS Trusts, PCTs and SHAs that have PFI schemes accounted for as on balance sheet should use this User Manual, in conjunction with the Universal Model, to assist them to account for their schemes appropriately.

### Will this User Manual mean more work and more cost for NHS bodies?

8. Accounting for PFI schemes as on balance sheet is complex. NHS Trusts, PCTs and SHAs who are required to account for such schemes will need to plan additional time for their IFRS conversion process.
9. This User Manual and the Universal Model have been designed to minimise the effort and cost the NHS will incur in calculating the entries for PFI schemes found to be on balance sheet.
10. The User Manual and the Universal Model will also ensure that a consistent approach to accounting for PFI schemes is applied.

# Section 1: Introduction & Background

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## Key Contacts

### Who do I need to talk to and when?

11. Whilst all efforts have been made to make the Universal Model accessible to all users, additional external support may be required.
12. Any queries about the content of the manual and worked examples may be raised with the Department of Health Private Finance Unit who can be contacted on 0113 254 5533.

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## Section 2: Using the Universal Model

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### 2.1 Structure of the Universal Model

13. This section sets out the how the Universal Model is structured.
14. This User Manual refers to the “Operator’s Financial Model”. This will in most cases be the financial model that the PFI Project operator issues when the project reaches financial close. If this model is not available, either because the project has not yet reached financial close or because it has not been retained, Practitioners will need to agree an alternative basis for the source inputs. Practitioners will need to use the Operator’s Financial Model to derive the inputs necessary to make the Universal Model work. In addition to the Operator’s Financial Model, NHS bodies will need to refer to the following where this is available:
  - Actual unitary charge payments made since assets became operational;
  - Details of any contract variations agreed since financial close and how these were paid for;
  - Carrying values of any existing assets included in the Project Scenario; and
  - Amounts and timing of any capital contributions made to the Operator prior to any unitary charge payments being made.
  - Asset valuations obtained since construction was completed and their timing.
15. The version of the Operator’s Financial Model that practitioners should use is the version of the Model as at the Financial Close of the PFI scheme. However, modifications arising from any contract variations as referred to above should be incorporated as required. If any variation to the contract (for example a refinancing) results in the generation of a new version of the Operator’s Financial Model, this should replace the version agreed at financial close.

### “Global Inputs”, “Operator Model Inputs” and “Asset Inputs”

16. Three separate tabs receive the inputs necessary to run the Universal Model. These are described under “Inputs” below.
17. The “Global Inputs” tab includes inputs for assumptions that apply for the whole of the term of the scheme.
18. The “Operator Model Inputs” tab holds all the necessary information extracted from the Operator’s Financial Model.
19. The “Asset Inputs” tab holds all information relating to the timing and amounts of asset carrying values, useful economic lives and other depreciation assumptions.
20. Some Trusts have more than one PFI scheme. For this reason, the “Inputs” tab allows Trusts to input details for up to five PFI schemes.
21. The Universal Model assumes that all values are calculated every six months in the Operator’s Financial Model (‘semi-annually’). Where this is not the case, practitioners should consult the DH PFI Team for guidance on how the Universal Model can be amended to reflect this change.

### “Controls”

22. The “Controls” tab includes two buttons that should be pressed when all of the inputs have been made into the “Inputs” tab. This will ensure that the Universal Model generates appropriate accounting entries, providing practitioners have made the correct inputs into the “Inputs” tab.
23. The “Goal seeks – pre refi” button is pressed when all inputs applicable prior to any refinancing are input, or if the PFI project has not been refinanced. If the project has been refinanced, the model should be populated and run as described under “The “Controls” Tab” (see from paragraph 59 below). This sequence must be followed, otherwise the model results will not be stable.

### **“Workings”**

24. The “Workings” tab derives entries from the “Inputs” tab. These entries are ordered into a logical format to enable the derivation of property management costs (see paragraphs 73 to 89 below) and contingent rents.

### **“Accounting Calculations”**

25. The “Accounting Calculations” tab derives entries from the “Workings” tab. These entries are ordered into a format that mirrors the presentation of an on balance sheet PFI scheme in a set of Trust accounts.

### **“Semi Annual Statements” and “Annual Statements”**

26. The “Semi Annual Statements” tab shows the impact of the scheme whose scenario has been run in the Universal Model on the NHS body’s income statement and balance sheet. The figures are calculated semi-annually.
27. The “Annual Statements” tab shows the annual impact of the scheme on the NHS body’s accounting statements.

### **“Cash Allocations” and “Interest Rates”**

28. These tabs hold graphs showing respectively how unitary charge cash flows are allocated between accounting elements as described in the PFI Accounting Guidance, and the profile of financing rates excluding and including contingent rentals.



## Section 2: Using the Universal Model

### 2.2 This section sets out the how the “Global Inputs” tab is structured

29. The “Global Inputs” tab allows Trusts to input date and time assumptions applying for the whole concession period for up to five PFI schemes.
30. **It is important that practitioners input the correct details onto this tab, as the integrity of the outputs of the Universal Model is wholly dependent on the accuracy and completeness of inputs.**

#### Inputting more than one PFI Project

31. Cell B4 represents the Project Scenario to be analysed in the Universal Model. By inputting a number between 1 and 5 in this cell, the Universal Model will update itself to generate figures in the “Depreciation Calcs”, “Workings” and “Accounting Calculations” tabs for the PFI scheme relevant to that scenario. Each scenario is independent of the others i.e. the Universal Model does not aggregate any of the scenarios to one another.
32. Cells A7 to A11 allow practitioners to input the name of the PFI scheme relevant to each scenario, while cells B7 to B11 hold the scenario numbers.

#### Determining the profile for Residual Interest

33. Cell B13 determines which scenario the Universal Model will derive for the residual interest for the comparison with off balance sheet accounting in the “Accounting Calculations” tabs. This calculation reflects the prepayment for the asset at the end of the scheme if handed to the grantor for a nil or other fixed amount as described in the relevant UK GAAP-based accounting guidance.
34. A “1” should be input into this cell for the straight line method. A “2” should be input into this cell for the accumulating balance. DH

guidance states clearly that the straight line method should not be applied. However, it is possible that NHS bodies may have applied the straight line method prior to this guidance being published and not retrospectively changed this treatment.

#### Location of inputs for each PFI Project

35. The inputs for each Project Scenario are added to Cells D17 to H51, each column applying to each Project Scenario as follows:
  - Project Scenario 1 – Column D
  - Project Scenario 2 – Column E
  - Project Scenario 3 – Column F
  - Project Scenario 4 – Column G
  - Project Scenario 5 – Column H
36. The table below details the inputs required for this tab.

## Section 2: Using the Universal Model

Cell / Row	Explanation of what must be included in the cell	Where this information might be found from the Operator's Financial Model (or other information source)
<i>Date and time inputs</i>		
D17:H17 – Operator model inflation base date	The date from which inflation is calculated in the Operator's Financial Model	This date is normally indicated on a summary tab at the beginning of the Operator's Financial Model. Usually inflation will be 2.5% per annum though other values are sometimes assumed.
D18:H18 – First semi annual period end	The end date of the first six monthly period in the Universal Model	This date should end at the semi annual period following the inflation base date in F17:J17. The month should be either September or March.
D19:H19 – Construction start	The date on which construction of the PFI scheme began in the Operator's Financial Model	This date is normally indicated on a summary tab at the beginning of the Operator's Financial Model.
D20:H20 – End of construction	The date on which construction of the PFI scheme ended in the Operator's Financial Model	This date is normally indicated on a summary tab at the beginning of the Operator's Financial Model. This date and the previous date should encompass the entire continuous construction phase of the project.

D21:H21 – Services start date	The date on which the Trust starts to make unitary charge payments to the Operator	<p>This date is normally indicated on a summary tab at the beginning of the Operator's Financial Model.</p> <p>Practitioners may wish to check that the date the Trust actually started to make Unitary Charge payments to the Operator matches this date. If these dates are different, the Trust should use the actual date from which it started making the Unitary Charge payments.</p> <p>Practitioners should also ensure that payments for interim services provided for existing assets prior to their refurbishment or replacement is excluded from these amounts. .</p>
D22:H22 – Services end date	The date on which the PFI project term expires	This date is normally indicated on a summary tab at the beginning of the Operator's Financial Model. It is the date the service concession arrangement is completed and the Trust takes responsibility for the Project assets.
D24:H24 – Deferred assets recognition date	The date on which any existing assets are included in the PFI scheme and hence become deferred assets under UK GAAP	The principles of accounting for deferred assets are explained in paragraphs 171 to 173 in the Accounting Guidance. If the inclusion occurs in the past, the NHS body will need to check its accounting records for the timing of

## Section 2: Using the Universal Model

		this event.			
D25:H27 – Capital contribution release dates 1-3	The date that the Trust makes any capital contributions to the operator	The Universal Model can accept up to three separate capital contribution amounts. Practitioners will need to refer to their own accounting records to ascertain the date of any capital contributions made to the Operator.			and run for figures that applied prior to the refinancing before the post refinancing figures are input. On completion of these inputs, the universal model must be re-run by clicking the second “Post-refi” button on the “Controls” tab.
		The principles of accounting for capital contributions (also known as bullet payments) are explained in paragraphs 174 to 180 in the Accounting Guidance.			
D28:H30 – Capital contributions	The value of any capital contribution made by the Trust to the Operator on the dates input above	Practitioners will need to refer to their own accounting records to ascertain the value of any capital contributions made to the Operator.			The Universal Model may accommodate the release of assets in the PFI project over up to six separate phases. The final phase of asset release is assumed to occur on the date of construction being completed (F20-J20 above), while the dates of phases 1-5 are input here. Normally the dates will fall in the period between services start and construction end.
D32:H32 – Refinancing date	The date that any refinancing of the PFI scheme occurred	As noted in paragraph 14 above, the Operator’s Financial Model at financial close should be used to derive the entries for the Universal Model.  Where there has been a subsequent refinancing of the PFI scheme, the date of the financial close of that refinancing arrangement should be entered here.  If a refinancing has taken place, the Universal Model must be populated			
			D34:H38 – Asset release dates	The dates of release of assets after the date on which services start	
			D41:H41 – Asset fair value	The total value at which the PFI project assets will be initially recognised on balance sheet when they are completed	The PFI Accounting Guidance confirms that users should initially recognise the new assets at their fair value or, where this is not available, at the cost in the Operator’s Financial Model. The amount entered here is the total for all newly created assets in the project. Inputs in the “Asset Inputs” tab will determine the profile over which the assets are recognised on balance sheet.
			D44:H44 – Useful	The useful economic life of any deferred	Normally Trusts will need advice

## Section 2: Using the Universal Model

economic life of deferred assets	assets input in F25:J25 above.	from the District Valuer for this input
D45:H45 – Book value of deferred assets	The carrying value of any assets as at the time they become deferred assets	Practitioners will need to refer to their own accounting records to ascertain the value of any deferred assets contributed to the PFI scheme.
B47	The NHS Cost of Capital (3.5%).	This figure should not be changed unless otherwise directed by the Department of Health
<i>Indexation assumptions</i>		
D50:H50 – Inflation indicator	Key 1 for annual or 2 for semi annual inflation in the Operator's Financial Model	This figure indicates whether the operator's financial model applies inflation uplifts each year to the unitary payment or each semi-annual period. Usually the uplifts are yearly in which case 2 is entered. This might be identified from whether unitary charge values are adjusted yearly or six monthly in the Operator's financial model. If the uplift is applied annually, each period's compound inflation factor contains one years' inflation at the assumed factor.
D51:H51	The annual Retail Price Index indexation included	The majority of Operator Financial Models use 2.5%; unless otherwise specified in the Operator's Financial

in the Operator's Financial Model.	Model, this figure should not change. This percentage is normally indicated on a summary tab at the beginning of the Operator's Financial Model. If the number 1 is keyed into F62, the inflation factor calculated in F64 is semi-annual.
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## Section 2: Using the Universal Model

### 2.3 This section sets out the how the “Operator Model Inputs” tab is structured

37. The “Operator Model Inputs” tab allows users to input cost data from the Operator Financial Model to the Universal Model. The inputs may include an audit trail to the locations of the cost inputs in the Operator Financial Model.
38. Rows 6-25 call up the applicable date and time values from “Global Inputs”
39. Rows 25-45 calculate date and timing flags. Conditional formatted cells indicate periods in which construction and operation start, finish and take place.
40. Rows 46-61 apply indexation assumptions to each semi-annual period.
41. The table below details the inputs required to this tab.

Cell / Row	Explanation of what must be included in the cell	Where this information might be found from the Operator’s Financial Model (or other information source)
<i>Indexation assumptions</i>		
Rows 48-52	The actual Retail Price Index for particular periods during the life of the PFI scheme.	The actual Retail Price Index utilised by the Operator is normally indicated on the invoice the Operator sends the Trust for Unitary Charge payments.
<i>The section of the “Inputs” tab from Rows 64 to 246 (which have been set up so that the relevant inputs can be made for five different scenarios)</i>		

*should include the following costs, derived from the Operator’s Financial Model. References relate to scenario one.*

*For all inputs, the date rows above each block of data indicate the periods for which inputs are needed.*

Row 64 – Real unitary payment before refinancing	Real unitary payments the Trust is due to make to the Operator for each semi-annual period, as determined in the Operator’s Financial Model.	Practitioners will need to locate the relevant tab in the Operator’s Financial Model that includes the real unitary payments. For this and subsequent real terms inputs, “Real” means priced as at the operator’s inflation base date as input to row 17 of the “Global Inputs” tab.  Figures input here should be those before any refinancing occurs. If there is no refinancing, the unitary payment should be input here and not in the location for unitary payment after refinancing (row 105 below). Where there is a refinancing, the expected unitary charge before refinancing for the entire PFI project term should be input.
Row 105 – Real unitary payment after refinancing	Real unitary payments as above but after a refinancing	As above – the real payments will apply from the semi-annual period within which the refinancing takes place and should be set at the same price base. The Universal Model assumes that this is the only change arising from a refinancing, and it should be run prior to inputting these

## Section 2: Using the Universal Model

		<p>data, then run again once these data are input.</p> <p>If the refinancing gain is taken as a lump sum rather than a reduction in unitary charge, no new inputs will be needed here. Also, the Universal Model does not calculate the refinancing gain, but takes this as an input and works out the accounting implications.</p>
Row 146 – Real third party revenue	Real third party revenues for each semi-annual period, as determined in the Operator's Financial Model	<p>Practitioners will need to locate the relevant tab in the Operator's Financial Model that includes third party revenues. Third party revenue should not be input here if it:</p> <ul style="list-style-type: none"> <li>• Does not finance a material portion or all of the assets under consideration; or</li> <li>• Does not derive from payments directly for the core services produced with the PFI Project assets.</li> </ul>
Row 187 – Real operating costs	Real operating costs for each semi-annual period, as determined in the Operator's Financial Model	<p>Practitioners will need to locate the relevant tab in the Operator's Financial Model that includes the real operating costs. SPV administration costs should be included.</p> <p>The only costs that should be included in this input are those that recur throughout the PFI Project.</p>

		Any costs that the PFI Operator incurs before unitary charge is payable should be ignored. In addition costs that relate to start up or mobilisation of the PFI project but which the PFI operator has shown as revenue should also be ignored.
Row 228 – Predicted lifecycle profile	For each scenario, real lifecycle costs as determined in the Operator's financial model are input.	Practitioners will need to locate the relevant tab in the Operator's Financial Model that includes these costs.

## Section 2: Using the Universal Model

### 2.4 This section sets out the how the “Asset Inputs” tab is structured

42. The “Asset Inputs” tab allows practitioners to determine:
- The split of fixed assets in the PFI project into asset classes and the useful economic lives of these classes;
  - The amounts to which assets are revalued;
  - Proportions of assets released in each asset release phase;
  - Proportions of lifecycle costs capitalised; and
  - Differences in value or timing of capitalised lifecycle events from those assumed in the Operator Financial Model.
43. Rows 7 – 11 show flags for construction and operations, along with calculated indexation factors. The date rows above each block of inputs indicate the periods for which inputs are needed.
44. The table below details the inputs needed for this tab.

Cell / Row	Explanation of what must be included in the cell	Where this information might be found from the Operator’s Financial Model (or other information source)
<i>New asset inputs</i>		
Rows 17-21 – Asset revaluations	The amounts to which the PFI project assets are revalued after their completion.	Users should refer to the NHS body’s District Valuer or existing records for this information. The amounts entered should be the new book value, not the change in value from

		the carrying value brought forward.
Rows 25-29 – Asset release profile	The assumed profile of completion of new assets in the PFI project	Users should input the percentage of newly created assets made available under the PFI contract’s payment mechanism in each semi-annual period. The amounts should reflect the proportions of the total fair value to be added to the asset balance in each semi-annual period.
<i>New asset useful economic lives and proportions</i>		
Rows 54-115	The useful economic lives (‘UEL’) of the new PFI assets constructed by the Operator and the proportion of the asset for each UEL	Normally Trusts will need advice from the District Valuer for this input. Practitioners may also refer to the PFI contract output specifications, which may state the required design lives of the principal assets in the project.  For each scenario, these assumptions are input to blocks of cells in columns C and D allowing up to ten separate asset classes. UELs should be input in years.
<i>Lifecycle inputs – for each scenario there is a block of cells for these inputs. The row numbers below refer to Scenario 1</i>		
Row 124	Proportion of lifecycle costs capitalised	In each period, input the expected proportion of lifecycle costs that are capital in nature according to the Operator Model’s lifecycle profile.



## Section 2: Using the Universal Model

	<p>Practitioners could obtain data supporting these assumptions from the technical specifications accompanying the Operator's bid for the PFI project. If this information is not available, users should estimate these proportions from the real terms lifecycle profile.</p>
<p>Row 125      Actual lifecycle asset additions – timing differences – nominal</p>	<p>Where a predicted lifecycle event takes place at a different time to that anticipated in the Operator Financial Model, the amount concerned should be input as a positive number in the period the event occurs and a negative number in the period the event is expected to occur.</p> <p>Normally this information is not available until the NHS body is required to draw up final accounts for the period of interest. No inputs should therefore be made to this row until this information becomes available, normally by comparing the Operator's notified intentions to the assumed lifecycle profile.</p> <p>Inputs should be at the price base of the period concerned ('nominal').</p>
<p>Row 126      Actual lifecycle asset additions – value differences – nominal</p>	<p>Where a predicted lifecycle event is deemed to have a different fair value to that the Operator assumes in nominal terms, the actual value of</p>
<p>Row 163 – Lifecycle asset UELs and proportions</p>	<p>that event should be input here.</p> <p>Normally this information is not available until the NHS body is required to draw up final accounts for the period of interest. No inputs should therefore be made to this row until this information becomes available, normally by comparing the Operator's notified intentions to the assumed lifecycle profile.</p> <p>Inputs should be at the price base of the period concerned ('nominal').</p> <p>The Universal Model allows up to 24 separate UEL classes of lifecycle asset to be defined. For each class, the UELs in years are input to column D, while actual nominal costs for each lifecycle event are split between those classes in each period in columns F to CR.</p> <p>Normally the actual information is not available for period subsequent to that for which final accounts are being drawn up. However the NHS Body's technical advisor may be able to aid in predicting the data for the Operator Model's lifecycle profile for future periods.</p>



### 2.5 This section sets out the how the “Depreciation Calcs” tab is structured

45. This tab contains the calculations for depreciating the tangible assets that the Operator initially constructs, along with any asset additions arising from the PFI project's lifecycle maintenance programme. The Universal Model assumes that assets are depreciated on a straight line basis, hence that the amount charged is a constant proportion of the depreciable amount of each asset class. This depreciable amount only changes as a result of alterations due to asset additions or revaluations.

#### New project assets

46. This section concerns the assets that the Operator constructs for the PFI project.
47. Rows 16-25 call up the relevant assumptions for UEL by class and proportion of asset class. From these values, it generates the total opening book values for each asset class.
48. Rows 29-38 show the impact on each asset class of any revaluation of the newly built assets.
49. Rows 41-50 show the change for each six month period in the amount to be depreciated. These changes arise from release of new assets and revaluations of these assets.
50. Rows 53-62 show the amount by which the depreciation charge in each period is increased. This increase reflects the amount and timing of changes in the depreciable amount.
51. Rows 65-74 show the depreciation charged for each six month period and each asset class.
52. Rows 77-86 show the closing values for each asset class. Where the amount of depreciation charged for each six month period is

greater than that period's carrying value, the charge is the amount needed to reduce the carrying value to nil.

53. Rows 89-98 show the amounts actually charged for each class to each six month period. The amount charged becomes nil once a class is fully depreciated as shown in rows 77-86 above.
54. Row 100 shows the total depreciation charged in each six month period.

#### Lifecycle depreciation calculations

55. This section concerns the asset additions arising from the PFI project's lifecycle maintenance programme.
56. Rows 106-129 call up values of asset additions from the lifecycle maintenance programme according to their six month period and UEL class.
57. Rows 132-155 calculate the depreciation charge for each UEL class and six month period.
58. Row 157 shows the total depreciation charge for the PFI project's lifecycle programme.

## Section 2: Using the Universal Model

### 2.6 This section sets out the how the “Controls” tab is structured

59. This tab is the location where the financing rates (pre-refinancing – cell C6 and where relevant post refinancing – cell C8).
60. The financing rates are presented as semi-annual. This is due to the fact that the majority of PFI Operator’s Financial Models present financial information semi-annually. This drives the format of the Universal Model, so that it is consistent with the presentation of Operators’ Financial Models.
61. The “Controls” tab also holds checks confirming that the residual interest calculations for the off balance sheet comparison are completed, and that the balance sheet for on balance sheet accounting is in balance.

#### Determining the scheme’s financing rate

62. The principles for determining the scheme’s financing rate are described in section 3.4 of the PFI Accounting Guidance.
63. The Universal Model has been set up to calculate the financing rate required to reduce the Finance Lease Liability to zero at the end of the PFI Project term. This is done by using the “goal seek” function. Macros have been set up in the Universal Model to run the calculation automatically, which are activated by two buttons which should be pressed when all of the inputs have been made into the “Inputs” tab.
64. This will ensure that the Universal Model generates appropriate accounting entries, providing practitioners have made the correct inputs into the “Inputs” tab.
65. Where the PFI project has not been refinanced, practitioners should press the “Goal seeks – pre refi” button on the “Control” tab

to run the formula. The Universal Model will update itself automatically.

66. If the financing rate output does not converge, a guess of approximately 3% should be input manually to cell E6 on this tab. If the value still does not converge, the other inputs should be checked and if necessary assistance sought.
67. If the PFI project has been refinanced, the model should be populated and run as described below.
  - Input all data applying prior to the refinancing;
  - Run the pre-refinancing model by clicking the “Goal seeks – pre refi” button repeatedly until all the checks show “OK”;
  - Input all data applying post refinancing – the universal model as configured assumes that the only change applying is a reduction in the unitary charge so this new amount is input to the relevant part of the “Operator Model Inputs” tab; and
  - Run the post-refinancing model by clicking the “Goal seeks – post refi” button repeatedly until all the checks show “OK”.
68. This sequence must be followed; otherwise the model results may not be stable.

### 2.7 This section sets out how the “Workings” tab is structured

69. This section of the User Manual explains the mechanics of the “Workings” tab. As this tab derives all its entries from the “Inputs” tab, practitioners need not make any entries to this tab.
70. The purpose of the tab is to derive the:
- Predicted and actual nominal property management costs and unitary payment;
  - Contingent rents calculation; and
  - The proportion of assets financed by revenues from third parties.

#### Called up date and time values

71. Here the relevant values keyed to the “Global Inputs” and “Operator Model Inputs” tabs are called up by copying their values. This makes it easier for users to understand how the values used in the calculations in this tab are derived.

#### Called up values from inputs tabs

72. Here the real unitary payment, operating cost, third party revenues and lifecycle cost values are called up from the “Operator Model Inputs” tab.

#### Property management costs

73. This section determines the values to be allocated from the unitary charge to pay for the management of the assets in the PFI project. Predicted and actual nominal values for the unitary charge, third

party revenues, operating costs and lifecycle costs are calculated here.

74. Predicted values are those arising by applying the Operator Financial Model's inflation assumptions to the real unitary charge, third party revenues, operating costs and lifecycle cost values. In comparison, actual nominal values are those arising by applying actual inflation assumptions to those real values.
75. Rows 44 to 47 calculate the predicted and actual lifecycle costs that are either charged as incurred to revenue or are capitalised.
76. Rows 49 and 50 calculate actual nominal unitary payment, before and after refinancing.
77. Rows 52 and 53 calculate predicted and actual nominal operating costs.
78. Rows 55 to 57 concern the situation where a significant proportion of the project assets are financed from parties other than the grantor.
79. Cells D56 and D57 estimate the proportion of the asset recognised as deferred income from the total predicted nominal fixed payments and total predicted nominal third party payments.

#### Contingent rents calculation

80. There are two calculations for contingent rents for before and after a refinancing. The calculations for before a refinancing or where there is no refinancing are in rows 70 to 74, while the post refinancing calculations are in rows 76 to 80.
81. In these calculations, the actual nominal operating costs, lifecycle costs, and minimum lease rentals are subtracted from the actual nominal unitary charge to give the contingent rent for each period.

### **Off balance sheet residual interest calculation – new assets**

82. These calculations are in rows 85-93. The calculation works by using the residual value of the total project assets (Cell C89). This draws on the closing book value of the project assets at the end of the scheme less the addition and depreciation of deferred assets. The closing book value is calculated in rows 48-58 of the “Accounting Calculations” tab; hence it corresponds to the closing value calculated under on balance sheet accounting. The calculation then applies this value across the life of the PFI scheme in Rows 86 (where the residual interest is built up on a straight line basis) and 87 (where the residual interest is built up on an accumulated basis). The latter basis is consistent with NHS practice.

### **Off balance sheet amortisation of prepayments and deferred assets**

83. These calculations are in rows 94-98 and allocate the value of capital contributions and deferred assets evenly to the operating periods of the PFI Project as required for off balance sheet accounting.

### 2.8 This section sets out how the “Accounting Calculations” tab is structured

84. This section of the User Manual explains the mechanics of the “Accounting Calculations” tab. As this tab derives entries from the “Depreciation Calcs” and “Workings” tabs, practitioners must not make any entries to this tab.
85. The purpose of this tab is to calculate the ledger entries impacting on the balance sheet and income and expenditure account of the NHS body procuring the PFI scheme. The calculations occur under the following headings:
- Fixed Assets;
  - Long Term Liabilities;
  - Deferred Income where this is relevant; and
  - Impact of the PFI scheme coming on balance sheet on the Trust’s accounts.

#### On balance sheet

##### Fixed Assets

##### NBV - Opening

86. The Universal Model will automatically apply the asset cost to the appropriate cell in the “NBV – Opening” line (Row 48) by drawing on the closing balance figures for the previous period in Row 58.

##### Depreciation

87. Row 49 calculates the depreciation chargeable in each semi-annual period for the deferred assets.

88. Rows 50 and 51 apply the depreciation calculated for the newly created assets and lifecycle additions respectively in the “Depreciation Calcs” tab.

##### Recognition of deferred assets

89. Row 52 derives the value of deferred assets and shows the removal of this balance from fixed assets to current assets – prepayments.
90. Row 53 reflects the rerecognition of deferred assets in tangible fixed assets once the PFI project assets are also recognised.

##### Revaluations of project assets

91. Row 55 will adjust the value of the newly created project assets recognised in Row 48 so that their opening value reverts to the value input to rows 16-20 of the “Asset Inputs” tab. This impact excludes any deferred assets.

##### Lifecycle additions

92. Row 56 and 57 adjust fixed assets by the amount of capitalised lifecycle maintenance incurred in that year. Row 56 adjusts for additions that relate to differences in timing or value from those assumed in the Operator Financial Model’s predicted nominal lifecycle maintenance profile. Row 57 directly applies the predicted nominal lifecycle maintenance profile.

##### Long term liabilities – pre refinancing

##### Finance lease liability

93. Rows 62-64 shows the increase of the creditor arising from recognition of new tangible fixed assets in Row 54, the predicted lifecycle maintenance profile in Row 66 of the “Workings” tab, and operating costs from Rows 65 and 67 of the “Workings” tab. The operating and lifecycle costs are priced as at the start date of services.

## Section 2: Using the Universal Model

### Release of capital contribution

94. Row 65 includes the value of any capital contributions called up from cells B28-30 of the “Global Inputs” tab. The capital contributions are treated as up front payments towards paying off the finance lease creditor.

### Finance lease interest

95. Row 66 is the finance lease interest charge, which is calculated by applying the financing rate to the lease creditor opening balance.

### Unitary charge

96. Row 67 calls up the unitary charge priced as at the start date of services from Row 66 of the “Workings” tab.

### Finance creditor goal seek

97. Row 70 holds the calculations that give a nil closing balance for the finance lease creditor. The balance in the blue cell in C70 is not nil unless the correct financing rate has been calculated.

### Minimum lease rental

98. Row 72 shows the total cash amounts allocated from unitary charge to reducing the finance lease creditor and the finance lease interest expense. These values are called through to the contingent rents calculation described above in paragraphs 80 and 81.

### Long term liabilities – post refinancing

99. The same calculations as described above are performed in rows 75-86 for the situation where the Operator has refinanced the project and passed the gain share to the grantor as a reduction in unitary charge.

### Deferred income

100. The principles for recognising and accounting for deferred income are explained in section 4.1 of the Guidance Manual.

### Additions in year – new assets constructed

101. Row 89 shows the amounts of new assets recognised as deferred income. The amounts are the differences between the fixed asset on balance sheet and the finance lease liability recognised to reflect the amounts that the NHS body is committed to pay. The proportion of finance lease creditor is generated from cell C18, which calls up the proportion of third party revenue from the “Workings” tab.

### Additions in year – lifecycle value differences

102. Row 91 shows the amounts recognised as deferred income where the Operator spends an amount that is different to that anticipated for the same lifecycle event in the Operator’s predicted nominal lifecycle profile.

### Release to income and expenditure account

103. Row 92 shows the release of the carrying value of deferred income to the income statement for each six month period. Each period’s release is the carrying value brought forward divided by the remaining number of six month periods in the project term. This results in a straight line release profile.

### Lifecycle maintenance – differences to profile

104. Rows 96-97 call up differences between the Operator’s predicted lifecycle profile and actual lifecycle events. The debits for both of these amounts are called forward to row 56 in the tangible fixed assets calculation.
105. Where the difference results from timing (row 96), the credit is called forward to long term liabilities in “Semi-Annual Statements”. It is excluded from the finance lease creditor calculations because the NHS body should not suffer an additional interest charge for a variation that is entirely at the Operator’s risk.

## Section 2: Using the Universal Model

106. Where the difference results from a difference in fair value or cost (row 97) to that expected, it is called forward to deferred income.

### Income and Expenditure account

107. Row 107 includes the total impact on the Income and Expenditure account for each semi-annual period. These consist of the following charges:

Debit to the Income and Expenditure account	Source in the Universal Model
Operating Costs	"Workings" tab Row 39 (Real operating costs) * "Workings" tab Row 10 (Cumulative actual RPI) – "Workings" tab Row 47 (Lifecycle charged to revenue)
Impairments	"Accounting Calculations" tab Row 55 where the cumulative value is negative
Finance Lease Interest	"Accounting Calculations" tab Rows 66 or 80 (Finance lease interest pre or post refinancing)
Contingent Rentals	"Workings" tab Row 74 or "Workings" tab Row 80 (Contingent rents pre or post refinancing)
Deferred income release credit	"Accounting Calculations" tab row 92
Depreciation on new additions and deferred assets	"Accounting Calculations" tab Rows 49 and 50

Depreciation on lifecycle maintenance

"Accounting" tab Row 51

### Net assets for NHS PDC Dividend

108. Row 112 calculates the PDC dividend impact of the PFI scheme when on balance sheet. The two elements that give rise to PDC dividend are listed below:
- Row 110 – The closing net assets from the PFI Project;
  - Row 111 – The closing cash balance from the PFI Project.
- The amount on which PDC dividend is charged is the average of the current and prior year closing balances for net assets less the average of the current and prior year closing balances for cash
109. Row 116 calculates the overall revenue budget impact of the PFI project by adding the PDC charged to the income statement posting for each six month period.

### Off balance sheet

#### Income and Expenditure account

110. Rows 122-126 generate the likely impact on the NHS body's income statement should the PFI project continue to be accounted for off balance sheet.
111. Row 122 calls up the actual nominal pre or post refinancing unitary charge as relevant from rows 49 and 50 of the "Workings" tab.
112. Row 123 calls up the estimated credit to the income statement arising from the allocation of part of each year's unitary payment to the acquisition of the asset at the end of the Project term. The estimate is called up from rows 86 or 87 of the "Workings" tab,



depending on the way in which the residual interest prepayment balance is accumulated.

113. Rows 124 and 125 show the allocation of deferred assets and capital contributions as calculated in rows 95-98 of the “Workings” tab.

### Prepayment balance for PDC dividend

114. Rows 129-131 calculate the total net asset impact for off balance sheet accounting on which PDC dividend is calculated. The amount on which PDC dividend is charged is the average of the current and prior year cumulative balances for residual interest, and prepayments for deferred assets and capital contributions
115. Row 136 shows the revenue budget impact of off balance sheet account, while rows, 138 and 140 compare the impact on the income statement and revenue account respectively of on and off balance sheet accounting.



### 2.9 This section sets out how the “Semi Annual Statements” and the “Annual Statements” tabs are structured.

116. Both of these tabs are structured in the same way, in that they show the net impact of the project scenario considered in the Universal Model on the NHS body’s accounting statements. The only difference is whether balances are calculated annually or six monthly.
117. In addition to the impact on the income and expenditure account and balance sheet, both of these tabs contain memoranda showing the following for each period:
- Movement in cash balances – this is called forward to the cash balance value on the balance sheet;
  - Movement in long term liabilities – this summarises the calculations for pre- and post-refinancing on the “Accounting Calculations” tab, and is called forward to the long term liabilities value on the balance sheet; and
  - Allocation of unitary charge cash – this shows how each period’s unitary charge is allocated between property management costs, minimum lease payments and contingent rentals. The graph on the “Cash Allocations” tab shows the results of this cash allocation.
118. Both of these tabs also show the financing rates calculated as annual figures. If no refinancing has occurred, the rate post refinancing is shown as nil.
119. Finally, both of these tabs include checks that the balance sheet is in balance. Conditionally formatted cells in rows 72 and 73 of both tabs indicate periods in which the balance sheet does not balance and the size of the imbalance. The overall check digits in cells C72 and C73 of the “Semi Annual Statements” tab are called up to cell C20 of the “Controls” tab.

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## **Section 3: The hypothetical example projects**

## Section 3: The hypothetical example projects

**3.1 The section explains the hypothetical projects used as worked examples in this manual. The user should refer to the Guidance Manual for explanations of the accounting principles that are applied.**

### What are the hypothetical projects?

- 120. The worked example contains two hypothetical projects that are set up to reflect as many as possible of the accounting principles in the Guidance Manual. The hypothetical projects will also act as worked examples to aid users in modelling their own projects.
- 121. The Universal Model allows for the input of up to five projects simultaneously as separate scenarios. In the worked example, we therefore consider two scenarios, one for each of the hypothetical projects.

### Summary of hypothetical projects

#### Project 1 – acute hospital

- 122. In Project 1, the entity contracting the project ('Grantor') enters agreement on the commercial and financing terms ('financial close') with the entity selected to implement Project 1.
- 123. Following financial close, the operator constructs the Project 1 assets over a period of 46 months, releasing 70% of the new assets to the Grantor at 3 years and the remaining 30% at the end of Project 1's construction period, which lasts for 3 years and 10 months. The grantor has obtained a valuation for the Project 1 assets of approximately £351 million.
- 124. As assets are released the Grantor starts paying unitary charge, fully indexed at the Retail Prices Index ('RPI') in proportion to the assets that are released.

- 125. The Grantor has included assets of book value £20 million that the Operator will refurbish then operate and maintain under the same payment mechanism as the rest of Project 1.
- 126. The Grantor will also make a cash contribution to the financing of Project 1 of £15 million, this amount is paid to the Operator during the construction of the Project 1 assets.
- 127. 1 year after the construction is completed, the Grantor obtains a revised valuation of £340 million from its district valuer for the newly created assets underlying Project 1. 18 months after that valuation, the district valuer reduces this valuation to £310 million.
- 128. Approximately 9 months after construction is completed, the Operator refinances Project 1, and the Grantor elects to take its share of the refinancing gain as a reduction in Unitary Charge. This reduction is 5% per annum from the point of refinancing.
- 129. At the end of the term of Project 1, 31 years after the end of construction, the Grantor takes responsibility from the operator for the subsequent operation and maintenance of the Project 1 assets and no further payment is due to the operator for the assets' residual interest.
- 130. Under the public sector application of IFRS for PFI projects as described in the PFI Accounting Guidance, the Grantor recognises the property in Project 1 as tangible fixed assets matched by a liability to pay for these assets because the Grantor controls the assets during the Project 1 term and its residual interest.

#### Project 2 – sale and lease back of residences

- 131. Following financial close of Project 2, the Grantor sells the right to the operator to refurbish residences accommodation. This refurbishment takes two years to complete, during which the existing accommodation is let to health care workers in return for rent that is allowed to increase by RPI + 0.5% per annum.
- 132. To enable Project 2 to be banked, the Grantor underwrites 40% of the demand for the assets by paying annual amounts wholly

## Section 3: The hypothetical example projects

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adjusted by an agreed indexation factor. The amount in the first full year of operation that is subsequently indexed is expected to equal 40% of the total revenues that the Operator will earn in the first full year of operations.

133. The grantor obtains a valuation from its district valuer for the refurbishments to the Project 2 property on completion of £8.025 million. 1 year after the refurbishment is completed, this valuation is amended to £7.8 million.
134. At the end of the term of Project 2, after 35 years, the Grantor takes responsibility from the Operator for the subsequent operation and maintenance of the Project 2 assets, and no further payment is due to the operator for the assets' residual interest.
135. Under the public sector application of IFRS for PFI projects as described in the PFI Accounting Guidance, the Grantor recognises the refurbishments undertaken by the Operator as a fixed asset while continuing to recognise the existing property also as a tangible fixed asset. This is because the Grantor controls who can rent space in the accommodation and restricts how much the Operator can raise rents.
136. Unlike Project 1, the Grantor's liability to pay for the refurbishments is restricted to 40% of its value due to the fixed payments expected to meet 40% of each year's rent income. As described in section 4.1 of the Guidance Manual, the remaining credit for the fixed asset is recognised as deferred income.

## Section 3: The hypothetical example projects

### 3.2 This section summarises the inputs for the acute hospital hypothetical project

137. The table below repeats the table describing how the “Global Inputs”, “Operator Model Inputs”, and “Asset Inputs” tabs are populated by stating the values of and rationale behind each of the inputs for Project 1. These inputs are entered for Scenario 1.

#### Global Inputs

Cell / Row	Narrative	Input value and background
<i>Date and time inputs</i>		
D17	Operator model indexation base date	1 April 2007
D18	First six month period end	30 September 2007 – the month ending either 31 March or 30 September within 6 months of the indexation base date
D19	Construction start	14 May 2007 – extracted from Operator model
D20	End of construction	31 March 2011 – extracted from Operator model and is the point at which all new assets are expected to be completed
D21	Services start date	1 May 2010 – means that some assets are released to Grantor prior to the end of construction.

D22	Services end date	31 March 2042 – the end of the Project 1 term – at this point the Grantor takes full responsibility for operating and maintaining the Project 1 assets
D24	Deferred assets recognition date	31 August 2009 – the date at which the Operator takes responsibility for maintaining and refurbishing existing assets included in Project 1. Under UK GAAP the Grantor would have derecognised those assets at that time so the comparison with off balance sheet accounting requires this date to be input.
D25:D27	Capital contribution release dates 1-3	31 August 2009 and 28 February 2010 – the Grantor recognises these amounts as prepayments from these dates to the end of construction, following which the amount is debited to the finance lease creditor.
D28:D29	Capital contributions	£10 million and £5 million
D32	Refinancing date	15 January 2012
D34	Asset release phase dates	Phase 1 – 1 May 2010. This is the same as when services start. Phase 2 is assumed to occur at the end of construction so is not input.
D41	Asset fair value	£350.893 million

## Section 3: The hypothetical example projects

D44	Useful economic life of deferred assets.	45 years
D45	Book value of deferred assets	£20 million
B47	The NHS Cost of Capital (3.5%).	This figure should not be changed unless otherwise directed by the Department of Health
<i>Indexation assumptions</i>		
D50	Annual or semi annual indexation indicator	2 – assumes unitary charge is indexed annually in the Project 1 operator model
D51	Operator model annual RPI inflation	2.5%

### Operator Model Inputs

Cell / Row	Narrative	Input value and background
<i>Indexation assumptions</i>		
Rows 48	Actual RPI index	3% per annum between the years ending 31 March 2012 and 31 March 2014. Since annual indexation is assumed, values are input to six monthly periods ending in March, leaving the six monthly periods

ending in September blank.		
<i>Cost Inputs from Operator Model</i>		
Row 68	Real unitary payment before refinancing	£22.287 million per six month period once all assets are released
Row 109	Real unitary payment after refinancing	£21.173 million per six month period once the refinancing is completed
Row 146	Real third party revenue	Nil – third party income is assumed to be ancillary to the main activity in Project 1 so any such income is disregarded
Row 191 and 192	Real operating costs	Real costs and fees are approximately £0.8 million per six month period. Operating costs are indexed in the Project 1 operator model at greater than 2.5% so increase in real terms from approximately £7.9 million to £9.7 million per six month period.
Row 232	Predicted lifecycle profile	Approximately £43 million in real terms, averaging about £0.74 million per six month period

### Asset Inputs

## Section 3: The hypothetical example projects

Cell / Row	Narrative	Input value and background
<i>New asset inputs</i>		
Row 17	Asset revaluations	£340 million in the period ending 31 March 2012  £310 million in the period ending 31 September 2013
Rows 25	Asset release profile	70% by value in the period ended 30 September 2010  30% by value in the period ended 31 March 2011
<i>New asset useful economic lives and proportions</i>		
Rows 54-63	UEs and proportion of each class	10% of the asset has UEL 10 years 10% of the asset has UEL 15 years 10% of the asset has UEL 20 years 20% of the asset has UEL 25 years 50% of the asset has UEL 60 years
<i>Lifecycle inputs</i>		
Row 124	Proportion of lifecycle capitalised	60% in all six month periods of the Project 1 operating phase

Row 125	Actual lifecycle additions – timing differences	£2 million in period ending 30 September 2018 brought forward from periods ending 30 September 2020 (£1.1 million) and 31 March 2021 (£0.9 million)  £4 million in period ending 30 September 2039 brought forward from periods ending 30 September 2040 (£2.9 million) and 31 March 2041 (£1.1 million)  Note that inputs to this row should not be made until it is clear that the lifecycle programme timing has altered from that in the operator model
Row 126	Actual lifecycle additions – value differences	£0.6 million increase in period ending 30 September 2016  £2 million increase in period ending 30 September 2018
Rows 163-186	Lifecycle asset UELs and proportions	All less than £100k indexed linked has UEL 5 years  Between £100k and £500k index linked has UEL 10 years  All remainder has UEL 25 years

## Section 3: The hypothetical example projects

### 3.3 This section summarises the depreciation calculations for the acute hospital hypothetical project

#### New Project Assets

##### Depreciation assumptions – cells B16:E25

138. These figures detail the value of each asset class, defined by that class's useful economic life ('UEL'), which is also shown. The figures in column E are factors for each asset class by which the value of that class is divided to give each six month period's depreciation charge.

##### Asset revaluations profile – rows 29-38

139. These calculations show the movement in the amount on which depreciation is charged in each six month period. The reduction in the period ended 31 March 2012 of £10,803k reduces the asset value to £340,000k in that period, and the further reduction of £30,000k in the period ended 30 September 2013 reduces the value to £310,000k. Those two amounts match the assumed asset values input to cells O16 and R16 of the "Asset Inputs" tab.

##### Depreciable amount profile – rows 41-50

140. These calculations show the amount for each six month period on which depreciation is charged for each asset class. The totals of columns L and M equal the values shown for each asset class in cells D16:D26, while the subsequent amounts equal the values in rows 28-39.

##### Depreciation addition – rows 53-62

141. These figures show the amount charged from the six-month period concerned. For example, the amount chargeable from 1 October 2010 is £6,667k (£4,447k + £2,000k). This amount reduces by £207k in the period ended 31 March 2012.

##### Semi annual depreciation charge – rows 65-75

142. This applies the depreciation addition amounts to generate the total charge for each six month period. The amount charged remains constant until there is a depreciation addition. In the period ended 30 September 2010, the amount charged is reduced because Project 1's operating phase starts part of the way through this period. The proportion of this period is 82.78%, calculated in row 8.

##### Asset closing values – rows 77-86

143. The carrying value of each asset class reduces to nil once its UEL is expired. The value of the asset class in row 77 IS nil from the period ending 31 March 2020.

##### Depreciation charge for period – rows 89-98

144. The depreciation charge for each six month period is calculated by deducting the minimum of the carrying value or the depreciation charge for that period. Hence the asset class in row 89 has a depreciation charge in the period ending 31 March 2020 of £1,224k, not £1,550k as calculated in row 65. The total depreciated amount for that asset class is £31,000k, or 10% of the last valuation obtained for that class.

##### Total depreciation charge – row 100

145. This is the total of depreciation charges for each asset class calculated in rows 88-99.



## Section 3: The hypothetical example projects

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### 3.4 This section summarises how the controls are run for the acute hospital hypothetical project

#### Calculation of outputs – refinancing

146. As stated in paragraph 23 above, the sequence below should be followed since Project 1 includes a refinancing.
147. All inputs except for the date of the refinancing are added then the button marked “Goal seeks – pre refi” in the “Controls” tab is clicked repeatedly until the checks in cells C16 and C17 show “OK” in a green font. At this point the financing rate pre refinancing in cell C6 should equal 3.842%. This is a semi-annual rate. Note that at all times the balance sheet in balance check in cell C20 should show “OK” in a green font AT ALL TIMES.
148. The date of the refinancing – 15 January 2012 – is input to cell Global Inputs! F32. At this point, the checks in cells E16 and E17 show “NO” in a red font.
149. The second button marked “Goal seeks – post refi” is now clicked repeatedly until the checks in cells E16 and E17 show “OK” in a green font. At this point the financing rate post refinancing in cell C8 should equal 3.353%. Again, this is a semi-annual rate.

## Section 3: The hypothetical example projects

### 3.5 This section summarises the workings for the acute hospital hypothetical project

150. The results of the “Workings” tab for Project 1 are now summarised.

#### On balance sheet

##### Property management costs – rows 43-68

151. This shows the predicted and actual nominal values for unitary charge, operating costs and lifecycle costs. The values are different because the inflation rate is assumed to differ from 2.5% per annum in some of the six month periods.

##### Contingent rents calculations – rows 69-80

152. The table below shows how contingent rents are calculated for pre refinancing and post refinancing. The figures are predicted totals across the Project 1 term:

<i>Cash flow allocation</i>	<i>Pre refinancing</i>	<i>Post refinancing</i>
Actual nominal unitary payment	2,386,819	2,211,532
Actual nominal operating and expensed lifecycle costs	-1,053,656	-1,035,672
Actual nominal capital lifecycle costs	-47,433	-47,433
Minimum lease payments	-851,791	-736,337
<b>Contingent rent</b>	<b>433,939</b>	<b>392,090</b>

153. Note that operating and lifecycle costs totals for post refinancing exclude any costs occurring prior to the refinancing. The Universal Model assumes that six monthly values for these costs after the refinancing do not change.

#### Off balance sheet

##### Residual interest

154. The predicted carrying value of the newly created assets in cell C92 is shown as approximately £119.6 million. This value is the closing tangible fixed asset balance less the total movement in deferred assets.
155. Row 86 allocates the balance in cell C92 on a straight line basis across the Project 1 operating phase. In comparison, row 87 allocates this balance on an accumulating basis, applying the standard NHS cost of capital of 3.5% compounded (held in cell C92).

##### Amortisation of prepayments and deferred assets

156. Rows 95-98 amortise each capital contribution on a straight line basis from the point the payment is made. Each six month period's amortisation amount is £156k and £81k for the two contributions of £10 million and £5 million respectively. Since the £5 million payment is later than the £10 million, its amortisation amount is more than 50% of the larger amount.
157. Row 101 shows the release of deferred assets on the basis that these are off balance sheet for the Grantor under UK GAAP. The annual amount is approximately £313k.

## Section 3: The hypothetical example projects

### 3.6 This section summarises the accounting calculations for the acute hospital hypothetical project

158. In Project 1, the Grantor recognises the property underlying the project as a tangible fixed asset following IAS 16, along with a liability to pay for this property measured as a finance lease. The level of third party revenue is considered to be incidental so is ignored for the purposes of this exercise.

#### On balance sheet

#### Fixed assets

#### NBV – Opening – row 48

159. The Universal Model presumes that assets are recognised at the point the Grantor starts to pay unitary charge to the Operator. It also presumes that where assets are released over more than one phase, the amount recognised is proportional to the release profile input to rows 25-29 of the “Asset Inputs” tab.
160. In Project 1, 70% of the Project assets are released in the semi annual period ended 30 September 2010, with the remainder released in the semi annual period ending 31 March 2011. Accordingly, the amounts posted to tangible fixed assets are £245,625k and £105,268k in those two periods (see row 54).

#### Depreciation – rows 49-51

161. Depreciation is charged in row 49 on deferred assets from the period ended 30 September 2010 on a straight line basis over a useful life of 45 years, giving an annual charge of £444k.
162. The depreciation charged on newly created assets is called up from row 100 of the “Depreciation Calcs” tab in row 50. This calculation gives a six monthly charge of £3,863k in the period ended 30 September 2010, rising to £6,667k to the six monthly

period ending 31 March 2011. This charge then increases to £6,460k per six month period from the six month period ended 31 March 2012, then falls further to £5,890k per annum from the six month period ended 30 September 2013, to reflect the revaluation of the property in those two periods.

163. Depreciation is charged on lifecycle additions as calculated in row 157 of the “Depreciation Calcs” tab on a straight line basis over 5, 10 or 20 years against class values as defined in the “Asset Inputs” tab.

#### Deferred assets – row 52 and 53

164. The Universal Model adds £20,000 of deferred assets to prepayments in the period ended 30 September 2009, then transfers this balance back to the fixed asset carrying value in the period ended 30 September 2010.

#### Revaluations of project assets – row 55

165. The Universal Model posts £6,304k to the revaluation reserve in the period ended 31 March 2012. This is calculated as follows:

<i>Item</i>	<i>Value (£'000)</i>
New asset initial value	350,893
Less depreciation to 30 September 2011	-17,197
Less revaluation	-340,000
<b>Reserve posting</b>	<b>-6,304</b>

166. The Universal Model then posts a reduction in fixed asset carrying value of £10,620k in the period ended 30 September 2013. This is calculated as follows:

## Section 3: The hypothetical example projects

<i>Item</i>	<i>Value (£'000)</i>
New asset initial value	350,893
Less depreciation to 31 March 2013	-36,577
Addition to value 31 March 2011	6,304
Less revaluation	-310,000
<b>Reduction in fixed asset carrying value</b>	<b>10,620</b>
Reversal of revaluation reserve	6,304
Impairment	4,316
<b>Total</b>	<b>10,620</b>

### Lifecycle additions – row 56 and 57

167. These additions are presumed to follow the profile extracted from the Operator's financial model amended for actual inflation and following the assumed proportions of lifecycle cost that is capitalised. The total addition is £50,033k, while these additions are depreciated by £34,494k, meaning that the net addition to fixed assets from the lifecycle programme is expected to be £15,539k.

### Long-term liabilities – pre refinancing

168. In row 62, additions to the long term liability match the addition of new fixed assets from construction. The amounts recognised are therefore equal and opposite.

169. In row 63, the predicted lifecycle profile is added to the long term liability, priced at the date at which services start.
170. In row 64, predicted real operating costs priced at the full services start date are added to the long term liability.
171. In row 65, the capital contributions of £10 million and £5 million are debited to the long term liability carrying value in the periods ended 30 September 2010 and 30 September 2011.
172. In row 66, the financing rate generated in the "Controls" tab is applied to the sum of each period's opening balance of and additions in that period to the finance lease creditor. The calculation determines the rate to apply either before or after the refinancing then applies that rate.
173. In row 67, each period's predicted real unitary charge cash flow is subtracted from the total of the amounts just described. The amounts total £1,563,328k.

### Minimum lease rentals

174. These total £856,296k and are shown in row 72.

### Long-term liabilities – post refinancing

175. The steps described in paragraphs 168-173 above are repeated in rows 74-86. The minimum lease rentals total £736,337k.

### Deferred income

176. In Project 1, there is no significant third party revenue so no deferred income balance is recognised.

### Income and Expenditure account

177. Rows 99-108 calculate total income and expenditure account impacts as shown in the table below:

## Section 3: The hypothetical example projects

<i>Item</i>	<i>Value</i>
Operating costs	1,053,656
Impairments	4,316
Finance lease interest	445,370
Contingent rentals	392,576
Deferred income release	-2,600
Depreciation – new and deferred assets	252,160
Depreciation - lifecycle maintenance	39,110
<b>Total i/e impact</b>	<b>2,184,588</b>

### Net assets for PDC dividend

178. This is calculated at 3.5% of the carrying value of the accumulated residual interest prepayment. When added to the total i/e impact, the result is a total revenue budget impact of £2,173,775k.

### Off balance sheet

#### Income and expenditure account

179. Under off balance sheet accounting, the grantor would expense the unitary payment as incurred, along with a credit for the accumulation of a prepayment for the acquisition of the Project 1 assets' residual value. Where relevant, the income and

expenditure account will also include the amortisation of any capital contributions and any deferred assets.

180. The table below shows total income and expenditure account impacts for off balance sheet accounting:

<i>Item</i>	<i>Value</i>
Unitary charge	2,270,423
Residual interest	-119,562
Amortisation of capital contributions	15,000
Amortisation of deferred assets	20,000
<b>Total i/e impact</b>	<b>2,190,336</b>

### Net assets for PDC dividend

181. This is calculated at 3.5% of the carrying value of the accumulated residual interest prepayment.

## Section 3: The hypothetical example projects

### 3.7 This section summarises the inputs for the residences hypothetical project

182. The table below repeats the table describing how the “Inputs” tab is to be populated by stating the values of and rationale behind each of the inputs for Project 2. These inputs are entered for Scenario 2.

#### Global Inputs

Cell / Row	Narrative	Input value and background
<i>Date and time inputs</i>		
E17	Operator model indexation base date	1 April 2007
E18	First six month period end	30 September 2007 – the month ending either 31 March or 30 September within 6 months of the indexation base date
E19	Construction start	14 April 2007 – extracted from Operator model
E20	End of construction	31 March 2009 – extracted from Operator model and is the point at which all new assets are expected to be completed
E21	Services start date	1 April 2007 – means services are performed as accommodation made

		available for rental from the beginning of Project 2.
E22	Services end date	31 March 2042 – the end of the Project 2 term – at this point the Grantor takes full responsibility for operating and maintaining the Project 2 assets
E24	Deferred assets recognition date	Nil – there are no deferred assets in Project 2.
E27	Capital contribution release dates 1-3	Nil – there are no capital contributions in Project 2.
E310	Capital contributions	Nil – there are no capital contributions in Project 2.
E32	Refinancing date	None – there is no refinancing in Project 2
E34	Asset release phase dates	Phase 1 – 1 April 2009. There is only one phase of new asset release, this being the completion of refurbishment of the Project 2 accommodation.
E41	Asset fair value	£8.025 million
E44	Useful economic life of deferred assets.	Nil – there are no deferred assets in Project 2.
E45	Book value of	Nil – there are no deferred assets in

## Section 3: The hypothetical example projects

	deferred assets	Project 2.
E47	The NHS Cost of Capital (3.5%).	This figure should not be changed unless otherwise directed by the Department of Health
<i>Indexation assumptions</i>		
E50	Annual or semi annual indexation indicator	2 – assumes unitary charge is indexed annually in the Project 1 operator model
E51	Operator model annual RPI inflation	3.0%

### Operator Model Inputs

Cell / Row	Narrative	Input value and background
<i>Indexation assumptions</i>		
Rows 48-52	Actual RPI index	No changes made to operator model assumption in G46.
<i>Cost Inputs from Operator Model</i>		
Row 75	Real take or pay rent level before refinancing	£199,628 per six month period once all assets are released

Row 116	Real take or pay rent level after refinancing	Nil – no refinancing in Project 2
Row 157	Estimated variable rental	£299,422 per six month period once all assets are released; unlike in Project 1, this income is integral to the purpose of Project 2, comprising rent from tenants. It is therefore included in the analysis.
Row 198	Real operating costs	Operating costs are approximately £110,000 per six month period.
Row 235	Predicted lifecycle profile	Nil – the Project 2 operator model assumes that all lifecycle maintenance is non-capital in nature so is expensed as incurred.

### Asset Inputs

Cell / Row	Narrative	Input value and background
<i>New asset inputs</i>		
Row 18	Asset revaluations	£7.7 million in the period ending 31 March 2010 £7.38 million in the period ending 31 March 2012
Row 26	Asset release profile	85% by value in the period ended 30

## Section 3: The hypothetical example projects

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September 2007		
15% by value in the period ended 31 March 2009		
<i>New asset useful economic lives and proportions</i>		
Rows 67-76	UEls and proportion of each class	100% of the asset has UEL 50 years
<i>Lifecycle inputs – there are no lifecycle inputs for Project 2 since none of this cost is capital in nature.</i>		



## Section 3: The hypothetical example projects

### 3.8 This section summarises the depreciation calculations for the residences hypothetical project

#### Depreciation assumptions – cells B16:E25

183. These figures detail the value of each asset class, defined by that class's useful economic life ('UEL'), which is also shown. The figures in column E are factors for each asset class by which the value of that class is divided to give each six month period's depreciation charge. In the case of Project 2, only one asset class of UEL 50 years is assumed.

#### Asset revaluations profile – rows 29-38

184. These calculations show the movement in the amount on which depreciation is charged in each six month period. The reduction in the period ended 31 March 2010 of £325,000 reduces the asset value to £7.7 million in that period, and the further reduction of £320,000 in the period ended 31 March 2012 reduces the value to £7.380 million. Those two amounts match the assumed asset values input to cells K17 and O17 of the "Asset Inputs" tab.

#### Depreciable amount profile – rows 41-51

185. These calculations show the amount for each six month period on which depreciation is charged for each asset class. The totals of columns F and I equal the values shown for each asset class in cell D22, while the subsequent amounts equal the values in row 37.

#### Depreciation addition – rows 53-63

186. These figures show the amount charged from the six-month period concerned. For example, the amount chargeable from 1 October 2008 is £80,250 (£68,213 + £12,038). This amount reduces by £3,250 in the period ended 31 March 2010.

#### Semi annual depreciation charge – rows 65-75

187. This applies the depreciation addition amounts to generate the total charge for each six month period. The amount charged remains constant until there is a depreciation addition. In the period ended 30 September 2007, the amount charged is reduced because Project 2's operating phase starts part of the way through this period. The proportion of this period is 99.44%, calculated in row 8.

#### Asset closing values – rows 77-86

188. The carrying value of each asset class reduces to nil once its UEL is expired. In the case of Project 2, the one asset class assumed has a UEL of 50 years so never reaches a nil value during the Project 2 term.

#### Depreciation charge for period – rows 89-98

189. The depreciation charge for each six month period is calculated by deducting the minimum of the carrying value or the depreciation charge for that period. Hence the depreciation charge in row 95 in the period ending 31 March 2020 varies according to the value of the depreciable amount calculated in row 83.

#### Total depreciation charge – row 100

190. This is the total of depreciation charges for each asset class calculated in rows 88-99.

## Section 3: The hypothetical example projects

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### 3.9 This section summarises how the controls are run for the residences hypothetical project

#### Calculation of outputs – refinancing

191. Since Project 2 does not include a refinancing, only the button marked “Goal seeks – pre refi” need be operated.
192. All inputs are added then the button marked “Goal seeks – pre refi” is clicked repeatedly until all checks show “OK” in a green font. At this point the financing rate in cell C6 should equal 4.773%. This is a semi-annual rate. Note that if the Universal Model includes a scenario where a refinancing has occurred, a rate post refinancing may show in cell C8. However this rate will not apply to the scenario under consideration so should be ignored.

## Section 3: The hypothetical example projects

### 3.10 This section summarises the workings for the residences hypothetical project

193. The results of the “Workings” tab for Project 2 are now summarised.

#### Property management costs

194. This shows the predicted and actual nominal values for unitary charge, third party revenues, operating costs and lifecycle costs. Since inflation is unchanged, there are no differences between the predicted and actual nominal values.

#### Contingent rents calculation

195. The table below shows contingent rent totals:

<i>Cash flow allocation</i>	
Nominal unitary charge	24,742,506
Nominal operating costs	-5,419,061
Lifecycle costs	0
Minimum lease payments	-11,135,865
<b>Contingent rent</b>	<b>8,187,581</b>

## Section 3: The hypothetical example projects

### 3.11 This section summarises the accounting calculations for the residences hypothetical project

196. In Project 2, the Grantor recognises the property underlying the project as a tangible fixed asset following IAS 16, along with a liability to pay for 40% of this property measured as a finance lease. The remaining 60% of the property is paid for from rentals from people living in the residences. The remaining 60% of the asset is therefore matched to a deferred income balance whose initial value equals 60% of the tangible fixed asset balance.

#### On balance sheet

#### Fixed assets

#### NBV – Opening – row 48

197. The Universal Model presumes that assets are recognised at the point the Grantor starts to pay unitary charge to the Operator. It also presumes that where assets are released over more than one phase, the amount recognised is proportional to the release profile input to row 26 of the “Asset Inputs” tab.
198. In Project 2, 85% of the Project assets are released at the beginning of the semi annual period ended 30 September 2007, with the remainder released in the semi annual period ending 31 March 2009. Accordingly, the amounts posted to tangible fixed assets are £6.821 million and £1.204 million in those two periods (see row 54).

#### Depreciation – rows 49-51

199. The depreciation charged on newly created assets is called up from row 100 of the “Depreciation Calcs” tab in row 50. This calculation gives a six monthly charge of £68k from the period ended 30 September 2007, rising to £80k from the six month period ending 31 March 2009. This charge then reduces to £77k

from the six month period ended 31 March 2010, falling further to £73.8k from the six month period ended 31 March 2012, to reflect the revaluation of the property in those two periods.

#### Deferred assets – row 52 and 53

200. There are no deferred assets in Project 2.

#### Revaluations of project assets – row 55

201. The Universal Model posts £40,138 to the revaluation reserve in the period ended 31 March 2010. This is calculated as follows:

<i>Item</i>	<i>Value</i>
New asset initial value	8,025,000
Less depreciation to 30 September 2010	-365,138
Less revaluation	-7,700,000
<b>Reserve posting</b>	<b>-40,138</b>

202. The Universal Model then posts a reduction in fixed asset carrying value of £12,000 in the period ended 31 March 2012. This is calculated as follows:

## Section 3: The hypothetical example projects

<i>Item</i>	<i>Value</i>
New asset initial value	8,025,000
Less depreciation to 30 September 2011	673,138
Addition to value 31 March 2011	40,138
Less revaluation	-7380,000
<b>Reduction in fixed asset carrying value</b>	<b>12,000</b>
Reversal of revaluation reserve	12,000
Impairment	Nil
<b>Total</b>	<b>12,000</b>

### Lifecycle additions – row 56 and 57

203. Project 2 has no capitalised lifecycle costs so there is no movement in fixed assets associated with lifecycle maintenance.

### Long-term liabilities – pre refinancing

204. In row 62, additions to the long term liability match the addition of new fixed assets from construction. The proportion of long term liability added equals 40% of the expected real terms rent income, entered as unitary charge. The amounts recognised are therefore equal and opposite to 40% of the new asset value.

205. Project 2 has no capitalised lifecycle costs so there is no movement in long term liabilities associated with lifecycle maintenance.
206. In row 64, 40% of predicted real operating costs are added to the long term liability.
207. Project 2 has no capital contributions so there are no entries to row 65.
208. In row 66, the financing rate generated in the “Controls” tab is applied to the sum of each period’s opening balance of and additions in that period to the finance lease creditor. The calculation determines the rate to apply either before or after the refinancing then applies that rate. The amount is added to the opening balance of and additions to the finance lease creditor.
209. In row 67, 40% of each period’s expected real terms rent income is subtracted from the total of the amounts just described. The amounts total £14,273,547.

### Minimum lease rentals

210. These total £11,135,865 and are shown in row 72.

### Long-term liabilities – post refinancing

211. There is no refinancing in Project 2 so no entries to this calculation.

### Deferred income

212. In Project 2, 60% of the expected revenue in real terms comprises rents from third parties. The grantor therefore recognises a deferred income credit equal to 60% of the assets’ initial fair value, or £4,815,000. This amount is released to the income statement on a straight line basis over the Project 2 term. The amounts released are £70k per six month period after 30 September 2008.

## Section 3: The hypothetical example projects

### Income and Expenditure account

213. Rows 99-108 calculate total income and expenditure account impacts as shown in the table below:

<i>Item</i>	<i>Value</i>
Operating costs	5,419,061
Impairments	0
Finance lease interest	7,925,865
Contingent rentals	8,187,581
Deferred income release	-4,815,000
Depreciation – new and deferred assets	5,174,559
Depreciation - lifecycle maintenance	0
<b>Total i/e impact</b>	<b>21,892,065</b>

### Off balance sheet

#### Income and expenditure account

214. Under off balance sheet accounting, the grantor would expense the unitary payment as incurred, along with a credit for the accumulation of a prepayment for the acquisition of the Project 1 assets' residual value. Where relevant, the income and expenditure account will also include the amortisation of any capital contributions and any deferred assets.

215. The table below shows total income and expenditure account impacts for off balance sheet accounting:

<i>Item</i>	<i>Value</i>
Unitary charge	24,742,506
Residual interest	-2,878,200
Amortisation of capital contributions	0
Amortisation of deferred assets	0
<b>Total i/e impact</b>	<b>21,864,306</b>

#### Net assets for PDC dividend

216. This is calculated at 3.5% of the carrying value of the accumulated residual interest prepayment.