Communities and Local Government

Modelling business plans for council landlords

Local authority financial model user guide

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PricewaterhouseCoopers

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Department for Communities and Local Government

Department for Communities and Local Government
Eland House
Bressenden Place
London
SW1E 5DU
Telephone: 030 3444 0000
Website: www.communities.gov.uk

If you require this publication in an alternative format please email alternativeformats@communities.gsi.gov.uk

DCLG Publications
Tel: 030 0123 1124
Fax: 030 0123 1125

Email: product@communities.gsi.gov.uk
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1.0 Introduction

1.1 Overview

The Department for Communities and Local Government (DCLG) published a consultation document titled *Reform of Council Housing Finance* on 21 July 2009.

This includes an option of dismantling the current Housing Revenue Account Subsidy system and replacing it with a 'self-financing' system. Under self-financing, council landlords will support their own stock in future from their own income and will no longer be part of an annual subsidy relationship with central Government. It is important to recognise that "self-financing" is a replacement for the current housing subsidy arrangements and so it is drawn from the housing subsidy calculation.

PricewaterhouseCoopers have produced a spreadsheet model (the "Model") to assist DCLG in developing sustainable self-financing business plans for each local authority with housing stock. The model forecasts the amount of borrowing which each local authority business plan would require each year over a 30-year period and compares this to the amount of debt which the business could support.

The model also quantifies and presents the national impact of these plans in aggregate.

With many of the variables tested in the main model now settled, it has been possible to prepare a simpler model that sets out the key inputs into the debt valuation calculation for each council and the way they are used in the calculation. A key element of the design brief for the models is that they are to be as *"clear and transparent as possible".* Consequently features that can inhibit transparency, such as complex macros, have not been used in the model.

1.2 Underlying methodology

The Model draws data from DCLG's 2011-12 subsidy determination for income and expenditure for each local authority. It is hoped therefore that councils will be familiar with this information and will be able to compare key assumptions used in the cash flow model with their current housing subsidy position.

Certain assumptions in the subsidy calculation are then modified to arrive at a starting point for each local authority's income and expense in 2011-12 in the valuation model.

The cash flow is then built up over a 30-year period and is then discounted back to the self-financing implementation date at a set discount rate to determine the net present value of the surplus of the income over expense.

This figure is the value of debt to be allocated to that authority. The calculation of the debt has deliberately been made similar to the valuation calculation for a housing stock transfer, as it is anticipated that many councils will be familiar with this approach to the valuation of local authority housing stock.

Tab colour coding	
Tab colour	**Represents**
Yellow	Key assumptions and base data sheets
Green	Supplementary input sheets
Blue	Main data processing sheet
Orange	Output sheets

1.3 Your authority sheet

Selecting the light green shaded local authority name cell gives access to a drop down list of all council landlords. Choose your authority from the list and some summary information is displayed. (Note that the authority selected here is also used in the debt by local authority calculation and the indicative cash flow by local authority output sheets.)

The summary information includes an ”Opening Debt Allocation (Valuation)” which represents the figure to which the subsidy capital finance requirement will be adjusted through the allocation to or removal from a council of debt. In most cases the “Opening Debt Allocation (Valuation)” will be the same as the council’s “Indicative Debt Cap”. However the latter may be higher if the council’s housing capital financing requirement is higher than its subsidy capital finance requirement.

2.0 Model Inputs

All cells in the model representing an input are highlighted in light green.

2.1 Key assumptions

2.1.1 *General*

Model start date (Year of DCLG Com Data) – the year the model is set to start running and must be the same as the year of the subsidy information. For example, if the subsidy information is from the 2011-12 subsidy determination is to be used, then the Model start date is 2011.

Self-financing arrangements start – the year the self-financing regime begins and is assumed to be one year after the Model start date, i.e. 1 April 2012.

No of years of self-financing cash flow – the number of years the projected cash flow will be calculated over to arrive at a net present value for the national or local authority debt. The base case is set at 30 years.

Net present value discounted back to – it is most meaningful to discount all housing revenue account cash flows back to the start of the self-financing regime as this would then show the present value of the debt at the point the new regime is to ensue.

Net present value discount rate – the discount rate to apply to the net housing revenue account cash flows to arrive at a figure the net debt in present value terms. The net present value discount annual rate is set at 6.50 per cent, as this is consistent with housing transfer valuations.

No of local authorities to be allocated debt – This is the number of local authorities within the subsidy determination with a non zero stock balance which will therefore constitute the number of local authorities being allocated debt.

Business plan bespoke cash flow assumptions – these assumptions drive the simple indicative national and local authority business plan cash flows.

Base Inflation –The base figures for the indicative business plan cash flows are taken from the National Debt Total and Debt Total by local authority sheets and inflation is applied to all income and expense lines at this base rate.

Interest Rate for Surplus – The rate applied to surplus cash balances in the business plan.

Interest Rate for Deficit – The rate applied to deficit cash balances in the business plan.

Debt management (basic) – fixed element debt management cost for the business plan. Base case figure of £39,226 has been taken from the 2011-12 subsidy determination. It has been increased by 2.5 per cent to £40,207 for the assumed 2012-13 level.

Debt management (variable) – is the variable element debt management cost for the business plan. Base case figure of 0.04732 per cent has been taken from the 2011-12 subsidy determination. It has been increased by 2.5 per cent to 0.04850 per cent for the assumed 2012-13 level.

2.1.2 Pre self-financing multipliers

The year which falls between the Model start date and the start of the self-financing regime is displayed here under Rent, Management and Maintenance and Major Repairs Allowance and green input cells have been completed with the base assumptions.

An assumption must be made with regards to how the data from the subsidy determination (and therefore the Model start date) is updated throughout the interim period before self financing begins. The multipliers are input here as percentages. Increases prior to self financing implementation need to take account of anticipated inflation so that the figures at the commencement of the cash flow model reflect an estimate of the income and costs at implementation.

For example, it is assumed that the Model start date is 2011 and the self-financing regime starts in 2012 and that the rent will be uplifted by 4.00 per cent in 2011 (3.50 per cent inflation and 0.50 per cent real), so 4.00 per cent has been input against 2011 under the rent heading.

2.1.3 Post self-financing multipliers

Following the implementation of self-financing, assumptions have to be made as to how income and costs will move relative to inflation, as the discount rate used in the cash flow valuation is assumed to take account of inflation. Councils may recognise this principle as also applying to housing stock transfer valuations.

In the subsidy determination, there are two different bases to which Rent and Management and Maintenance and Major Repairs Allowance figures are linked to. These are the Retail Prices Index and the GDP deflator. Movements in these indices are not usually the same, with the GDP deflator (to which expenditure items are linked) often being slightly lower. However for the purposes of the projected cash flow it has been assumed that future movements in these two indices will be the same.

2.1.4 Rental

Percentage of voids – set at 2 per cent in the base case in line with the assumption used in the DCLG subsidy determination.

Years to convergence at model start date – the number of years from the Model start date that it will take for the Guideline Rent to converge to the Formula Rent. The convergence year has been set at 2015-16, in line with the recent subsidy determination. A model start date of 2011 therefore requires that the number of years to convergence has been set at 4 in the key assumptions worksheet.

Limit on increase to constrained rent (pd pw) – The amount by which the actual rent is increased by after inflation plus 0.5 per cent to arrive at the Average Weekly Constrained Rent within the Rent Caps and Limits adjustments. Set to £2 in the base case in line with DCLG's own workings. This is then deflated for subsequent years within the Rent Caps and Limits workings.

2.1.5 Management and maintenance

Adjustment method – the management and maintenance figures from the subsidy determination are increased to arrive at revised figures for 2011-12. The adjustment is made by increasing the proportion of the "pot" which is multiplied by the MR/HR factor, which is dependent on the proportion of high rise and medium rise stock within a council's portfolio.

Percentage of Management costs MR/HR factor applied to – the current percentage applied in the subsidy determination for the purposes of calculating the 2011-12 management allowance is 20 per cent of the Pot 2 Management Allowance. This percentage has been increased to 45 per cent as a means of reflecting the findings of the phase 1 work.

Response repairs MR/HR factor – Applied to the Crime/Flats factor of the Maintenance Allowance. The larger this number is, the greater the Crime/Flats factor applied and thus the greater the response repairs MR/HR factor. In the subsidy determination a figure of 3.34 is used and this has been increased to 5.5, which produces an overall uplift in the Maintenance Allowance consistent with the findings of the Phase 1 work.

2.1.6 Major repairs allowance

Adjustment method – the major repairs allowance figures from the subsidy sheet are updated to arrive at the starting point for these figures in 2011-12 using the Archetype uplift factor. This applies a percentage uplift specific to each local authority depending on the archetype of stock within its portfolio. The uplift factors have been calculated by taking the outcomes for each council of the major repairs allowance review undertaken by BRE in phase 1 of the housing finance review, adjusting them to a 2011-12 price base and comparing them with the council's major repairs allowance in the 2011-12 housing revenue account subsidy determination.

Total Disability Facilities Adaptations – this is the total national disabled facilities adaptation allowance to be allocated across all local authorities. The total quantum of allowance will be allocated to each local authority on a pro rata basis, depending on their stock numbers, but adjusted with the Regional Cost Factor from the housing subsidy determination. (This is the same adjustment factor which drives the major repairs allowance adjustment.) This adjustment will not materially alter the total quantum of disabled facilities adaptation allowance – it merely reallocates the allowance between the local authorities based on their relative Regional Cost Factors.

2.2 Base data

The main purpose of this sheet is to collate and set out the data sets for each council that are the main drivers for the cash flow projections. Many of the figures are drawn from the "Comdata" sheet in the housing revenue account subsidy determination (shaded light green) and a reference to the column within the "Comdata" sheet is given in row 2.

The sheet is divided into four sections: housing stock, rent, management and maintenance and major repairs allowance, which are briefly explained in the following paragraphs. There is a fifth section that summarises, for each council, the increase over the major repairs allowance allowances in the 2011-12 determination of the revised major repairs allowance and disabled facilities adaptation allowances used in the valuation calculation and the overall increase in allowances (expenditure) over the subsidy determination.

2.2.1 Housing stock – shows the three columns taken directly from the subsidy determination used in the calculation of rents and management costs, maintenance costs and major repairs allowance, respectively. (Note that there are a small number of councils proposing to transfer all or part of their housing stocks in 2011-12 and the stock totals for these are adjusted accordingly.) The Right to Buy allocations are derived from another sheet in the model and are explained below. Data on dwelling numbers taken from the "Comdata" sheet will not take account of future demolitions and the effect this will have on income and costs. DCLG have agreed to consider reasonable estimates of demolitions planned in the near term with the possibility of reflecting them in the valuation. The model has the functionality to do this but no estimate has been included in the model.

2.2.2 Rents – shows the guideline and formula rents from the subsidy "Comdata" sheet and the total gross amount of each when multiplied by the housing stock number.

2.2.3 Management and maintenance – columns L and N show the management and maintenance allowances from the subsidy determination. They have been subject to top-slicing and transitional protection in the determination and are figures that councils will recognise. As the first year sums used in the valuation form the basis of cost assumptions for the next 30years, it was not considered appropriate that they should be subject to any top-slicing or any transitional protection. Columns M and O contain the corresponding revised sums from the adjusted calculations, as explained in section 2.2.5 above that are used in the valuation. Column P shows the combined total of the two that is used in the cash flow. Column Q shows the corresponding total figure (i.e. before top-slicing and transitional protection) from the subsidy determination and column R shows the percentage increase for each council that the revised calculation has produced.

2.2.4 Major repairs allowance – compares the major repairs allowance in the subsidy determination with that from the recalculation based on the BRE review. Column Y shows the annual allowance (in thousands) for disabled adaptations. As previously outlined, this is the pro rata allocation of a national sum adjusted by the regional costs factors taken from the subsidy determination and included at column Z.

2.2.5 Uplifts – columns Z displays what the increases in major repairs allowance "allowances" (including the disabled facilities adaptation allowance) represent above the provision in the subsidy determination. Column AA shows what the increases in all allowances used in the valuation calculation represent over those in the subsidy determination.

2.3 Supplementary inputs

There are a series of sheets (with green tabs) that contain adjustments relating to specific councils that are incorporated into the cash flow projects and that are briefly explained in the following paragraphs.

2.4 Arms-length management organisation subsidised capital expenditure

This sheet is currently blank (since the Comprehensive Spending Review announcements) but may be used to incorporate any backlog funding subsequently awarded to councils.

2.5 Other reckonable expenditure and historic premia

Cells B194 to B373 list the current “Amortized Premiums/Discounts” (Item Z) inputs. These are assumed to reduce at a rate of 15 per cent per year. Other reckonable expenditure figures included are those provided by DCLG and are listed in cells B382 to B561. They are assumed to reduce at a rate of 10 per cent per year. The combined costs (in £’000) are collated in the top section of the sheet.

2.6 Private finance initiative

The sheet has been provided by DCLG and formatted in line with the rest of the model.

The private finance initiative projects have been split into two sections – 1) signed schemes and 2) unsigned schemes which are due to be signed before the self financing regime starts.

Total Stock Adjustments by local authority (after private finance initiative concession period has ended) – calculates the number of private finance initiative units to be added back to each local authority’s stock once the private finance initiative projects reach an end.

2.7 Right to Buy

This sheet determines the reduction to be made to each local authority’s stock based on the attributed level of Right to Buys allocated against each local authority over time.

The assumed national level of Right to Buys each year is input into Column E and is derived from forecast assumptions supplied by HM Treasury.

The allocation for each region is input into Column H and is derived from the analysis of sales in each region in the last three years.

The regional allocation of each local authority is input into Column B.

The Right to Buy allocated against each local authority is calculated in Column E in the Base data sheet based on the regional allocation and then the relative stock held by that local authority against all local authorities in that region.

Each year each council will be “allocated” a percentage of the nationally assumed Right to Buy total sales in line with these calculations.

2.8 Stock movements

Annual planned stock movements (reductions) can be entered (separately for stock driving Rent calculations and for stock driving major repairs allowance calculations). These are entered as negative figures. Adjustments can then be made to the stock figures used within the Main workings tab based on these entries. (Only entries relating to stock transfers scheduled to complete in 2011-12 have so far been included in this sheet.)

2.9 Rent Caps and Limits (1)

It is acknowledged that there are challenges in predicting future rent caps and limits and best estimates have been prepared. Input data 2011-12 Caps and Limits adjustment in arrears for 2010-11 has been provided separately by the DCLG. The adjustment in column I is then taken forward to column BC and then through to Rent Caps and Limits (2) and Main workings to make an adjustment to the 2011 Guideline rent.
The calculation is repeated for years 2011-12 onwards. Note – the Retail Prices Index figures to use in the calculation are hard coded and based on information obtained from the DCLG.

The £2 limit has been deflated by Retail Prices Index for subsequent years and hard coded in.

2.10 Rent Caps and Limits (2)

This presents the Rent Caps and Limits adjustment for each year for each local authority. If the adjustment is positive, it is ignored and set to Nil.

3.0 Main workings

Multiplier Factors before self financing starts – converts the multipliers for the interim period between the model start date and the self financing regime per the Key assumptions into annual multipliers. For example, under 2012, the multiplier represents the uplift to be applied to the 'Com Data 2011-12 (process)' figure to arrive at the projected 2012 equivalent.

Inflation Factors after self financing starts – converts the inflation assumptions per Key assumptions into annual multipliers for each year post self financing.

Inflation Factors overall – combines the inflation factors above to drive the model from one set of inflation figures.

Convergence – sets the "years to convergence" for each year based on the original convergence number at the self financing start date as entered in Key assumptions.

Right to Buys in period – computes the number of Right to Buys for each local authority based on the mechanics described in Section 2.8.

Stock numbers for Rent (adjusted for Right to Buy sales and stock movements) – computes the stock numbers annually which drive the rental calculations. The stock number includes the Right to Buy adjustment and the adjustment arising from any further stock transfers and movements as entered within the input tabs.

Stock numbers for major repairs allowance (adjusted for Right to Buy sales and stock movements) – computes the stock numbers annually which drive the major repairs allowance calculations. The stock number includes the Right to Buy adjustment and the adjustment arising from any further stock transfers and movements as entered within the input tabs. Adjustments to these stock numbers for private finance initiative stock are made in later workings (see point below).

Private finance initiative adjustments to stock – the original stock numbers for major repairs allowance calculations were expressed with the private finance initiative units removed for schemes already signed. This profiles the unit numbers when they are to be added back – that is, after the private finance initiative programme has finished for that local authority. It also profiles the units to be removed for private finance initiatives yet to be signed.

Stock numbers for major repairs allowance net of private finance initiative adjustments – brings together the above two sections and calculates the stock numbers annually which drive the major repairs allowance calculations.

Formula Rent – takes the opening year formula rent position from the Base data, uprates the figure each year for inflation and adjusts it for stock numbers.

Guideline Rent (before caps and limits and voids adjustment) – takes the opening year Guideline rent from Base data. For each subsequent year, the DCLG's Guideline rent formula is then applied. Note – this is a gross figure based on the stock in the year. Voids and caps and limits adjustments are made subsequently and NOT here.

Guideline rent (adjusted for caps and limits and voids) – takes the Guideline rent from the section above, adjusts with figures (as appropriate) from the caps and limits calculations and adjusts for 2 per cent void losses.

Management and maintenance – takes the opening year management and maintenance position from Base data, adjusts for stock losses and uprates the figure each year for inflation pre self-financing.

Major repairs allowance non backlog (includes disabled facilities adaptation) – takes the opening year major repairs allowance per unit from Base data and multiplies it by inflation and then the stock number for each council after private finance initiative stock adjustments have been applied (see below). It then adds the allocated disabled facilities adaptation allowance for each local authority as computed in the Base data sheet.

Stock numbers for major repairs allowance – takes the original major repairs allowance stock numbers from Base data and then adjusts them by the figures from private finance initiative Stock Adjustment sheet.

Arms-length management organisation subsidised capital expenditure – takes the original arms-length management organisation subsidised capital expenditure figures from the arms-length management organisation subsidised capital expenditure sheet (which are blank at the moment as explained above).

Other reckonable expenditure and historic premia – takes the original other reckonable expenditure and historic premia figures from the other reckonable expenditure and historic premia sheet and applies them.

4.0 Outputs

4.1 National Debt Total

The cash flows are presented from the start of the self-financing regime start date.

The cash flows are presented over 30 years.

The net present value is then calculated to the end of the year of self-financing start at the rate set within Key assumptions.

Debt management costs have been included – these will present figures which are a summation of the allocated costs for each local authority within the Debt Total by local authority tab (see below).

4.2 Debt Total by local authority

Presents the debt cash flows and net present value of the cash flows for each local authority.

The local authority is selected in Your Authority sheet.

The debt to be allocated for each authority is then presented in the table in column C from row 16 onwards. This is compared with the estimated subsidy capital finance requirement at implementation (column E from row 16) to give the net debt movement in column G. The housing capital finance requirement figure for each authority is shown in column H and is taken from the 2011 base data form. This is used to inform the indicative debt cap calculation (in the summary table on the Your Authority sheet) in the event that the housing capital finance requirement is higher than the subsidy capital finance requirement.

Columns J and M compute the debt management costs for each local authority based on the inputs from Key assumptions. It is noted that this will create a circular calculation with the debt management costs being determined only after debt allocation has been made, but then with the former driving the latter. A simple macro has therefore been written to overcome this – this is a simple copy and paste macro which takes the computed values in Column M and places them in Column J which then drives the debt management calculations within the debt determination calculations. The debt management allowance is calculated based on the opening debt and the same sum is allowed in every year. The total of the debt management allowances for all councils is used in the National Debt Total calculation.

4.3 Indicative National Cash flow

Presents the debt cash flows and uplifts them with the inflationary indices set within Key assumptions for the business plan bespoke cash flows.

Rows 13 – 16 then present the business plan with the interest rate and debt management costs from Key assumptions. These are both simply applied to the loan balance in the start of the year to avoid a circular reference.

An indicative loan profile is then presented in graphical format.

4.4 Indicative Cash flow by local authority

Presents a simple indicative business plan cash flow for the local authority selected within the 'Debt Total by local authority' sheet.

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