

# **CALCULATION OF THE DEPRECIATION CHARGE TO BE APPLIED TO THE HOUSING REVENUE ACCOUNT.**

## **1. INTRODUCTION**

- 1.1. In February 2011, CIPFA consulted on proposed changes to capital financing and accounting as a result of the introduction of self-financing within the Housing Revenue Account (HRA). The consultation period ended on March 31<sup>st</sup> 2011.
- 1.2. A large number of responses were received to the consultation and concerns were raised about both affordability and the potential volatility of the charge to the revenue account. Since the initial consultation, CIPFA has been working with a number of local authorities to explore the issues raised in more detail.
- 1.3. This paper is split into three parts. Section 2 provides an expanded explanation of the approach to identifying the major components based on the existing methodology; Section 3 explores the practical implications of this approach; and, Section 4 proposes a change to the basis of valuation for social housing that provides a way forward for dealing with the issues identified in Section 3.
- 1.4. The methodology set out in Sections 2 and 3 remains relevant for the assessment of component based depreciation within the HRA, with the draft transitional arrangements announced by CLG allowing the impact upon the bottom line to be mitigated (see para. 1.5). Any change in valuation would need to be formally adopted before it could be implemented and the transitional arrangement gives time for its proper consideration. With that in mind, this paper contains a number of consultation questions designed to help CIPFA assess its impact.

### **Transitional Arrangements Announced By CLG**

- 1.5. In order to allow the transfer to full depreciation accounting and allow time for proper implementation, the recent draft determination published by CLG allows a transitional period of up to five years with authorities able to move across to full depreciation accounting beforehand should they wish. During this period, authorities would be allowed to continue to reverse out depreciation and impairment and allow the equivalent to the major repair costs in the self-financing valuation to hit the bottom line. This transitional period will also deal with any issues about short term affordability due to the way the HRA model operates.

### **The Relationship between Valuation and Componentised Depreciation**

- 1.6. The International Accounting Standard (IAS) that deals with accounting for property, plant and equipment is IAS 16, and is

incorporated in the Accounting Code<sup>1</sup> for local authorities. This requires that, where an asset can be broken down into identifiable components with different useful lives, those components should be accounted for separately. Componentisation needs to be applied at an appropriate level of materiality and components with similar lives and depreciation methods can be grouped together.

- 1.7. Where a method of identifying component valuations is adopted that is different to the overall valuation method, for example the use of replacement cost and EUV-SH<sup>2</sup>, the two must be reconciled to each other with the balance relating to the non-componentised element. Under the componentised depreciation approach set out in this paper, the identification of components remains unchanged. Any change in valuation would impact upon the non-componentised element.

## **2. COMPONENTISED DEPRECIATION**

- 2.1. Within accounting, depreciation is used to provide a measure of the cost of the economic benefits or service potential embodied in an asset that have been consumed during the accounting period.
- 2.2. The consumption of the asset can be estimated by identifying all the capital expenditure needed to maintain the asset or key components over their life cycles and then spreading the total cost over the number of years in the life cycle, either on an even, straight line basis or over another profile where this more accurately reflect the consumption of the asset. Estimated in this way, annual depreciation not only represents the annual consumption of economic benefits or service potential but, in most circumstances, reflects the capital maintenance expenditure that, on average, needs to be spent year on year to maintain the assets in a steady state.

### **Life cycle plans and whole life costs**

- 2.3. The asset management plan identifies and costs all the capital works and their projected timing. In doing so, it provides the information needed to both undertake long-term expenditure forecasting and a variety of financial modelling.
- 2.4. The housing business plan will identify the key components that are expected to be replaced at regular intervals over the life of the asset, for example bathrooms and kitchens. In addition to these major components, there will be a residual element relating to the basic shell – for the purposes of this paper referred to as an extended life asset (equivalent to the non componentised asset). For an extended life asset, a level of

---

<sup>1</sup> The Code of Practice on Local Authority Accounting in the United Kingdom 2011/12, CIPFA 2011 (the Code)

<sup>2</sup> Existing Use Valuation – Social Housing

maintenance expenditure is likely to be required to maintain the service potential of the asset.

- 2.5. Assumptions about the remaining life of an asset, component or treatment should be reviewed annually and revised where necessary. The box below summarises the key steps in identifying components.

#### Four Key Steps in Determining Components

**Step 1:** determine component breakdowns and groupings.

**Step 2:** determine grouping of individual components and any residual relating to the fabric of the building (extended life) and for the latter any expenditure reflecting the economic consumption of the asset.

**Step 3:** for each component type identified, develop a life cycle plan that includes the expected life of the component, or for the extended life element of the asset the maintenance programme plus the timing, nature and cost of all the maintenance needed to maintain the service potential of the component over its useful life.

**Step 4:** for each component, the assumptions and outputs from the life cycle plan should be modelled. The key elements here are estimated asset life and maintenance costs, including replacements. The latter should be assigned to the year in which they are expected to arise.

#### Housing Business Plan

- 2.6. Under self-financing, the housing business plan becomes more critical. The plan will now be set in a more stable environment following the removal of the subsidy system and the volatility associated with it. The plan can now provide the reassurance about the long term financial viability of the HRA.
- 2.7. It is important in developing the component groupings, maintenance and replacement costs and component lives that these mirror the assumptions set out in the business plan. If the assumptions about lifecycles in the business plan and depreciation are not closely aligned, this may lead to affordability issues for the HRA in both the short and medium term.

#### Basis for calculating depreciation

- 2.8. For finite life components, depreciation is based on the cost of the component and its expected life. For each component (or group or asset, depending on the level of componentisation), annual depreciation should be calculated as the cost of the component spread over its estimated life.

- 2.9. The information needed to calculate depreciation – capital costs and estimated lives – should be available in and taken from the Housing Asset Management Plan that feeds into the Housing Business Plan.
- 2.10. The depreciation charge should reflect the economic consumption of the asset, which may be done on a straight line basis. The straight line basis has the advantage of providing an even charge for budgeting purposes. However, other methods may be used if they are deemed to be more appropriate. This also ensures that the consumption of the economic benefits or service potential is spread evenly across generations.
- 2.11. The depreciation model places the emphasis on reviewing and keeping the data and the assumptions in the asset management plan up to date, which, if properly met, should provide the necessary assurance for financial reporting.
- 2.12. Changes in the estimated useful economic life of an asset or component will, of course, need to be reflected in the annual depreciation charged. If the estimated life is extended, then the remaining depreciable amount should be spread over the longer period. If the life is reduced, then either the remaining depreciable amount must be spread over the shorter period or the asset should be subject to an impairment review. Where indications of impairment exist, the authority would need to determine the asset's recoverable amount.

### **The Major Repairs Reserve**

- 2.13. Where full depreciation is applied in the private sector, the debit to the Income and Expenditure Account effectively builds up 'cash' resources in the company to fund asset replacement and maintenance. CLG have said that, for the HRA, they want to earmark depreciation to be used for capital maintenance or repayment of debt under self-financing of council housing. Therefore, it will be required that the resources available, as a result of the application of depreciation and impairment, are reflected in a continuation of the Major Repairs Reserve (MRR). Whilst the use of the MRR continues to be restricted to the expenditure on maintenance or the repayment debt, any balance on the MRR will merely reflect timing differences between the making of the depreciation charge and the subsequent expenditure.

## **3. PRACTICAL ISSUES WITH APPLYING THE APPROACH**

- 3.1. Appendix 1 provides three examples of how the approach can be applied. These examples are based upon EUV-SH valuations, although, the component based element would apply equally under a different valuation basis. The examples illustrate two important elements of the methodology.

- 3.2. Two of the examples are based upon an individual property based approach; the third is based upon component groupings rather than beacon properties. Both are perfectly acceptable under IFRS<sup>3</sup> and reflect how information is held and programmes are managed in the individual authorities.
- 3.3. The examples use different component groupings and component lives – **there is no single solution** and the number of individual components and their asset lives should reflect what is sensible and reflective of individual authorities. Indeed, one of the authorities we worked with identifies only 4 components!

### **Existing Use Valuation Social Housing**

- 3.4. Depreciation is calculated on the basis of cost for finite life components or component groups. Component costs will not equate directly to the balance sheet value based on market valuations for existing use social housing due to extended life assets, land, and the discount relating to social housing use.
- 3.5. The EUV-SH land value will be supplied directly by valuation with the residual<sup>4</sup> element being represented by the difference between depreciated replacement cost of components and the EUV-SH valuation for the whole building. (Note: Under component accounting this cannot be a negative figure as this would imply that the components were impaired immediately upon installation, requiring impairment of the component values at that point).
- 3.6. Concern was raised both as part of the consultation and in discussions with individual authorities that the use of EUV-SH introduces an instability in the forecasting of depreciation as it subject to significant fluctuation both as a result of movements in market values and the discount factor applied to reach EUV-SH.

### **Affordability**

- 3.7. Because depreciation is based upon costs and life cycles as identified by the housing asset management plans, which in turn feed the housing business plans, and, assuming that the housing business plan is affordable, then depreciation should not place unaffordable financial demands on the housing revenue account over the life-cycle of the plan. A number of authorities have raised issues of short term affordability because of the profile of the cashflows but discussions with some of them have suggested that this would be dealt with by a transitional period.

---

<sup>3</sup> International Financial Reporting Standards

<sup>4</sup> Note: the term residual here is used to describe the difference between the valuation and the sum of components – it does not have the same meaning as a residual value under IAS 16.

- 3.8. The draft Item 8 determination includes a transitional arrangement based upon Major Repairs Allowance (MRA) for the first 5 years of self financing. This gives more time to ensure that the solution to depreciation is affordable and predictable and this paper looks to consult further on depreciation given the scale of the changes proposed.
- 3.9. A number of authorities commented that considerable affordability issues may arise because of stock that values consider to have short asset lives for the fabric of the building. In such cases the affordability issues raised by depreciation are reflecting the underlying affordability issues of the housing business plan. This issue is unlikely to be resolved under plans for depreciation accounting. It is recognised that due to the significant impact upon this small number of authorities, other solutions may need to be found to the affordability of the HRA under self-financing.
- 3.10. Impairment, however, does have the potential to impact on the housing revenue account to the extent that it exceeds the amount already accumulated in the revaluation reserve.

### **Impairment**

- 3.11. An asset is impaired when its carrying value exceeds its recoverable amount. Likely causes of impairment for HRA assets are an asset or component that failed or otherwise needed replacement before the end of its estimated useful life. Another might be damage due to an accident such as fire or natural phenomenon such as flooding, fire or other severe adverse weather conditions.
- 3.12. An impairment loss is defined as the amount by which the carrying amount of an asset exceeds its recoverable amount. The carrying amount is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses.
- 3.13. The Accounting Code requires that at the end of each reporting period authorities are required to make an assessment as to whether there is any indication that any material asset may be impaired. If an indication exists, the recoverable amount must be estimated having regard to the application of the concept of materiality in identifying whether the recoverable amount of an asset needs to be estimated. If no indication of an impairment loss is present a formal estimate of the recoverable amount is not required.

### **Measuring impairment**

- 3.14. The approach used for impairment should be established and consistently applied. After an approach is established, if it is identified that a change in the approach would provide a fairer

valuation, then this should be applied at the next valuation and described in the valuation report.

- 3.15. Damage to assets resulting in an impairment charge is calculated as the difference between the carrying amount and recoverable amount, which might be more or less than the restoration / replacement cost. It must be charged within the year that the impairment occurs. As with depreciation, any residual value would be netted off.

### **Replacements funded by insurance**

- 3.16. Where an asset is damaged as a result of an accident, the authority will where possible seek to recover the costs of replacing the asset or component(s) through a claim on the party's insurance. Although there is no net cost to the authority, the Code and SeRCOP requires that insurance costs are charged to the Consolidated Income and Expenditure Statement requiring that the replacement should be treated for asset management and valuation and budgeting in the same way as any other component replacement. The insurance payment can then be used as a contribution to set off against the cost.

## **4. PROPOSALS TO CHANGE THE VALUATION METHODOLOGY**

- 4.1. From the work carried out with a group of local authorities it became clear that many of the practical issues of implementation and concerns held by individual authorities stemmed from the use of EUV-SH within the HRA. As a result of these issues around EUV-SH, a discounted cash flow (DCF) approach to valuation was raised with authorities as a possible solution to the instability in depreciation and impairment caused by EUV-SH.
- 4.2. A net DCF approach is contained within existing CLG valuation guidance. This is very close to the approach used for Tenanted Market Value for the purpose of LSVT. However, given the move to IFRS, and in particular Impasse's recent consultation on fixed asset valuation<sup>5</sup>, it is likely that any long term DCF solution would need to be based upon gross rather than net cash flows. A DCF approach on gross, rather than net, income is consistent with IFRS moving forward because it provides a measure of economic value.
- 4.3. The DCF approach produces a valuation by discounting, to the required valuation date, income streams rising from the housing stock operation. The method would require a conversion to capital value of the income stream that flows, over a period of time, from the housing stock operation. Income needs to

---

<sup>5</sup> 'Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities: Measurement of Assets and Liabilities in Financial Statements Phase 3: Consultation Paper', International Public Sector Accounting Standards Board, <http://ifac.org/PublicSector/ExposureDrafts.php>

include rental flows, reflecting the Council policy on increases in rent levels, voids and bad debts as well as projected income from assets such as lock-up garages and estate shops and other income.

- 4.4. Once the information is available, the valuer is in a position to estimate the income streams over the timeframe for valuation. Given that the business plan uses a period of thirty years, it may be sensible to use this period, although views are sought as to whether a different timescale would be more appropriate. Income will be projected for each of the ensuing say 30 years and discounted back to a present day value by the use of a selected discount rate. The cumulative discounted income stream represents the net present value of the stock.
- 4.5. A move to a DCF valuation based on gross income is likely to remove many of the issues of impairment that arise as a result of general market conditions, leaving only impairment relating to stock that becomes un-rentable due to an impairment event hitting the bottom line. Some volatility could occur as a result of the discount factor and a view will need to be taken as to whether use of a specified discount rate, or range of discount rates, would be necessary to mitigate this impact.
- 4.6. Such a change in valuation bases is likely, however, to result in an increase in stock values in the housing balance sheet. Whilst this will lead to an increased depreciation charge hitting the HRA Income and Expenditure Statement it does not necessarily result in an additional cost to the housing revenue account because of the subsequent transfer from the Revaluation Reserve.
- 4.7. Under accounting practice any increase in depreciation charged to the HRA Income and Expenditure Statement as a result of revaluation of assets is subsequently reversed out as an unrealised gain/loss from the revaluation reserve so mitigating its impact on general balances. With component accounting, the value of the components is assumed to be unaffected by the revaluation so any change in valuation is applied to the non componentised elements of the asset. Given that the Revaluation Reserve was started at zero value in 2007, it will be necessary to determine a fixed starting point from when this would be applied.

## **5. CONSULTATION QUESTIONS**

- 5.1. The methodology set out in this paper remains relevant for the assessment of component based depreciation within the HRA, with the draft transitional arrangements announced by CLG allowing the impact upon the bottom line to be mitigated (see para. 1.5). Any change in valuation would need to be formally adopted before it could be implemented and the transitional arrangement gives time for its proper consideration. We are seeking comments on the proposed change to the valuation

methodology by **Friday 30th September**. In particular, we are seeking responses to the following questions

1. Do you support the proposal to move to a discounted cashflow basis of valuation in order to reduce volatility in valuation?
2. What would be the practical implications of such a change, for example potential volatility caused by the discount rate? And how might these be mitigated?
3. What would be the most suitable period over which the DCF value should be calculated?
4. Is the DCF approach suitable for non dwelling HRA assets?
5. What would be a suitable starting point to determine historic costs to be applied in the depreciation calculation – should this be 31 March 2012, before the revaluation under a DCF approach? Is there data available to more accurately determine historic cost?
6. Does the proposed transitional period provide sufficient flexibility to deal with any initial affordability issues? If not what are the affordability issues that remain and how are these dealt with in your business plan?

Please respond by email to Lesley Lodge at [lesley.lodge@cipfa.org.uk](mailto:lesley.lodge@cipfa.org.uk)

Worked examples of the potential steps towards a depreciation calculation for a HRA dwelling based upon EUV-SH.

Authority A – Individual Property Approach						Authority B – Individual Property Approach				
	Life	2 bed Bungalow £	2 bed flat £	3 bed House £	Multi 2 bed £	Ave £	Component	Life	Value	Depreciation
Bathroom	15	1,487	1,487	1,487	1,487		<b>Finite Life Components</b>			
Kitchen	15	2,780	2,876	2,961	2,876		Bathroom	20	£2,500	£125
Boiler	15	1,292	1,292	1,292	-		Kitchen	15	£3,300	£220
Rewire	25	2,254	2,209	2,384	2,209		Boiler	15	£1,500	£100
Roof	60	5,200	5,200	5,200	5,200		Heating distribution	30	£2,000	£67
External Doors	25	1,414	1,070	1,433	-		Roof/chimney	50	£4,000	£80
Windows	35	2,793	2,621	3,513	5,676		External doors	30	£1,000	£33
sub		<b>17,220</b>	<b>16,755</b>	<b>18,270</b>	<b>17,448</b>		Rewiring	30	£2,500	£83
Residual	150	37,780	23,245	51,730	16,552		Windows	30	£3,000	£100
EUV-SH		<b>55,000</b>	<b>40,000</b>	<b>70,000</b>	<b>34,000</b>		<b>Extended Life Components</b>			
Depreciation		<b>935</b>	<b>824</b>	<b>1,067</b>	<b>738</b>	<b>891</b>	Residual	150	£23,000	£153
<b>Stock 28,000</b>						<b>24,961,966</b>				
Major Repairs Allowance 2011/12 £19,434,835							<b>EUV-SH Buildings</b>		<b>£42,800</b>	£961

## Authority C – Planned Programmes Approach

Component	Number of dwellings	Life	Replacement cost - including fees	Gross replacement cost - including fees	Unit depreciation charge	Gross depreciation charge
Roof Structure	8,477	60	540	4,577,580	9	76,293
Roof Finish – Pitched	5,369	60	3,783	20,314,196	63	338,570
Roof Finish – Flat	11,585	25	761	8,810,140	30	352,406
Wall - all structure and finish components	16,954	60	2,499	42,371,225	42	706,187
Chimney	3,971	60	628	2,492,561	10	41,543
Electrical System	16,954	30	2,292	38,852,210	76	1,295,074
Heating Central Heating Gas Boilers	9,262	30	2,116	19,599,487	71	653,316
Heating Central Heating Distribution System	9,262	30	4,179	38,709,247	139	1,290,308
Heating other	7,692	20	3,094	23,797,217	155	1,189,861
Windows	16,954	35	5,474	92,810,435	156	2,651,727
Door Entry System Replacement Programme	473	20	11,250	5,321,250	563	266,063
External Doors – Houses	8,591	20	1,181	10,147,637	59	507,382
External Doors – Flats	8,363	30	191	1,599,502	6	53,317
Kitchen (100% of properties)	16,954	20	5,850	99,180,900	293	4,959,045
Bathroom (100% of properties)	16,954	35	2,475	41,961,150	71	1,198,890
Lift Maintenance	62	30	196,875	12,206,250	6,563	406,875
				462,750,985	Total Annual Depreciation	15,986,855
				496,000,000	EUV - SH	
		150		33,249,015	Residual	221,660
					Total Depn	16,208,515
					New MRA	17,367,000
					Difference	1,158,485