Old Mutual

Technical note on market consistent embedded value (MCEV)

Market consistent embedded value (MCEV) is a valuation of ordinary shareholders' interests in the long-term life insurance part of the business (called "covered business"). It represents the present value of future earnings (on a local statutory basis) distributable to shareholders from the covered business, where the earnings are adjusted for risk in a consistent manner to the valuation of financial instruments in deep and liquid markets.

MCEV does not make any allowance for future new business. This would need to be incorporated in order to arrive at a complete valuation of a company which still writes new business.

Adjusted Group MCEV is a management view that allows for additional, specific adjustments to the MCEV of covered business and IFRS value of non-covered business.

This technical paper has been written to assist understanding of MCEV results in general and the Old Mutual MCEV approach in particular. It covers the following areas:

1. Group MCEV for Old Mutual

Group MCEV measures the consolidated value of shareholders' interests in covered and non-covered business. Non-covered business is valued at the unadjusted IFRS net asset value (NAV) detailed in the primary financial statements. The Group MCEV can be derived from the IFRS net asset value of both covered and non-covered business.

1.1 Covered business:

In general, this includes all material operations which are regarded by local insurance supervisors as long-term life assurance business or operations, where profits are consolidated into the long-term business profits in the IFRS accounts.

MCEV calculation:

The sum of the following components:

- Adjusted net worth, which excludes acquired intangibles and goodwill, and consists of:
    - Free surplus allocated to the covered business; and
    - Required capital to support the covered business.
- Value of in-force covered business (VIF), which represents the future earnings embedded in the current in-force book of business.

1.2 Non-covered business:

This includes all other business operations in the Group.

Where the business operation is not a "business unit" (as defined for the Old Mutual segmental reporting, for example Bermuda asset management), this is included in the MCEV within the "net other business" component (described in section 2.3 below).

MCEV calculation:

The treatment is the same as in the primary financial statements, i.e. IFRS NAV, but adjusted to eliminate intercompany loans. Where intercompany transactions, such as loan notes from Old Mutual plc, are permitted as admissible for statutory reporting for the Business Unit, these are included in the non-covered business contribution.

- Skandiabanken, Mutual & Federal and asset managers (excluding US Asset Management): valued at IFRS net asset value (NAV)
- Nedbank: For Group MCEV this is valued at its IFRS NAV. The adjustment to value Nedbank at its market value is made within the Adjusted Group MCEV.
- US Asset Management: valued at IFRS NAV, allowing for the value of the loan note held with Old Mutual plc[1]. The loan note effectively represents the value in excess of the IFRS NAV which management place on USAM. The liability portion of the loan note is included within the "net other business" component.

[1] Please see Notes to Consolidated Financial Statements B6 (line item "Inter-segment liabilities"). This loan is eliminated on consolidation for IFRS reporting

1.3 Components of Group MCEV

	£m	
	At 31 December 2011	At 31 December 2010
IFRS Equity	**8,488**	8,951
Adjustment to IFRS net asset value[1]	**(2,607)**	(2,526)
Adjustment to remove perpetual preferred callable securities[2]	**(688)**	(688)
Value in-force business	**4,535**	4,164
Group MCEV	**9,728**	9,901
Group MCEV per share (pence)	**174.9**	181.5
Total number of ordinary shares in issue at end of period less treasury shares (millions)	**5,562**	5,456

Notes:

1. Adjustments include the following:
    a. Adjustment to include long-term business on a statutory solvency basis (i.e. the local regulatory basis, for example that used in FSA returns in the UK) as this may be different to the IFRS basis, (the valuation of investment contracts at account value under IFRS for example).
    b. Inclusion of Group equity and debt instruments held in life funds; and
    c. Adjustments to remove Goodwill (as this is an intangible asset and excluded from MCEV).
2. This adjustment removes the value of the perpetual preferred callable securities that are included in IFRS equity as MCEV only measures ordinary shareholder value.

2. Adjusted Group MCEV for Old Mutual

The **adjusted Group MCEV** is a management view that allows for additional, specific adjustments to the MCEV of covered business and IFRS value of non-covered business.

2.1 Components of adjusted Group MCEV

	£m	
	At 31 December 2011	At 31 December 2010
Group MCEV	**9,728**	9,901
Pro forma adjustments to bring Group investments to market value		
Adjustment to bring listed subsidiary (Nedbank) to market value[1]	**655**	715
Adjustment for value of own shares in ESOP scheme[2]	**117**	85
Adjustment for present value of Black Economic Empowerment scheme deferred consideration[3]	**270**	266
Adjustment to bring external debt to market value[4]	**24**	63
Adjusted Group MCEV	**10,794**	11,030
Adjusted Group MCEV per share (pence)	**194.1**	202.2
Total number of ordinary shares in issue at end of period less treasury shares (millions)	**5,562**	5,456

Notes:

1. Adjustment to bring listed subsidiary (Nedbank) to market value as this is included in the Group MCEV at the IFRS net asset value.
2. Release of market value of the reserve held for the Employee Share Option Plan scheme (as this is an equity settled scheme).
3. Adjustment to allow for the market value of the cash payment in relation to the Black Economic Empowerment scheme.
4. Senior and subordinated debt securities are valued at market value (for IFRS reporting, debt is valued at either book value or fair value). Where either the principal or the coupon of the debt security has been swapped into an alternate currency, the mark to market value of this derivative instrument has not been included in the value of the debt, however it is included in the Net other business value (within the net investment hedge reserve). Detail relating to the market value of debt can be found in MCEV note A2(r) of the 2011 Annual Report & Accounts.

2.2 Sources of Adjusted Group MCEV

	£m			
		At 31 December 2011		At 31 December 2010
MCEV of the covered business				
Adjusted net-worth[1]	**2,676**		3,351	
Value of in-force business	**4,536**		4,164	
		7,212		7,515
Adjusted net worth of asset management and other businesses[2,3]	**1,955**		1,939	
Value of the banking business	**3,286**		3,603	
Value of the general insurance business	**294**		409	
Net other business[4]	**175**		42	
		5,710		5,993
Adjustment for present value of Black Economic Empowerment scheme deferred consideration	**270**		266	
Adjustment for value of own shares in ESOP schemes	**117**		85	
		387		351
Market value of perpetual preferred securities	**(465)**		(449)	
Market value of perpetual preferred callable securities	**(605)**		(598)	
Market value of subordinated debt	**(1,445)**		(1,782)	
		(2,515)		(2,829)
Adjusted Group MCEV		**10,794**		11,030

Adjusted Group MCEV is therefore composed of:

	2011	2010
Covered operations	**67%**	68%
Non-covered operations	**53%**	54%
Net financial items	**(20%)**	(22%)
	100%	100%

Notes:

1. Adjusted net worth is calculated after the elimination of inter-company loans.
2. For Nordic, this includes the adjusted net worth of Nordic holding companies that are classified as non-covered business, net of the holding companies' investment in Group subsidiaries.
3. Asset management assets consist of USAM (£1,270m), Emerging Markets (£499m), and Europe (£186m).
4. Includes any other business that is not included within the main lines of business – see 2.3 below.

2.3 Net other business

Net other business includes the following main components:

Old Mutual plc Head Office IFRS NAV	This is net of Group adjustments (goodwill and other intangible adjustments).
External debt adjustments	This is an adjustment to include the IFRS value of subordinated debt (relating to OMLAC(SA), Skandia and USAM) that has been issued by business units as this is not included in the Old Mutual plc Head Office IFRS NAV.
Consolidation adjustments	Adjustments relating to the Old Mutual plc portion of the intercompany transactions where there is a different treatment for these transactions under MCEV and IFRS.
Other entities	Entities not included elsewhere in the MCEV submission, but included in the IFRS submissions (for example, inclusion of other entities allowed for in the Group's IFRS valuation)
Adjustment for perpetual preferred callable securities	This adjustment deducts the perpetual preferred callable securities that are included in IFRS equity as MCEV only measures ordinary shareholders' value.
Adjustment for the IFRS value of debt	Contra-entry for Group debt disclosed separately in Adjusted Group MCEV.

3. Operating Group MCEV earnings compared to IFRS adjusted operating profit

IFRS adjusted operating profit (IFRS AOP) is largely based on short term operating experience in the reporting period plus an adjustment for shareholder net worth long-term investment returns (LTIR).

Operating MCEV earnings are also based on short term operating experience in reporting period, but allow for changes in long term expectations of future earnings (changes in VIF) and are usually presented on a post tax basis.

IFRS AOP is broadly comparable to the ANW component of MCEV earnings, although IFRS AOP includes the impact of changes in intangible assets (e.g. deferred acquisition costs (DAC) and deferred fee income (DFI)), which are excluded from operating MCEV earnings.

It is worth noting the following:

<table>
<tr><td>New business</td><td>The value of new business includes all point-of-sale cash flows related to business written. The comparable measure under IFRS AOP is expected to be lower than the ANW given the impact of DAC and DFI capitalisation.</td></tr>
<tr><td>Expected return</td><td>Expected return is broadly comparable between IFRS AOP and operating ANW earnings. However:
For IFRS AOP this includes the LTIR which has different expected return assumptions compared to ANW; and
The starting net worth differs between the two bases.</td></tr>
<tr><td>Economic variances</td><td>Variances on policyholder assets and reserves are included in IFRS AOP, but excluded from operating MCEV earnings. For example, for unit-linked business, the following variances would be expected in relation to funds under management:
Variances between the assumed rate of return on funds under management and the actual return. For operating MCEV earnings, this is treated as an economic variance however it is included in IFRS AOP.
Variances between the assumed rebate rate and the actual rebate rate (this relates to a proportion of the funds under management). Under IFRS AOP, this is treated as an economic variance and included in IFRS AOP. For MCEV, it is treated as an experience variance and therefore is included in operating earnings.</td></tr>
<tr><td>Tax variance</td><td>Tax variance is broadly comparable on the two reporting bases with any variance being largely due to differing cashflows.</td></tr>
<tr><td>Non-covered business</td><td>Nedbank, M&F and asset management companies are valued on an IFRS basis under MCEV, and hence the earnings on both bases should be equivalent.</td></tr>
<tr><td>Other shareholders’ income & expenses</td><td>This is lower on an MCEV basis than on an IFRS basis due to the notional allocation of c.30% of the holding company’s recurring expenses to covered business VIF.</td></tr>
<tr><td>Non-core/ discontinued</td><td>Bermuda is treated as non-core and Nordic is treated as non-core discontinued. These are excluded from IFRS AOP, but are included in MCEV operating earnings.</td></tr>
</table>

The table below shows a reconciliation between operating MCEV earnings and IFRS AOP on long-term business for Old Mutual's long-term savings division for the year ended 31 December 2011.

£m	Emerging Markets	Retail Europe	Wealth Management	Total Long-Term Savings
Operating MCEV earnings (after tax)	**349**	**19**	**184**	**552**
Remove VIF component of MCEV earnings (after tax)	(54)	7	(11)	(58)
ANW component of operating MCEV earnings (after tax)	**295**	**26**	**173**	**494**
Add back total MCEV tax	119	5	38	162
Other items	41	12	(29)	24
IFRS AOP on long-term business	**455**	**43**	**182**	**680**

Notes:

- The other items for Emerging Markets will be largely differences between LTIR and MCEV risk-free and expected returns, tax timing and allocation differences.
- For Retail Europe the other items are mainly changes in the cost of non-hedgeable risks.
- For Wealth Management the other items are mainly policyholder tax smoothing.

4. Old Mutual's MCEV approach

Equity volatilities: Bermuda	Old Mutual Approach: Apply at-the-money implied equity volatilities in determining the value of financial options and guarantees. For open books of business, this approach may be considered to be conservative. The majority of contracts in force in the Bermuda business are in the money and implied equity volatilities are expected to be lower for an in-the-money put option than an at-the-money put option.
Reference rate: European market	Old Mutual Approach: We do not apply an illiquidity premium or include an allowance for a countercyclical premium to the reference rate as the business consists of largely unit-linked business with relatively immaterial annuity components. Industry practice regarding the allowance for illiquidity within the reference rate is evolving with the emergence of Solvency II guidance: ○ The 50:40 CFO/CRO Forum formula to be used to calculate the illiquidity premium proposed in the QIS5 technical specifications; ○ The proposal to make an explicit allowance for the impacts of current sovereign debt market conditions as a component of the reference rate. This approach would be less cautious than the approach currently documented in the MCEV Principles. These amendments are currently not included within the MCEV Principles[2].
Reference rate: Emerging markets	Old Mutual Approach: For non-profit annuities and fixed bonds, include an illiquidity premium allowance in the reference rate. A covered bond approach is applied, to reflect the illiquidity premium component in non-government bond spreads over swap rates. Besides the covered bond approach the following methods are also widely used: ○ decomposition method and, ○ the CDS negative basis method. While these approaches are appropriate for developed markets, there are limitations to using these in emerging markets. For example the market may not be sufficiently deep and liquid; and there may not be sufficient reliable market data to apply the methodology appropriately.
Cost of residual non-hedgeable risk (CNHR)	Old Mutual Approach: The CNHR is calculated using a cost of capital approach. For the bulk of the business the risk capital measure is determined using an internal economic capital model based on appropriate shock scenarios consistent with a 99.5% confidence level over a one-year time horizon. Non-hedgeable risks include liability, business risks and non-hedgeable financial risks that have not been allowed for in the PVFP or elsewhere in the MCEV reserves. Other South African insurers do not explicitly reserve for these items but under future regulation they are likely to be taken into account. A 99.5% confidence level over a one-year time horizon is consistent with a 1 in 200 year shock event. Further detail relating to the CNHR and the capital held in respect of non-hedgeable risk is included in MCEV note A2(i) of the 2011 Annual Report and Accounts.

[2] Market Consistent Embedded Value Principles issued in October 2009 by the European CFO Forum

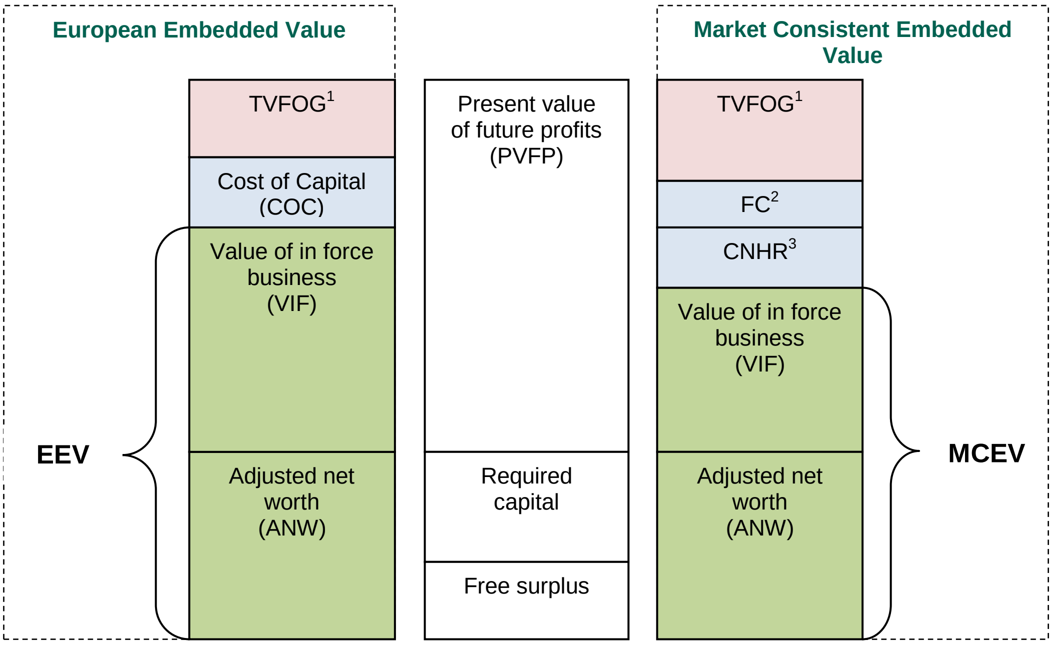
Group operating recurring expenses	Old Mutual Approach: Allocate to the covered business the portion of the Group operating expenses (including those relating to the holding company) relevant to the covered business VIF (at 31 December 2011 this is c.30%). No allocation is made to the non-covered business, and all remaining holding company expenses are included in "Other shareholders' (expenses)/income". This approach is consistent with the method adopted by most European MCEV insurance groups. An alternate approach that is generally favoured by South African insurers is the allocation of all holding company recurring expenses to all businesses (covered and non-covered). This results in lower holding company expenses disclosed at a group level with corresponding lower earnings for all businesses. Other South African companies also net off certain expenses against investment income which results in them disclosing lower holding company expenses at a group level.
Negative Rand reserves (NRRs)[3]	Old Mutual Approach: NRRs are used by the South African regulated life business, OMLAC(SA), to eliminate the effect of acquisition costs (i.e. initial commission and set up costs) associated with writing pure protection business and the expenses associated with selling recurring premium investment business. OMLAC(SA) mitigates the loss at inception for these lines of business using the NRRs, resulting in a lower level of profit emergence in the future. An alternate approach allowed under South African statutory regulations would be to zeroise all NRRs. This would result in a different profit profile, with a loss recognised at inception and a higher level of profit emergence in the future. The different approaches do not change the underlying profitability of the business, only the profile of profit emergence over time. It is worth noting the following when comparing results between insurers using the different approaches: o Expected transfer between VIF and ANW: Should an insurer mitigate the impact of acquisition costs (for the relevant lines of business), i.e. set up a NRR for new business, the negative ANW impact of new business will be reduced and the VIF will be less positive than if the full NRR had been zeroised. This implies a smaller expected transfer of future profits from the VIF to ANW over the life of the policy and a capitalisation of future expected profitability at policy inception. However the total VNB should be consistent under either approach. o New business margins: These should not be affected by the treatment of the NRRs as all profits related to new business are taken into account in the numerator irrespective of the method applied. o Future experience variances: Where an insurer has used the NRR to mitigate the impact of acquisition costs, there will be additional volatility in the future experience variances for the ANW component where actual experience is different to that assumed in determining the NRR.
Use of opening Assumption for calculation of variances on VNB	Old Mutual retains the opening assumption basis for calculating variances because it provides a stable known basis at the start of the year against which performance can be measured. In Europe this basis is not unusual in calculating VNB. To assist comparison with South African peers we also disclose a VNB sensitivity using closing economic assumptions.

[3] The value of a life insurance contract will be negative if the present value of future premiums and fee income exceeds the value of the benefits and expenses. This produces a negative reserve.

5. The differences between EEV and MCEV

5.1 Components of EEV and MCEV

The diagram below shows the component parts of the EEV and MCEV. The scale is not necessarily representative of the scale of charges which depends, amongst other things, on risk discount rates and investment assumptions.



Definitions:

1. TVFOG: time value of financial options & guarantees
2. FC: frictional costs
3. CNHR: cost of non-hedgeable risk

5.2 Non-financial risks

Allowance for risk	EEV	MCEV
Non-economic assumptions	Best estimate assumptions based on company experience and industry data.	Best estimate assumptions based on company experience and industry data.
Uncertainty	Implicit allowance within risk discount rate.	Explicit allowance for cost of residual non-hedgeable risks (mainly non-financial risks such as operational risks).
Shareholders capital costs	Cost of required capital.	Frictional costs defined as investment management expenses and tax on investment return of 'locked-in' shareholders' funds.

5.3 Moving from an EEV to an MCEV basis

Step	Impact on embedded value (EV)
1. Release of cost of required capital under EEV	**Increase**: Removing a negative component from the EV.
2. Apply market consistent economic assumption changes:	
○ Replace risk discount rate with risk-free rates	**Increase:** Discounting profits using a lower rate, hence increasing the present value.
○ Replace real-world EEV investment return assumptions with risk-free rates	**Decrease:** Assuming assets earn the risk free rate, which is lower than the real-world investment return assumption.
○ Allow for the time value of financial options and guarantees (TVFOG) on a fully market consistent basis.	**Decrease**: To the extent of the difference in bases used.
3. Introduce allowance for frictional costs (FC).	**Decrease**: This is not allowed for under EEV, hence will decrease the EV.
4. Introduce allowance for cost of residual non-hedgeable risks.	**Decrease**: This is not allowed for under EEV, hence will decrease the EV.