MCEV disclosure for covered business in Emerging Markets

For the year ended 31 December 2014

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MCEV disclosure for covered business in Emerging Markets

For the year ended 31 December 2014

1. Analysis of covered business MCEV

The following section provides a summary of the components of MCEV for the covered business in Emerging Markets.

Components of MCEV for covered business

		Rm
	At	At
Emerging Markets	**31 December 2014**	31 December 2013
Adjusted net worth	**31,442**	28,262
Free surplus	**11,219**	8,854
Required capital	**20,223**	19,408
Value of in-force	**24,502**	23,210
Present value of future profits	**30,736**	28,934
Frictional costs	**(3,749)**	(3,603)
Cost of residual non-hedgeable risks	**(2,485)**	(2,121)
MCEV	**55,944**	51,472

MCEV increased by 9% compared to 31 December 2013 due to higher operating earnings and positive economic variances, partly offset by net transfers in the form of dividend payments and other capital transfers. Operating earnings were higher mainly as a result of a higher expected return from existing business and positive mortality experience and assumption changes, partially offset by increased expenses, some adverse persistency experience and a decision to share a portion of the positive mortality assumption change with customers.

Analysis of change for covered business for year ended 31 December 2014

Rm

	Year ended 31 December 2014				
	Free surplus	Required capital	Adjusted net worth	Value of in-force	MCEV
Opening MCEV	8,854	19,408	28,262	23,210	51,472
New business value	(2,116)	1,577	(539)	2,477	1,938
Expected existing business contribution (reference rate)	456	902	1,358	1,838	3,196
Expected existing business contribution (in excess of reference rate)	63	155	218	290	508
Transfers from VIF and required capital to free surplus	5,422	(2,149)	3,273	(3,273)	-
Experience variances (excluding development costs)	319	(130)	189	(359)	(170)
Experience variances - development costs	(412)	-	(412)	3	(409)
Assumption changes	912	138	1,050	(158)	892
Other operating variance	(845)	(1)	(846)	(9)	(855)
Operating MCEV earnings	3,799	492	4,291	809	5,100
Economic variances	(172)	211	39	459	498
Other non-operating variance	54	-	54	138	192
Total MCEV earnings	3,681	703	4,384	1,406	5,790
Closing adjustments	(1,316)	112	(1,204)	(114)	(1,318)
Capital and dividend flows	(1,393)	19	(1,374)	-	(1,374)
Foreign exchange variance	77	93	170	55	225
Other[1]	-	-	-	(169)	(169)
Closing MCEV	11,219	20,223	31,442	24,502	55,944
Return on MCEV (RoEV)% per annum[2]					9.9%

[1]Other relates to the migration of OM Wealth business onto a new platform (shift from covered to non-covered business) and the first time inclusion of VIF for certain entities (OMART, Namibia OMF and Ghana).

[2]Return on MCEV is calculated as the operating MCEV earnings after tax divided by opening MCEV.

Rm

	Year ended 31 December 2014		
	Adjusted net worth	Value of in-force	MCEV
Experience variances (excluding development costs)	189	(359)	(170)
Persistency	(12)	(186)	(198)
Risk	837	(76)	761
Expenses	(271)	(31)	(302)
Other	(365)	(66)	(431)
Assumption changes	1,050	(158)	892
Persistency	(520)	(73)	(593)
Risk	1,579	(90)	1,489
Expenses	(9)	5	(4)

Rm

	Year ended 31 December 2015				
	Free surplus	Required Capital	Adjusted net worth	Value of in-force	MCEV
Expected existing business contribution (reference rate)	623	1,085	1,708	2,230	3,938
Expected existing business contribution (in excess of reference rate)	88	158	246	269	515

MCEV disclosure for covered business in Emerging Markets

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New business: VNB decreased by 5% compared to December 2013 despite higher sales volumes as a result of a reduction in new business margins. Margins were lower as a result of a higher new business strain and a less profitable mix of business. New business investment in growing certain sales forces was greater than the in-force value created in 2014. Some of the benefit of this investment is expected to be realised in the future. The adverse effect of business mix in 2014 was largely in Namibia where particularly strong high margin Corporate Segment smoothed bonus sales in 2013 were not repeated, and in South Africa where there was a higher proportion of lower margin single premium compared to higher margin recurring premium sales in Retail Affluent.

Experience variances: There were negative experience variances of R170 million, due to persistency losses in Mass Foundation Cluster and Corporate Segment, some expense losses and the unfavourable impact of "other" experience variances. However there were strong positive mortality experience variances across all segments. The expense losses were mainly due to higher central operating costs, related to supporting the Emerging Markets business. "Other" experience variances were as a result of a decision to reduce certain product fees in Retail Affluent so as to provide better value for money to clients and improve competitiveness.

Development costs: These costs are mainly in respect of establishing and growing new businesses in Africa and initiatives relating to new product offerings in South Africa.

Operating assumption changes: The positive operating assumption changes are mainly as a result of positive mortality assumption changes, in particular a reduction in mortality rates on the Mass Foundation Cluster risk book. These were partly offset by negative persistency assumption changes.

Other operating variances: In addition to the model changes and improvements made in the first half of the year, we decided to increase cover levels (2014 increases plus a provision for increases in future years) in the Mass Foundation Cluster businesses in South Africa and Namibia following continued favourable mortality experience. This reduced MCEV by R553 million. We are taking the opportunity to share some of the mortality assumption change with policyholders by granting special cover increases on cover review dates over the next five years.

Economic variances: Positive economic variances are mainly due to favourable investment performance on policyholder funds, particularly in South Africa, Namibia and Malawi, partly offset by negative investment returns on equities in Zimbabwe. Further disclosure on investment variances is included in the appendix.

Other non-operating variances: A positive variance from an increase in the assumed long-term expense relief ratio was partly offset by making provision for the expected impact of changes to the taxation of income protection benefits.

Closing adjustments: Significant net transfer items relate to net dividends paid from South Africa, Namibia and Zimbabwe, the removal of the non-life portion of the subsidiaries included in MCEV in 2013, the issue of additional subordinated debt in South Africa and the purchase of the Faulu operations in Kenya.

Analysis of change for covered business for the year ended 31 December 2013

Rm

	Year ended 31 December 2013				
	Free surplus	Required capital	Adjusted net worth	Value of in-force	MCEV
Opening MCEV	7,231	18,074	25,305	20,367	45,672
New business value	(2,349)	1,822	(527)	2,570	2,043
Expected existing business contribution (reference rate)	311	736	1,047	1,506	2,553
Expected existing business contribution (in excess of reference rate)	51	147	198	254	452
Transfers from VIF and required capital to free surplus	4,813	(1,959)	2,854	(2,854)	-
Experience variances (excluding development costs)	170	103	273	10	283
Experience variances - development costs	(257)	-	(257)	5	(252)
Assumption changes	143	(34)	109	(295)	(186)
Other operating variance	(296)	25	(271)	343	72
Operating MCEV earnings	2,586	840	3,426	1,539	4,965
Economic variances	2,064	242	2,306	1,316	3,622
Other non-operating variance	13	-	13	(137)	(124)
Total MCEV earnings	4,663	1,082	5,745	2,718	8,463
Closing adjustments	(3,040)	252	(2,788)	125	(2,663)
Capital and dividend flows	(2,921)	98	(2,823)	-	(2,823)
Foreign exchange variance	258	154	412	110	522
Other[1]	(377)	-	(377)	15	(362)
Closing MCEV	8,854	19,408	28,262	23,210	51,472
Return on MCEV (RoEV)% per annum[2]					11.0%

[1]Other relates to the impact of including certain African entities (Zimbabwe, Kenya, Malawi, Swaziland and Nigeria) on an MCEV basis and an adjustment to allow for non-controlling interests in Zimbabwe.

[2]Return on MCEV is calculated as the operating MCEV earnings after tax divided by opening MCEV.

Rm

	Year ended 31 December 2013		
	Adjusted net worth	Value of in-force	MCEV
Experience variances (excluding development costs)	273	10	283
Persistency	(82)	(46)	(128)
Risk	527	75	602
Expenses	(243)	(10)	(253)
Other	71	(9)	62
Assumption changes	109	(295)	(186)
Persistency	(238)	(138)	(376)
Risk	69	(22)	47
Expenses	278	(135)	143

2. New business results

The following section provides a summary of the new business information for Emerging Markets.

Value of new business and new business profitability

The tables below set out an analysis of the value of new business (VNB) after tax. New business profitability is measured by the ratio of the VNB to the present value of new business premiums (PVNBP), and shown under PVNBP margin below. Annual Premium Equivalent (APE) is calculated as recurring premiums plus 10% of single premiums.

Emerging Markets Rm

	Annualised recurring premiums	Single premiums	PVNBP	PVNBP capitalisation factors[1]	APE	VNB	PVNBP margin
Covered business							
31 December 2014	**6,205**	**26,248**	**57,533**	**5.0**	**8,830**	**1,938**	**3.4%**
31 December 2013	5,360	22,843	51,470	5.3	7,645	2,043	4.0%

[1]The PVNBP capitalisation factors are calculated as follows: (PVNBP - single premiums)/annualised recurring premiums.

Rest of Africa life business premiums

The following amounts are included in respect of the life businesses in Namibia, Zimbabwe, Malawi, Kenya, Swaziland, Nigeria and Ghana in the information reported above.

Rest of Africa Rm

	Annualised recurring premiums	Single premiums	PVNBP	PVNBP capitalisation factors	APE	VNB	PVNBP margin
Covered business							
31 December 2014	**628**	**1,452**	**4,463**	**4.8**	**773**	**246**	**5.5%**
31 December 2013	526	1,917	4,364	4.7	718	321	7.3%

The new business figures in the table above include renewal premiums for the year ended 31 December 2013. As from 2014, these new business figures are reported excluding renewal premiums.

Additional new business written by Emerging Markets

New business single premiums of R2,745 million (2013: R3,048 million), annualised recurring premiums of R602 million (2013: R492 million), and APE of R877 million (2013: R797 million), in respect of the life business in India and China for the year ended 31 December 2014 have been excluded from the above tables, as these businesses are not modelled on an MCEV basis.

The value of new individual unit trust linked retirement annuities and pension fund asset management business written by the Emerging Markets long-term business of R14,073 million (2013: R15,263 million) is excluded from VNB (as well as APE and PVNBP) above as the profits in this business arise in the asset management business.

The new business figures presented in this section exclude premium increases arising from indexation arrangements in respect of existing business, as these are already included in the value of in-force business.

Drivers of new business value for covered business (PVNBP margin)

		%
	31 December 2014	31 December 2013
Margin at the end of comparative financial year	**4.0**	4.1
Change in volume	**(0.6)**	0.1
Change in country and product mix	**(0.4)**	-
Change in operating assumptions	**0.1**	(0.2)
Change in economic assumptions	**0.1**	0.1
Change in tax/regulation	**0.2**	(0.1)
Margin at the end of the financial year	**3.4**	4.0

An explanation of the drivers of new business margins is included in Section 1. Change in volume incorporates increases in advisor numbers, which are expected to improve volumes in future.

3. MCEV sensitivity information

The tables below show the sensitivity of the MCEV, the value of in-force business and the value of the new business for the year ended 31 December 2014 and the year ended 31 December 2013 to the following:

- **Economic assumptions 100bps increase/decrease**: Increasing/decreasing all pre-tax investment and economic assumptions (projected investment returns and inflation) by 100bps, with credited rates and discount rates changing commensurately.
- **Equity/property market value 10% increase/decrease**: Equity and property market value increasing/decreasing by 10%, with all pre-tax investment and economic assumptions unchanged.
- **10bps increase of liquidity spreads**: Recognising the present value of an additional 10bps of liquidity spreads assumed on corporate bonds over the lifetime of the liabilities (annuities and Fixed Bonds only), with credited rates and discount rates changing commensurately.
- **50bps contraction on corporate bond spreads**
- **25% increase in equity/property and swaption implied volatilities**: 25% multiplicative increase in implied volatilities.
- **10% decrease in discontinuance rates/10% decrease in maintenance expenses**: Maintenance expense levels decreasing by 10%, with no corresponding decrease in policy charges.
- **5% decrease in mortality/morbidity rates**: Mortality and morbidity assumptions for assurances decreasing by 5%, with no corresponding decrease in policy charges.
- **5% decrease in annuitant mortality assumption**: Mortality assumption for annuities decreasing by 5%, with no corresponding increase in policy charges.
- **VNB 10% increase in acquisition expenses**: For value of new business, acquisition expenses other than commission and commission-related expenses increasing by 10%, with no corresponding increase in policy charges.
- **VNB on closing economic assumptions**: Value of new business calculated on economic assumptions at the end of the reporting period.
- **Minimum capital requirement**: Required capital equal to the minimum statutory requirement.
- **NHR capital diversification**: Residual non-hedgeable risk capital reduced to incorporate diversification benefits between hedgeable and non-hedgeable risks for covered business.

For each sensitivity illustrated, all other assumptions have been left unchanged except where they are directly affected by the revised conditions. Sensitivity scenarios therefore include consistent changes in cash flows directly affected by the changed assumption(s), for example future bonus participation in changed economic scenarios.

		Rm
MCEV	**31 December 2014**	31 December 2013
Central assumptions	**55,944**	51,472
Value given changes in:		
Economic assumptions 100bps increase	**55,520**	50,738
Economic assumptions 100bps decrease	**56,279**	52,013
Equity/property market value 10% increase	**57,431**	53,084
Equity/property market value 10% decrease	**54,447**	49,846
10bps increase of liquidity spreads	**56,092**	51,577
50bps contraction on corporate bond spreads	**56,095**	51,680
25% increase in equity/property implied volatilities	**54,809**	50,271
25% increase in swaption implied volatilities	**55,923**	51,246
10% decrease in discontinuance rates	**57,233**	52,578
10% decrease in maintenance expenses	**57,849**	53,357
5% decrease in mortality/morbidity rates	**57,685**	53,109
5% decrease in annuitant mortality assumption	**55,893**	51,400
Minimum capital requirement	**56,638**	52,379
NHR capital diversification	**56,364**	51,748

VIF	31 December 2014	31 December 2013
	Rm	
Central assumptions	**24,502**	23,210
Value given changes in:		
Economic assumptions 100bps increase	**24,065**	22,464
Economic assumptions 100bps decrease	**24,852**	23,765
Equity/property market value 10% increase	**25,543**	24,207
Equity/property market value 10% decrease	**23,451**	22,199
10bps increase of liquidity spreads	**24,650**	23,315
50bps contraction on corporate bond spreads	**24,502**	23,210
25% increase in equity/property implied volatilities	**23,367**	22,009
25% increase in swaption implied volatilities	**24,481**	22,984
10% decrease in discontinuance rates	**25,791**	24,316
10% decrease in maintenance expenses	**26,407**	25,095
5% decrease in mortality/morbidity rates	**26,243**	24,847
5% decrease in annuitant mortality assumption	**24,451**	23,138
Minimum capital requirement	**25,196**	24,117
NHR capital diversification	**24,922**	23,486

VNB	31 December 2014	31 December 2013
	Rm	
Central assumptions	**1,938**	2,043
Value given changes in:		
Economic assumptions 100bps increase	**1,845**	1,962
Economic assumptions 100bps decrease	**2,014**	2,085
Equity/property market value 10% increase	**1,938**	2,043
Equity/property market value 10% decrease	**1,938**	2,043
10bps increase of liquidity spreads	**1,947**	2,054
50bps contraction on corporate bond spreads	**1,938**	2,043
25% increase in equity/property implied volatilities	**1,938**	2,043
25% increase in swaption implied volatilities	**1,938**	2,043
10% decrease in discontinuance rates	**2,365**	2,495
10% decrease in maintenance expenses	**2,098**	2,214
5% decrease in mortality/morbidity rates	**2,127**	2,262
5% decrease in annuitant mortality assumption	**1,928**	2,035
Minimum capital requirement	**1,998**	2,122
NHR capital diversification	**1,969**	2,069

4. Reconciliation of IFRS net asset value to MCEV adjusted net worth for the covered business

The table below provides a reconciliation of the IFRS net asset value (NAV) to the MCEV adjusted net worth for the covered business.

		Rm
	At 31 December 2014	At 31 December 2013
IFRS net asset value	**25,296**	21,121
Adjustment to include long-term business on a statutory solvency basis	**2,667**	2,738
Inclusion of Group equity and debt instruments held in life funds	**4,083**	5,106
Goodwill	**(129)**	(134)
Other[1]	**(475)**	(569)
Adjusted net worth attributable to ordinary equity holders of the parent	**31,442**	28,262
Value of in-force business	**24,502**	23,210
MCEV	**55,944**	51,472

[1]Adjustment to allow for non-controlling interest in Zimbabwe.

5. MCEV methodology

The following section provides information on the methodology used to calculate MCEV results. The methodology used to calculate MCEV results at 31 December 2014 is consistent with 31 December 2013 unless explicitly noted in this disclosure.

Basis of preparation and coverage

MCEV is a measure of the consolidated value of shareholders' interests in the covered business and consists of the sum of the shareholders' adjusted net worth in respect of the covered business and the value of the in-force covered business.

The Market Consistent Embedded Value Principles (Copyright © Stichting CFO Forum Foundation 2008) issued in June 2008 and updated in October 2009 by the CFO Forum (the Principles) have been used as the basis for preparing the MCEV disclosure information for the covered business in Emerging Markets.

The CFO Forum announced changes to the MCEV Principles in October 2009 to reflect inter alia the inclusion of a liquidity premium. These changes affirm that the risk free reference rate to be applied under MCEV should include both the swap yield curve appropriate to the currency of the cash flows and a liquidity premium where appropriate.

The Principles have been materially complied with in the preparation of MCEV information for the Emerging Markets business at 31 December 2014. Note however that detailed consolidated disclosure information has not been prepared for the Old Mutual Group as required by the Principles.

The covered business within certain African entities (Zimbabwe, Kenya, Malawi, Swaziland, Nigeria and Ghana) has been included on an MCEV basis, although simplified approaches have been used where appropriate to the size of the business, or where insufficient market data is available to perform full bottom-up MCEV calculations.

For the Emerging Markets business, covered business includes, where material, any contracts that are regarded by local insurance supervisors as long-term life insurance business, and other business, where material, directly related to such long-term life assurance business where the profits are included in the IFRS long-term business profits in the primary financial statements. For the life businesses in entities where the covered business is not material, the treatment within this supplementary information is the same as in the primary IFRS financial statements (i.e. expected future profits for this business are not capitalised for MCEV reporting purposes).

Some types of business are legally written by a life company, but under IFRS are classified as asset management because 'long-term business' only serves as a wrapper. This business is excluded from covered business, for example individual unit trusts and some group market-linked business written by asset management companies in South Africa through the life company as profits from this business arise in the asset management and asset administration companies.

The detailed methodology and assumptions made in presenting this information are set out in the following sections. The MCEV for Emerging Markets is presented after an adjustment to include the market value of life fund investments in Group equity and debt instruments.

Methodology

(a) Introduction

MCEV represents the present value of shareholders' interests in the earnings that are distributable from assets allocated to the in-force covered business after sufficient and appropriate allowances for the aggregate risks in the covered business. It is measured in a way that is consistent with the value that would normally be placed on the cash flows generated by these assets and liabilities in a deep and liquid market. MCEV is therefore a risk-adjusted measure to the extent that financial risk is reflected through the use of market consistent techniques in the valuation of both assets and distributable earnings and a transparent explicit allowance is made for non-financial risks.

The MCEV consists of the sum of the following components:

- Adjusted net worth (ANW), which excludes acquired intangibles and goodwill, consisting of:
  - free surplus allocated to the covered business; and
  - required capital to support the covered business.
- Value of in-force covered business (VIF).

The adjusted net worth is the market value of shareholders' assets held in respect of the covered business after allowance for the liabilities which are determined by local regulatory reserving requirements.

MCEV is calculated net of non-controlling shareholder interests and excludes the value of future new business.

(b) Free surplus

Free surplus is the market value of any assets allocated to, but not required to support, the in-force covered business. It is determined as the market value of any excess assets attributed to the covered business but not backing the regulatory liabilities, less the required capital to support the covered business.

(c) Required capital

Required capital is the market value of assets that is attributed to support the covered business, over and above that required to back statutory liabilities for covered business, whose distribution to shareholders is restricted.

For Emerging Markets, capital is determined with reference to internal management objectives. The required capital in respect of OMLAC(SA)'s covered business is partially covered by the market value of the Group's investments in banking and Property & Casualty in South Africa. On consolidation these investments are shown separately.

The table below shows the level of required local capital expressed as a percentage of the minimum local regulatory capital requirements.

		Rm
	At 31 December 2014	At 31 December 2013
Required capital (a)	**20,223**	19,408
Regulatory capital (b)	**15,561**	13,983
Ratio (a/b)	**1.3**	1.4

(d) Value of in-force (VIF) covered business

Under the MCEV methodology, VIF consists of the following components:

- Present value of future profits (PVFP) from in-force covered business; less
- Time value of financial options and guarantees; less
- Frictional costs of required capital; less
- Cost of residual non-hedgeable risks (CNHR).

Projected liabilities and cash flows are calculated net of outward risk reinsurance with allowance for default risk of reinsurance counterparties where material.

(e) Present value of future profits

The PVFP is calculated as the discounted value of future distributable earnings (taking account of local statutory reserving requirements) that are expected to emerge from the in-force covered business, including the value of contractual renewal of in-force business, on a best estimate basis where assumed earned rates of return and discount rates are equal to the risk free reference rates. This is also known as a deterministic certainty equivalent valuation of future distributable earnings. Any limitations on distribution of such earnings due to statutory or internal capital requirements are taken into account separately in the calculation of frictional costs of required capital.

PVFP captures the intrinsic value of financial options and guarantees on in-force covered business which are not included in the local statutory reserves forming part of ANW, but excludes any additional allowance for the time value of financial options and guarantees.

(f) Financial options and guarantees

Allowance is made in the determination of MCEV for the potential impact of variability of investment returns (i.e. asymmetric impact) on future shareholder cash flows of policyholder financial options and guarantees within the in-force covered business.

The time value of financial options and guarantees describes that part of the value of financial options and guarantees that arises from the variability of future investment returns on assets to the extent that it is not already included in the local statutory reserves.

The calculation of the value of financial options and guarantees (including the allowance in ANW and VIF components of MCEV) is based on market consistent stochastic modelling techniques where the actual assets held at the valuation date are used as the starting point for the valuation of such financial options and guarantees. Projected future cash flows are valued using economic assumptions such that they are valued in line with the price of similar cash flows that are traded in the capital markets.

The value of financial options and guarantees also includes allowance for potential burn-through costs on participating business, i.e. the extent to which shareholders are unable to recover a loan made to participating funds to meet either regulatory or internal capital management requirements, or the extent to which reserves are inadequate to meet benefit payments during periods of severely adverse experience.

In the generated economic scenarios, allowance is made, where appropriate, for the effect of dynamic management and/or policyholder actions in different circumstances:

- Management has some discretion in managing exposure to financial options and guarantees, particularly with participating business. Such dynamic management actions are reflected in the valuation of financial options and guarantees provided that such discretion:
  - is consistent with established and justifiable practice taking into account policyholders' reasonable expectations and with due consideration of the Principles and Practices of Financial Management (PPFM) in the South African business;
  - is subject to any contractual guarantees and regulatory or legal constraints; and
  - has been passed through an appropriate approval process by the local Executive team and the Board, where applicable.

  Assumptions that depend on the market performance (such as bonus rates) are set relative to the risk free reference rates (subject to contractual guarantees) and assuming that all market participants are subjected to the same market conditions.
- Where credible evidence exists that persistency rates are linked to economic scenarios, allowance is made for dynamic policyholder behaviour in response to changes in economic conditions.
- Modelled dynamic management and policyholders' actions include the following:

- changes in future bonus rates subject to contractual guarantees, including removing all or part of previously declared non-vested balances where circumstances warrant such action;
- dynamic guaranteed annuity option take-up rates for the South African business driven by changes in economic conditions and management actions; and
- changes in the surrender values.

In determining the value of financial options and guarantees, an appropriate number of simulations are run to ensure that a reasonable degree of convergence of results has been obtained.

In Emerging Markets, the financial options and guarantees mainly relate to the guaranteed portion of smoothed bonus business, maturity guarantees and guaranteed annuity options.

As required by the applicable Actuarial Society of South Africa practice note, the value of the financial options and guarantees included in the statutory reserves in the South African businesses has been valued using a risk-neutral market consistent asset model, and is referred to as the 'Investment Guarantee Reserve' (IGR). As the value of financial options and guarantees is held in local statutory reserves that form part of ANW, no further allowance is needed for the time value of financial options and guarantees.

The IGR includes an explicit discretionary margin to allow for the sensitivity of the reserve to market movements, including interest rates, equity levels and the volatility implicit in the pricing of derivative instruments in these markets. The value of future anticipated releases of the discretionary margin is included in the VIF.

(g) Frictional costs of required capital

From the shareholders' perspective there is a cost due to restrictions on the distribution of required capital that is locked in entities within the Group. Where material, an allowance has been made for the frictional costs in respect of the taxation on investment return (income and capital gains) and investment costs on the assets backing the required capital for covered business. The allowance for taxation is based on the taxation rates applicable to investment earnings on assets backing the required capital.

The run-off pattern of the required capital is projected on an approximate basis over the lifetime of the underlying risks in line with drivers of the capital requirement. The same drivers are used to split the total required capital between existing business and new business.

The allowance for frictional costs is independent of the allowance for the cost of residual non-hedgeable risks as described below.

(h) Cost of residual non-hedgeable risks

Sufficient allowance for the majority of financial risks has been made in the PVFP and the time value of financial options and guarantees using techniques that are similar to the type of approaches used in capital markets. The CNHR for Old Mutual Zimbabwe, however, includes an allowance for financial risks that are not allowed for in the PVFP due to insufficient market data.

In addition, the modelling of some non-hedgeable non-financial risks is incorporated as part of the calculation of the PVFP (for example, to the extent that expected operational losses are incorporated in the maintenance expense assumptions) or the time value of financial options and guarantees (for example, dynamic policyholder behaviour such as the interaction of the investment scenario and the persistency rates). Residual non-financial risks include, for example, liability risks such as mortality, longevity and morbidity risks; business risks such as persistency, expense and reinsurance credit risks; and operational risk.

An allowance is made in the CNHR to reflect uncertainty in the best estimate of shareholder cash flows as a result of both symmetric and asymmetric non-hedgeable risks since these risks cannot be hedged in deep and liquid capital markets and are managed, inter alia, by holding risk capital. With the exception of operational risk, most residual non-hedgeable risks have a symmetric impact on shareholder value, i.e. commensurate upside and downside impacts.

The cost of residual non-hedgeable risks (CNHR) is calculated using a cost of capital approach, i.e. it is determined as the present value of capital charges for all future non-hedgeable risk capital requirements until the liabilities have run off. The capital charge in each year is the product of the projected expected non-hedgeable risk capital held after allowance for some diversification benefits and the cost of capital charge. The cost of capital charge therefore represents the return above the risk free reference rates that the market is deemed to demand for providing this capital.

The residual non-hedgeable risk capital measure is determined using an internal capital model based on appropriate shock scenarios consistent with a 99.5% confidence level over a one-year time horizon, and is calculated using the same methodology used to determine economic capital. The internal capital model makes allowance for certain management actions, such as reductions in bonus rates, where deemed appropriate. The residual non-hedgeable risk capital makes an allowance for non-linearities between hedgeable and non-hedgeable risks.

The following treatment is applied for diversification benefits in determining the residual non-hedgeable risk capital:

- Diversification benefits within the non-hedgeable risks of the covered business are recognised.
- No diversificaiton benefits are recognised between hedgeable and non-hedgeable risks of the covered business.
- No diversification benefits are recognised between covered and non-covered business.

A cost of capital charge of 2.0% has been applied to residual symmetric and asymmetric non-hedgeable capital over the life of the contracts. This rate is derived by considering a market based view of required return on equity for the covered business, and then deducting risk free investment returns, frictional costs and an allowance for franchise value.

The amount of diversified economic capital held in respect of residual non-hedgeable risks in Emerging Markets is R15,603 million at 31 December 2014 (R14,041 million at 31 December 2013).

(i) Participating business

For participating business in Emerging Markets, the method of valuation makes assumptions about future bonus rates and the determination of profit allocation between policyholders and shareholders. These assumptions are made on a basis consistent with other projection assumptions, especially the projected future risk free investment returns, established Company practice (with due consideration of the PPFM for South African business), past external communication, any payout smoothing strategy, local market practice, regulatory/contractual restrictions and bonus participation rules.

Where current benefit levels are higher than can be supported by the existing fund assets together with projected investment returns, a downward ‘glide path’ in benefit levels is projected so that the policyholder fund would be exhausted on payment of the last benefit.

(j) Taxation

In valuing shareholders’ cash flows, allowance is made in the cash flow projections for taxes in the relevant jurisdiction affecting the covered business. Tax assumptions are based on best estimate assumptions, applying current local corporate tax legislation and practice together with known future changes and taking credit for any deferred tax assets.

The value of deferred tax assets is partly recognised in the MCEV. Typically those tax assets are expected to be utilised in future by being offset against expected tax liabilities that are generated on expected profits emerging from in-force business. MCEV may therefore understate the true economic value of such deferred tax assets because it does not allow for future new business sales which could affect the utilisation of such assets.

(k) New business and renewals

The market consistent value of new business (VNB) measures the value of the future profits expected to emerge from all new business sold, and in certain cases from premium increases to existing contracts, during the reporting period after allowance for the time value of financial options and guarantees, frictional costs and the cost of residual non-hedgeable risks associated with writing the new business.

VNB includes contractual renewal of premiums and recurring single premiums, where the level of premium is pre-defined and is reasonably predictable, and changes to existing contracts where these are not variations allowed for in the PVFP. Non-contractual increments are treated similarly where the volume of such increments is reasonably predictable or likely (for example, where premiums are expected to increase in line with salary or price inflation).

Any variations in premiums on renewal of in-force business from that previously anticipated including deviations in non-contractual increases, deviations in recurrent single premiums and re-pricing of premiums for in-force business are treated as experience variances or economic variances on in-force business and not as new business.

The key principles applied in calculating VNB are noted below.

- Economic assumptions at the start of the reporting period are used, except for OMLAC(SA)’s Non-Profit Annuities products where point of sale assumptions are used that are consistent with the pricing basis.
- Demographic and operating assumptions at the end of the reporting period are used.
- VNB is calculated at point of sale and rolled forward to the end of the reporting period.
- Generally a stand-alone approach is used unless a marginal approach would better reflect the additional value to shareholders created through the activity of writing new business.
- Expense allowances include all acquisition expenses, including any acquisition expense overruns. Strategic business development expenses are excluded.
- VNB is calculated net of tax, reinsurance and non-controlling interests.
- Economic and operating variances are not attributed to VNB.

PVNBP is calculated at point of sale using premiums before reinsurance and applying a valuation approach that is consistent with the calculation of VNB.

6. MCEV assumptions

The following section provides details of the economic and non-economic assumptions used in the MCEV calculations. The assumptions have been derived in a consistent manner to 31 December 2013 calculations unless explicitly stated as a change in this disclosure note.

Economic assumptions

The following sections relate to the economic assumptions in South Africa. In other territories, economic assumptions are determined with reference to local economic conditions.

(a) Risk-free reference rates and inflation

The risk free reference rates, reinvestment rates and discount rates are determined with reference to the swap yield curve appropriate to the currency of the cash flows. For Emerging Markets the swap yield curve is sourced internally (using market data provided by the Bond Exchange of South Africa) and is checked for reasonability relative to the Bloomberg swap yield curve.

At 31 December 2014, a liquidity premium adjustment has been applied to OMLAC(SA)'s Immediate Annuity business and Fixed Bond business. A liquidity premium adjustment is applied to OMLAC(SA)'s Fixed Bond business as OMLAC(SA) holds a portfolio of non-government bonds which have a market yield in excess of the risk free rate and the duration of the asset portfolio and the liability duration are a good match (meaning the asset portfolio is held to maturity). Cash flows on this product are also predictable and the company has adequate liquidity to withstand a substantial increase in lapses at all durations without having to sell bonds which further strengthens the case for applying a liquidity premium.

It is the directors' view that a proportion of non-government bond spreads at 31 December 2014 is attributable to a liquidity premium rather than only to credit and default allowances and that returns in excess of swap rates can be achieved, rather than entire spreads being lost to worsening default experience. For OMLAC(SA)'s Immediate Annuity business the currency, credit quality and duration of the actual bond portfolios were considered and adjusted risk free reference rates were derived at 31 December 2014 by adding 55bps of liquidity premium for this business (2013: 50bps) to the swap rates used for setting investment return and discounting assumptions. For OMLAC(SA)'s Fixed Bond products 50bps of liquidity premium was added to the swap rates (2013: 40bps). These adjustments reflect the liquidity premium component in non-government bond spreads over swap rates that are expected to be earned on the portfolios. The liquidity premium was derived by comparing the yields of South African government bonds with bonds of similar duration issued by state-owned enterprises.

The risk free reference spot yields (excluding any applicable liquidity adjustments) at various terms are provided in the table below. Expense inflation rates have been derived by comparing real rates of return against nominal risk free rates, with adjustments for higher anticipated inflation rates where appropriate.

Risk free reference spot yields (excluding liquidity adjustments) and expense inflation

		%
	Risk-free rate	**Expense inflation**
At 31 December 2014		
1 year	**6.6**	**6.3**
5 years	**7.6**	**6.9**
10 years	**8.3**	**7.5**
20 years	**9.1**	**8.2**
At 31 December 2013		
1 year	5.7	6.8
5 years	7.7	7.6
10 years	8.8	8.3
20 years	9.7	8.9

(b) Volatilities and correlations

Where cash flows contain financial options and guarantees that do not move linearly with market movements, asset cash flows are projected and all cash flows are discounted using risk-neutral stochastic models. These models project the assets and liabilities using a distribution of asset returns where all asset types, on average, earn the same risk free reference rates.

Apart from the risk free reference spot yields specified above, other key economic assumptions for the calibration of economic scenarios include the implied volatilities for each asset class and correlations of investment returns between different asset classes.

The volatility assumptions for the calibration of economic scenarios that are used in the stochastic models are, where possible, based on those implied from appropriate derivative prices (such as equity options or swaptions in respect of guarantees that are dependent on changes in equity markets and interest rates respectively) as observed on the valuation date. However, historic implied and historic observed volatilities of the underlying instruments and expert opinion are considered where there are concerns over the depth or liquidity of the market. Where strict adherence to the above is not possible, for example where markets only exist at short durations such as the swaption market in South Africa, interpolation or extrapolation techniques, and where appropriate, historical data are used to derive volatility assumptions for the full term structure of the liabilities. Correlation assumptions between asset classes that are used in stochastic models are based on an assessment of historic relationships. Where historic data is used in setting volatility or correlation assumptions, a suitable time period is considered for analysing historic data including consideration of the appropriateness of historical data where economic conditions were materially different to current conditions.

The at-the-money annualised asset volatility assumptions of the asset classes incorporated in the stochastic models are detailed below.

ZAR volatilities[1]

Option term	1 year swap	5 year swap	10 year swap	20 year swap	Equity (total return index) %
At 31 December 2014					
1 year	**19.7**	**17.9**	**16.3**	**14.9**	**19.7**
5 years	**19.4**	**18.0**	**16.6**	**16.6**	**25.2**
10 years	**17.9**	**17.0**	**17.2**	**18.3**	**26.5**
20 years	**18.6**	**19.5**	**19.8**	**19.2**	**29.0**
At 31 December 2013					
1 year	31.7	26.2	23.8	22.2	20.7
5 years	23.6	22.6	21.0	21.4	26.2
10 years	21.3	20.1	21.0	21.5	29.0
20 years	24.6	25.0	24.4	23.2	29.6

[1]Due to limited liquidity in the ZAR swaption market, the market consistent asset model has been calibrated by extrapolating swaption and equity implied volatility data beyond a term of one year and 5 years respectively.

Changes were made to the economic scenario generator model to improve the overall fit of equity implied volatility to market inputs which is a major driver in the valuation of embedded guarantees and options. As part of these changes the calibration of swaption volatilities was also improved to provide a better fit to market inputs, which resulted in a reduction in implied swaption volatilities.

(c) Expected asset returns in excess of the risk free reference rates

The expected asset returns in excess of the risk free reference rates have no bearing on the calculated MCEV other than the calculation of the expected existing business contribution in the analysis of MCEV earnings. Real-world economic assumptions are determined with reference to one-year forward risk free reference rates applicable to the currency of the liabilities at the start of the reporting period. All other economic assumptions, for example future bonus rates, are set at levels consistent with the real-world investment return assumptions.

Pre-tax real-world economic assumptions are determined as follows:

- The equity risk premium is 3.7%.
- The cash return equals the one year risk free reference rate.
- The property risk premium is 1.5%.
- Returns on corporate bonds reference actual yields from assets held.

(d) Effective tax rates

The weighted average effective tax rates that apply to the cash flow projections in OMLAC(SA) at 31 December 2014 is 29% (December 2013: 29%).

Non-economic assumptions

The appropriate non-economic projection assumptions for future experience (e.g. mortality, persistency and expenses) are determined using best estimate assumptions of each component of future cash flows and have regard to past, current and expected future experience where sufficient evidence exists (e.g. longevity improvements and AIDS-related claims), as derived from both entity-specific and industry data where deemed appropriate. Material assumptions are actively reviewed by means of detailed experience investigations and updated, as deemed appropriate.

These assumptions are based on the covered business being part of a going concern. Favourable changes in maintenance expenses, such as productivity improvements, are generally not included beyond what has been achieved by the end of the reporting period.

The management expenses attributable to life assurance business have been analysed between expenses relating to the acquisition of new business, maintenance of in-force business (including investment management expenses) and development projects.

- All expected maintenance expense overruns affecting the covered business are allowed for in the calculations.
- The MCEV makes provision for future development costs and one-off expenses relating to in-force covered business that are known with sufficient certainty, based on three year business plans. The provision is reduced to the extent that projects have associated benefits that are directly quantifiable and are considered to emerge within a reasonable timeframe (e.g. over the business plan period).
- Unallocated Group holding company expenses have been included to the extent that they are allocated to the covered business. The future expenses attributable to the long-term business in Emerging Markets at 31 December 2014 are R172 million (R136 million at 31 December 2013). The allocation of these expenses is based on the proportion that the management expenses incurred by the covered businesses bears to the total management expenses incurred by the Group.

7. Appendix – MCEV economic variances

The following section provides additional information on the MCEV economic variances.

Analysis of economic variances

Rm

	Year ended 31 December 2014			Year ended 31 December 2013		
	Adjusted net worth	Value of in-force	MCEV	Adjusted net worth	Value of in-force	MCEV
Opening MCEV	**28,262**	**23,210**	**51,472**	25,305	20,367	45,672
Expected existing business contribution[1]	**1,576**	**2,128**	**3,704**	1,245	1,760	3,005
Other operating earnings and transfers[2]	**2,715**	**(1,319)**	**1,396**	2,181	(221)	1,960
Operating MCEV earnings	**4,291**	**809**	**5,100**	3,426	1,539	4,965
Investment variance of in-force business[3]	**538**	**697**	**1,235**	1,147	1,562	2,709
Investment variance on ANW[3]	**(495)**	**-**	**(495)**	1,032	-	1,032
Effect of economic assumption changes[3]	**(4)**	**(238)**	**(242)**	127	(246)	(119)
Other non-operating variance	**54**	**138**	**192**	13	(137)	(124)
Total MCEV earnings	**4,384**	**1,406**	**5,790**	5,745	2,718	8,463
Closing adjustments	**(1,204)**	**55**	**(1,149)**	(2,411)	110	(2,301)
Other[4]	**-**	**(169)**	**(169)**	(377)	15	(362)
Closing MCEV	**31,442**	**24,502**	**55,944**	28,262	23,210	51,472
Return on MCEV (RoEV)% per annum			**9.9%**			11.0%

[1] Consists of "reference rate" and "in excess of reference rate" expected existing business contribution.

[2] Consists of new business value, transfers from VIF to ANW, experience variances, assumption changes, and other operating variances.

[3] Reported together as "economic variances" in the MCEV analysis of change.

[4] Relates to the migration of OM Wealth business onto a new platform and the first time inclusion of VIF for certain entities (2013: the inclusion of certain African entities on an MCEV basis and an adjustment to allow for non-controlling interests in Zimbabwe).

Expected existing contribution: The impact of projecting forward MCEV from the start of the reporting period to the end of the reporting period using expected real-world rates of return, where appropriate allowance is made for market risk premiums in addition to the risk-free rate of return (9.4% p.a. total expected return has been used for South African equities over 2014).

Investment variance on in-force business: Mainly consists of the impact of higher than expected returns on policyholder funds over 2014, including:

- An increase in VIF due to higher than assumed investment returns on policyholder funds in 2014, mainly due to good equity performance; and
- Positive ANW variance due to favourable investment variances on the non-profit annuity portfolios (yield pick-up on credit assets) and the capitalisation of higher asset-based margins (based on higher fund values) which reduced liabilities.

Investment variance on ANW: Lower than expected post-tax investment return on shareholder funds following negative equity market returns in Zimbabwe and poor returns on the equity portfolio in South Africa.

Effect of economic assumption changes: Negative economic variances mainly relate to:

- Changes in the yield curve which increased guarantee costs in Corporate Segment, resulting in a decrease in the Investment Guarantee Reserve discretionary margin (and hence a reduction in VIF); and
- An update to the internal Economic Scenario Generator model used to calculate the Investment Guarantee Reserves.