MCEV disclosure for covered business in Emerging Markets

For the year ended 31 December 2016

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1 Summary of MCEV results and components of MCEV for covered business

The following section provides a summary of the headline Market Consistent Embedded Value (MCEV) results and components of MCEV for the covered business in Emerging Markets. All MCEV results are post tax and non-controlling interests, unless stated otherwise.

The MCEV for 31 December 2016 has been calculated predominantly using a bond yield curve as the reference rate. This aligns with the anticipated Solvency Assessment and Management (SAM) reporting basis, but departs from MCEV Principles.

1.1 Headline MCEV results

This section gives a high level summary of headline MCEV results, with further detailed commentary provided in section 2.

- MCEV operating earnings of R8,377 million in 2016 are 11% higher than in 2015 despite the challenging macro environment during the period.
- The overall operating return on embedded value (RoEV) has increased to 14.9% at 31 December 2016 from 13.5% at 31 December 2015. The main driver is an increase in the expected return from the higher yield curve at 31 December 2015 compared to 31 December 2014 (expected return is calculated on opening economic assumptions) along with other earnings related impacts described below.
- Covered sales are 6% above prior year (as measured by APE) with strong retail and institutional sales of our flagship Absolute Growth Portfolio smoothed bonus product. We are the market leader for smoothed bonus products in South Africa and we expect the product to continue to be attractive in the current uncertain economic environment.
- Despite the increase in covered sales, the VNB decreased by 9% compared to 2015. The reduction is mainly due to the operating assumption and methodology changes in Corporate and Mass Foundation at 31 December 2016 as well as the higher yield curve at 31 December 2015 compared to 31 December 2014 (VNB is calculated on opening economic assumptions). If VNB was calculated using closing economic assumptions (for 2015 and 2016) it would have been only marginally lower compared to 2015.
- Experience variances were positive overall, with expense, mortality, longevity and other profits being partly offset by adverse persistency and disability experience. The tough economic environment continues to put financial pressure on policyholders, and we are seeing the effect of this via a deterioration in risk and persistency experience. During the year, we have put in place a number of initiatives to help manage our persistency experience, including an ongoing focus on quality of new business, customer affordability and targeted benefit enhancements. Pricing and claims management have been strengthened to address the adverse disability experience.
- In light of our experience variances, negative persistency and positive longevity assumption changes were made in 2016. Whilst expense experience variances have been positive, we have increased the allowance for future expenses to recognise additional one-off costs as a result of Managed Separation, the costs of strategic initiatives over the business planning period and the impact of a change in our internal expense allocation basis. The assumption changes, coupled with the aforementioned management initiatives, should provide the MCEV results with a measure of resilience going forward.
- The taxation of South African life insurers was amended to introduce a separate tax fund for all new risk business sold from 1 January 2016. In this new fund, the insurer is taxed purely on the profits generated and there is no separate tax on the investment income earned in the fund. During 2016, we elected to utilise a one-off option to transfer classes of existing risk business to the new tax fund. For the business transferred, the removal of the tax on investment return earned on policyholder liabilities resulted in a one-off impact on MCEV earnings of R1.3 billion, contributing 2.3% to the uplift in the return.
- Economic variances were negative due to lower than expected investment returns in 2016, partly offset by the positive impact of a lower discount rate at 31 December 2016 compared to 31 December 2015 which increased the present value of future profits.

1.2 Components of MCEV for covered business

The MCEV increased by 5% compared to 31 December 2015 due to strong operating earnings which were partly offset by capital transfers, including net dividend payments.

The following table sets out the components of Market Consistent Embedded Value for covered business as at 31 December 2016.

		Rm
Emerging Markets	**At 31 December 2016**	At 31 December 2015
Adjusted net worth (ANW)[1]	**27,225**	25,063
Free surplus	**6,173**	5,953
Required capital	**21,052**	19,110
Value of in-force (VIF)	**31,920**	31,248
Present value of future profits (PVFP)	**37,911**	37,359
Frictional costs	**(3,672)**	(3,619)
Cost of residual non-hedgeable risks (CNHR)	**(2,319)**	(2,492)
MCEV	**59,145**	56,311

Required capital has increased since 31 December 2015 mainly due to growth in the covered business book.

Frictional costs have increased slightly since 31 December 2015 due to the increase in required capital over the year being largely offset by the lower yield curve reducing the tax-related frictional cost.

The cost of residual non-hedgeable risks (CNHR) reduced due to methodology changes offsetting the impact of the growth in the covered business book.

Movements in ANW and VIF balances are detailed in section 2.

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2 Analysis of change in MCEV

Analysis of change in MCEV (post tax and non-controlling interest) for covered business for the year ended 31 December 2016
Commentary and additional information can be found in notes 2.2 to 2.8

						Rm
						Year ended 31 December 2016
	Note	Free surplus	Required capital	Adjusted net worth	Value of in-force	MCEV
Opening MCEV		**5,953**	**19,110**	**25,063**	**31,248**	**56,311**
New business value	2.2	**(3,024)**	**1,920**	**(1,104)**	**3,277**	**2,173**
Expected existing business contribution (reference rate)		**415**	**1,267**	**1,682**	**3,132**	**4,814**
Expected existing business contribution (in excess of reference rate)		**69**	**232**	**301**	**446**	**747**
Transfers from VIF and required capital to free surplus		**6,739**	**(2,291)**	**4,448**	**(4,448)**	**-**
Experience variances	2.3	**405**	**279**	**684**	**(232)**	**452**
Development cost variances	2.4	**(270)**	**-**	**(270)**	**-**	**(270)**
Experience driven assumption changes	2.5	**(34)**	**(27)**	**(61)**	**(785)**	**(846)**
Methodology changes and management actions	2.6	**1,316**	**(314)**	**1,002**	**305**	**1,307**
Operating MCEV earnings		**5,616**	**1,066**	**6,682**	**1,695**	**8,377**
Investment variances and economic assumption changes	2.7	**(1,414)**	**1,037**	**(377)**	**(540)**	**(917)**
Regulatory and tax changes		**(135)**	**-**	**(135)**	**(190)**	**(325)**
Total MCEV earnings		**4,067**	**2,103**	**6,170**	**965**	**7,135**
Closing adjustments		**(3,847)**	**(161)**	**(4,008)**	**(293)**	**(4,301)**
Capital and dividend flows	2.8	**(3,614)**	**-**	**(3,614)**	**-**	**(3,614)**
Foreign exchange variance	2.8	**(338)**	**(291)**	**(629)**	**(246)**	**(875)**
Other[1]	2.8	**105**	**130**	**235**	**(47)**	**188**
Closing MCEV		**6,173**	**21,052**	**27,225**	**31,920**	**59,145**
Return on MCEV (RoEV)% per annum[2]						**14.9%**

[1] Other closing adjustments relate to the impact of including Colombia on an MCEV basis and the simplification of MCEV reporting in certain African entities.

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

2.1 Prior period comparatives

Analysis of change for covered business for the year ended 31 December 2015

						Rm
						Year ended 31 December 2015
	Note	Free surplus	Required capital	Adjusted net worth	Value of in-force	MCEV
Opening MCEV		11,219	20,223	31,442	24,502	55,944
New business value	2.2	(2,655)	1,951	(704)	3,098	2,394
Expected existing business contribution (reference rate)		632	1,102	1,734	2,245	3,979
Expected existing business contribution (in excess of reference rate)		87	159	246	269	515
Transfers from VIF and required capital to free surplus		5,797	(2,172)	3,625	(3,625)	-
Experience variances	2.3	436	130	566	(159)	407
Development cost variances	2.4	(494)	-	(494)	2	(492)
Experience driven assumption changes	2.5	497	61	558	(702)	(144)
Methodology changes and management actions	2.6	442	(4,069)	(3,627)	4,497	870
Operating MCEV earnings		4,742	(2,838)	1,904	5,625	7,529
Investment variances and economic assumption changes		(1,183)	1,129	(54)	(141)	(195)
Regulatory and tax changes		(30)	41	11	(14)	(3)
Total MCEV earnings		3,529	(1,668)	1,861	5,470	7,331
Closing adjustments		(8,795)	555	(8,240)	1,276	(6,964)
Capital and dividend flows		(4,722)	-	(4,722)	-	(4,722)
Foreign exchange variance		309	415	724	280	1,004
Other[1]		(4,382)	140	(4,242)	996	(3,246)
Closing MCEV		5,953	19,110	25,063	31,248	56,311
Return on MCEV (RoEV)% per annum[2]						13.5%

[1] Other closing adjustments include the liability in respect of OMLAC(SA) subordinated debt issued in 2014 which is now reflected in the Emerging Markets adjusted net worth. The associated financing costs of the subordinated debt issued in 2014 and 2015 are also included.

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

2.2 New business

Sales volumes were higher overall, mainly as a result of strong Absolute Growth Portfolio smoothed bonus, group assurance risk and umbrella fund sales in Corporate, as well as good Mass Foundation savings and risk sales. Despite higher sales volumes, however, VNB decreased by 9% and PVNBP decreased by 4% compared to 2015 mainly due to the negative impact of the higher yield curve at 31 December 2015 (as VNB and PVNBP are calculated on opening economic assumptions) and the 31 December 2016 operating assumption and methodology changes in Corporate and Mass Foundation.

The following sections provide additional detail on the drivers of new business value and new business information by Emerging Markets business segment.

(a) Drivers of new business profitability (PVNBP margin)

		%
	31 December 2016	31 December 2015
Margin at the end of comparative reporting period	**3.3**	3.4
Change in volume and new business expenses	**0.1**	(0.1)
Change in country and product mix	**(0.1)**	(0.5)
Change in operating assumptions[1]	**(0.1)**	0.5
Change in economic assumptions	**-**	-
Change in tax/regulation	**-**	-
Margin at the end of the reporting period	**3.2**	3.3

[1] Includes operating assumption changes, methodology changes and management actions and for 31 December 2015 a change in the treatment of OMUT.

Overall there is a small decrease in margin over the period.

Higher sales volumes contributed positively to the new business margin due to improved distribution efficiencies, particularly in Corporate and Mass Foundation.

The negative 0.1% change in country and product mix primarily reflects the phase in of premium increases over the year for the Mass Foundation risk book following the taxation changes in South Africa and an increased proportion of lower margin Retail Affluent savings sales in Namibia. This was largely offset by an increased proportion of higher margin smoothed bonus and group assurance sales in South Africa.

Operating assumption changes have had a small negative impact of 0.1% on PVNBP margins. This is mainly due to modelling improvements in Mass Foundation and Corporate, partly offset by lower expense assumptions in Namibia.

Although the increase in the yield curve between 31 December 2014 and 31 December 2015 reduces the value of new business, the impact on the margin is muted as the higher yield curve reduces the PVNBP by a similar proportion overall.

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(b) Value of new business and new business profitability

The tables below provide information on the value of new business and new business profitability metrics by Emerging Markets business segment.

Emerging Markets covered business new business

Year ended 31 December 2016 **Rm**

	Annualised recurring premiums	Single premiums	PVNBP	PVNBP capitali-sation[1]	APE[2]	VNB	PVNBP margin
South Africa	6,251	34,314	60,613	4.2	9,683	**2,006**	3.3%
Retail Affluent	1,737	19,439	26,465	4.0	3,681	**450**	1.7%
Mass Foundation	3,529	38	11,240	3.2	3,533	**1,055**	9.4%
Corporate	985	20,516	28,587	8.2	3,037	**501**	1.8%
Eliminations of intra-Group sales[3]		(5,679)	(5,679)		(568)		
Rest of Africa	895	2,002	5,504	3.9	1,095	**210**	3.8%
Namibia	408	1,124	3,037	4.7	520	**168**	5.5%
Zimbabwe	183	677	1,508	4.5	251	**102**	6.7%
Kenya	130	-	251	1.9	130	**(59)**	-23.6%
Other African Countries[4]	174	201	708	2.9	194	**(1)**	-0.3%
Asia & Latin America[5]	438	1,490	2,731	2.8	587	**(43)**	-1.6%
OMEM covered business	7,584	37,806	68,848	4.1	11,365	**2,173**	3.2%

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

[2] Annual Premium Equivalent (APE) is calculated as annualised recurring premiums plus 10% of single premiums. For Mass Foundation, this excludes the 'short term pocket' of the 2-IN-ONE savings product, which is not valued on an MCEV basis.

[3] Sales of Corporate products through the retail platform are included in both Retail Affluent and Corporate sales but eliminated on consolidation.

[4] Other African Countries includes Malawi, Swaziland, Nigeria, Ghana and Botswana.

[5] Asia and Latin America includes Mexico and Colombia only.

Emerging Markets covered business new business

Year ended 31 December 2015 **Rm**

	Annualised recurring premiums	Single premiums	PVNBP	PVNBP capitali-sation[1]	APE[2]	VNB	PVNBP margin
South Africa	5,709	35,268	64,417	5.1	9,237	2,190	3.4%
Retail Affluent	1,801	19,560	27,305	4.3	3,757	653	2.4%
Mass Foundation	3,241	35	11,677	3.6	3,246	1,204	10.3%
Corporate	667	18,289	28,051	14.6	2,496	333	1.2%
Eliminations of intra-Group sales[3]		(2,616)	(2,616)		(262)		
Rest of Africa	880	2,088	6,011	4.5	1,088	257	4.3%
Namibia	375	1,052	2,938	5.0	480	207	7.1%
Zimbabwe	239	563	1,748	5.0	295	122	7.0%
Kenya	91	-	202	2.2	92	(29)	-14.3%
Other African Countries[4]	175	473	1,123	3.7	221	(43)	-3.9%
Asia & Latin America[5]	280	983	1,510	1.9	378	(53)	-3.5%
OMEM covered business	6,869	38,339	71,938	4.9	10,703	2,394	3.3%

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

[2] Annual Premium Equivalent (APE) is calculated as annualised recurring premiums plus 10% of single premiums. For Mass Foundation, this excludes the 'short term pocket' of the 2-IN-ONE savings product, which is not valued on an MCEV basis.

[3] Sales of Corporate products through the retail platform are included in both Retail Affluent and Corporate sales but eliminated on consolidation.

[4] Other African Countries includes Malawi, Swaziland, Nigeria and Ghana.

[5] Asia and Latin America includes Mexico only.

South Africa: The positive impacts of higher sales volumes and improved distribution efficiencies were more than offset by the negative impacts of the higher yield curve at 31 December 2015 as well as operating assumption and methodology changes made at 31 December 2016, resulting in a net decrease in VNB and the PVNBP margin.

- The PVNBP margin in Retail Affluent reduced as a result of the higher yield curve at 31 December 2015 as well as lower sales volumes in 2016 leading to distribution strains.
- In Mass Foundation, the negative impacts of the operating assumption and methodology changes at 31 December 2016 as well as the phase in of premium increases over the year on the risk book was partly offset by improved distribution efficiencies leading to a lower PVNBP margin overall.
- Corporate's PVNBP margin improved over 2016 mainly due to a higher volume of smoothed bonus and group assurance sales leading to a more profitable mix of business and improved distribution efficiencies, partly offset by the negative impact of methodology changes at 31 December 2016.

Namibia: Changes in the mix of business towards a higher proportion of lower margin life-wrapped unit trust business have resulted in a lower VNB and a lower PVNBP margin.

Zimbabwe: Lower sales volumes in general resulted in a lower VNB and a lower PVNBP margin.

Kenya, Other African countries and Asia & Latin America: We continue to build scale in these other businesses and as such the VNB is currently negative. The PVNBP margin for Kenya has reduced as a result of a higher proportion of low margin 2-IN-ONE savings sales. The PVNBP margin for Other African Countries has improved relative to 31 December 2015 due to a more profitable mix of business and higher sales volumes in Ghana and Malawi. The inclusion of Colombia life business in MCEV has improved the PVNBP margin for Asia & Latin America.

The recurring premium PVNBP capitalisation factor reduced relative to 31 December 2015 mainly due to the operating assumption and methodology changes made at 31 December 2016 in Corporate and Mass Foundation (which shortened the effective duration of the business) and the impact of the higher yield curve at 31 December 2015 (compared to 31 December 2014) as PVNBP is based on opening yield curves.

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(c) Additional new business written by Emerging Markets

This table shows the additional long-term business written, but excluded from covered business.

Total long-term business sales

Rm

	Year ended 31 December 2016			Year ended 31 December 2015		
	Annualised Recurring Premium	Single Premiums	**APE**	Annualised Recurring Premium	Single Premiums	**APE**
Covered business	7,584	37,806	**11,365**	6,869	38,339	**10,703**
Other long-term business	1,867	2,942	**2,161**	1,694	3,349	**2,029**
South Africa	423		**423**	390		**390**
Asia & Latin America	1,444	2,942	**1,738**	1,304	3,349	**1,639**
Total long-term business	9,451	40,748	**13,526**	8,563	41,688	**12,732**

The other long-term business relates to business where profits arise in the life business, but which are not valued on an MCEV basis (i.e. excluded from VNB and PVNBP). In South Africa, this relates to the 'short-term pocket' of the Mass Foundation 2-IN-ONE savings product. In Asia & Latin America, this includes India and China for all periods; and includes Colombia for 31 December 2015, as Colombia has been included in covered business for the first time in 2016. Sales from these businesses are shown as part of long-term business APE sales in the Emerging Markets part of the Financial Disclosure Supplement (section 3.4).

Additional non-covered life sales

The Emerging Markets part of the Financial Disclosure Supplement (section 3.7) sets out the information for additional non-covered business sales, which relate to unit trust sales and third party flows into segregated funds. This includes the value of new pension fund asset management business and certain individual unit trust linked retirement annuities written by the Emerging Markets long-term business of R12,028 million (2015: R13,782 million), which is excluded from VNB (as well as APE and PVNBP) above as the profits in this business arise outside of the covered business in the asset management business.

Premium increases

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

2.3 Experience variances

Rm

	Year ended 31 December 2016			Year ended 31 December 2015		
	Adjusted net worth	Value of in-force	**MCEV**	Adjusted net worth	Value of in-force	**MCEV**
Persistency	110	(479)	**(369)**	186	(127)	**59**
Risk	84	113	**197**	564	(92)	**472**
Expenses	346	6	**352**	(133)	(63)	**(196)**
Other	144	128	**272**	(51)	123	**72**
Experience variances	684	(232)	**452**	566	(159)	**407**

There were positive experience variances (excluding development costs) of R452 million mainly due to improved expense and other experience variances as well as continued positive mortality experience variances, partly offset by negative persistency and disability variances.

(a) Persistency variance

Persistency experience variance has deteriorated, particularly on the savings business in South Africa, which reflects the impact of the tough economic environment on clients. During the year, we have put in place a number of initiatives to help manage our persistency experience, including an ongoing focus on quality of new business, customer affordability and targeted benefit enhancements.

(b) Risk variance

The favourable mortality experience seen in recent years has continued into 2016 across all segments, although at materially lower levels than 2015 mainly due to an increase in the average size of group life assurance claims in Corporate, and a higher number and average size of claims in Retail Affluent. The positive mortality experience variance is partly offset by adverse Corporate disability income experience, which is not unexpected in the current economic environment. Losses emerged in Corporate due to a higher than expected average size and number of disability income benefit claims. Pricing and claims management have been strengthened to address the adverse disability experience.

(c) Expense variance
Expense variances have improved significantly since 2015 following the assumption changes made at 31 December 2015. The positive variance is largely as a result of lower than expected project expenditure in 2016 and improved efficiencies in South Africa and Namibia.

(d) Other experience variances
Other experience variances are positive in 2016 and include the positive impacts of a reduction in asset management costs on life funds in Retail Affluent, the annual review of premium and cover levels in Mass Foundation and lower than expected tax payments on life profits.

2.4 Development cost variances

Development costs have reduced mainly due to lower than expected project expenditure in South Africa. In addition, development cost variances in 2015 included large UAP integration costs incurred in the second half of 2015 that were not repeated in 2016. The development cost variances in 2016 include costs in respect of:

- Initiatives to support the expansion into Africa and building the Old Mutual brand;
- The continued integration of UAP into Old Mutual Emerging Markets (although at lower levels than 2015);
- Development of alternative products and distribution capabilities; and
- Investment in information technology to improve customer experience and deliver efficiencies.

2.5 Experience driven assumption changes

Rm

	Year ended 31 December 2016			Year ended 31 December 2015		
	Adjusted net worth	Value of in-force	**MCEV**	Adjusted net worth	Value of in-force	**MCEV**
Persistency	(342)	(55)	**(397)**	-	8	**8**
Risk	210	(18)	**192**	270	52	**322**
Expenses	71	(712)	**(641)**	288	(762)	**(474)**
Experience driven	(61)	(785)	**(846)**	558	(702)	**(144)**

(a) Persistency assumption changes
In light of the negative persistency experience variances in 2016, and the position in the current economic cycle, surrender rate assumptions on the Mass Foundation savings book have been increased. Experience will continue to be monitored closely given the difficult economic environment in South Africa, Namibia and Zimbabwe.

(b) Risk assumption changes
Following a mortality investigation conducted in 2016 on the South African annuitant books, Corporate and Retail Affluent have updated the base mortality curves. These changes resulted in a release of reserves at 31 December 2016.

(c) Expense assumption changes
The positive ANW expense assumption change reflects reserving basis changes due to Namibia capitalising the expense savings achieved on the retail books over 2016.

The negative VIF expense assumption change reflects the allowance for central one-off and project expenditure over the business planning period which have been allocated to covered business, and expense provisions in Corporate in respect of additional costs that have been allocated to the segment. The most material central project expenditure relates to the continued investment in the OMEM IT transformation program and costs related to the Managed Separation strategy.

2.6 Methodology changes and management actions

Methodology changes and management actions mainly relate to the positive impact of the election to transfer classes of existing risk business to the new risk tax fund in South Africa (as discussed in section 6.2 (k)). The transfer resulted in a significant release of reserves as trustee tax no longer applies.

In addition to the above, various other methodology changes and modelling improvements, including improvements to the Corporate smoothed bonus projection methodology and a correction to the calculation of the Corporate CNHR, resulted in a small decrease in MCEV at 31 December 2016.

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2.7 Investment variances and economic assumption changes

						Rm
	Year ended 31 December 2016			Year ended 31 December 2015		
	ANW	VIF	**MCEV**	ANW	VIF	**MCEV**
Investment variance on in-force business	528	(983)	**(455)**	609	(327)	**282**
Investment variance on adjusted net worth	(962)	-	**(962)**	(675)	-	**(675)**
Impact of economic assumption changes	57	443	**500**	12	186	**198**
Investment variances and economic	(377)	(540)	**(917)**	(54)	(141)	**(195)**

(a) Investment variance on in-force business

The negative investment variance on in-force business relates to:

- The positive ANW impact of the favourable performance on non-profit annuity portfolios mainly due to the spread earned on credit asset portfolios backing these liabilities; more than offset by
- The negative VIF impact of lower than expected investment returns on policyholder funds in 2016 resulting in lower future expected asset-based fee income on most investment and smoothed bonus products in South Africa and Namibia.

(b) Investment variance on ANW

The negative investment variance on ANW relates mostly to lower than expected investment return on shareholder funds in South Africa as a result of the relatively flat markets, partly offset by higher than expected investment returns in Zimbabwe following the equity market recovery at the end of 2016.

(c) Effect of economic assumption changes

The positive economic assumption changes mainly relate to:

- A decrease in bond rates, on which the economic assumptions are primarily based. This resulted in an increase in VIF mainly due to the positive impact of lower discount rates and inflation assumptions, partly offset by the negative impact of lower projected investment growth assumptions.
- Improvements to the economic methodology used to value inflation-linked annuities, which increased the ANW.

This was partially offset by an increase in the Investment Guarantee Reserve (IGR) over 2016, mainly due to lower swap yield curves and market movements in equity and swaption volatilities, resulting in a reduction in VIF.

2.8 Closing adjustments

(a) Capital and dividend flows

Capital and dividend flows in 2016 relate mainly to net dividends paid from OMEM covered business of R3,179 million, compared to R1,477 million for 2015. In aggregate, capital and dividend flows in 2016 were however lower than prior year as 2015 included capital outflow in respect of the purchase of UAP.

(b) Foreign exchange variance

The foreign exchange variance relates mainly to the appreciation of the Rand relative to other Emerging Markets currencies, including the appreciation of the Rand to the US Dollar which decreased the value of the Zimbabwe business.

(c) Other closing adjustments

Other net transfer items relate mainly to:

- The inclusion of the Colombia life business in MCEV (R369 million), which was previously reported as asset management business.
- The simplification of MCEV reporting in the smaller African countries, which reduced VIF (R181 million).

2.9 Operating MCEV earnings by territory

	Year ended 31 December 2016	Year ended 31 December 2015
		Rm
South Africa	7,549	6,572
Rest of Africa	799	1,065
Namibia	688	716
Zimbabwe	303	469
Kenya	(86)	(44)
Other African Countries	(106)	(76)
Asia & Latin America	29	(108)
OMEM MCEV Operating Earnings	8,377	7,529

- **South Africa:** The increase in MCEV operating earnings relates mainly to the positive impact of a higher expected return, the positive impact of the transfer of classes of existing risk business to the new tax fund, and improved experience variances, partly offset by negative assumption changes and a lower VNB, as discussed in section 2 above.
- **Namibia:** The decrease in MCEV operating earnings relates mainly to negative modelling changes and a lower VNB, partly offset by a higher expected return and improved expense experience variances.
- **Zimbabwe:** The decrease in MCEV operating earnings relates mainly to less favourable experience variances, the negative impact of modelling changes and a lower VNB, partly offset by a higher expected return.
- **Kenya:** The decrease in MCEV operating earnings for Kenya is driven by the negative VNB and higher expenses incurred in 2016 to support the development and distribution of new products in East Africa.
- **Asia & Latin America:** MCEV operating profits in Colombia more than offset the losses in Mexico. Continuing MCEV operating losses in Mexico are mainly due to the negative VNB as we continue to build scale in the Mexican life business. (MCEV operating earnings in 2015 included a negative impact from modelling improvements and corrections).

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3 Reconciliation to IFRS

3.1 Reconciliation of IFRS NAV to MCEV for covered business

The table below provides a reconciliation of the IFRS net asset value (NAV) to the MCEV.

	Rm	
	At 31 December 2016	At 31 December 2015
OMEM IFRS Net Asset Value	**41,622**	**41,159**
Less IFRS net asset value for non-covered business[1]	(17,012)	(18,303)
IFRS net asset value for Covered Business	**24,610**	**22,856**
Adjustment to include long-term business on a statutory basis[2]	(1,057)	(941)
Inclusion of Group equity and debt instruments held in life funds	4,370	3,799
Goodwill	(134)	(156)
Other[3]	(564)	(495)
Adjusted net worth attributable to ordinary equity holders of the parent	**27,225**	**25,063**
Value of in-force business	**31,920**	**31,248**
MCEV	**59,145**	**56,311**

[1] The decrease in IFRS net asset value of non-covered business since 31 December 2015 is driven by an impairment of goodwill in the Property & Casualty business in Rest of Africa as a result of the current difficult economic conditions in the Southern and East African region. The appreciation of the Rand relative to other Emerging Markets currencies further reduced the net asset value in Rand terms.

[2] The adjustment to include long-term business on a statutory solvency basis reflects deferred acquisition costs and deferred tax differences.

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

3.2 Reconciliation of operating MCEV earnings to IFRS AOP

This table reconciles IFRS AOP Post-tax & Non-controlling Interests (NCI) to Operating MCEV Earnings.

	Rm	
	Year ended 31 December 2016	Year ended 31 December 2015
OMEM Life and Savings AOP post-tax & NCI	**6,576**	**5,831**
Less AOP Life and Savings post-tax & NCI of non-covered business	(206)	(257)
OMEM AOP post-tax & NCI for covered business	6,370	5,574
Alignment of Statutory basis to IFRS basis (ANW impact)[1]	-	(3,647)
OMUT Life profits included in asset management[2]	-	111
Other Adjustments[3]	312	(134)
Adjusted Net Worth operating earnings	6,682	**1,904**
Alignment of Statutory basis to IFRS basis (Impact on Value of in-force)[1]	-	4,271
Other Value of in-force operating earnings[4]	1,695	1,354
Covered business MCEV operating earnings	**8,377**	**7,529**

[1] At 31 December 2015, the statutory liability basis for Retail Affluent investment contracts was aligned to the IFRS liability basis which reduced ANW earnings and increased VIF, but did not impact IFRS earnings.

[2] At 31 December 2015, profits of R111m relating to life-wrapped business invested in OMUT unit trusts was included in the asset management AOP after tax.

[3] Other adjustments include the impacts of differences between IFRS and MCEV reporting, including the different treatment of economic variances (which are included in IFRS AOP but not MCEV operating earnings)

[4] This represents the VIF earnings for the period as set out in section 2.

The growth in VIF earnings is driven mainly by the increased VIF contribution from new business and the positive impact of modelling changes.

4 Expected return for following period

The following table sets out the expected existing business contribution for the year ending 31 December 2017, based on the 31 December 2016 closing MCEV.

					Rm
	Year ended 31 December 2017				
	Free surplus	Required capital	Adjusted net worth	Value of in-force	MCEV
Expected existing business contribution (reference rate)	358	1,404	1,762	3,183	4,945
Expected existing business contribution (in excess of reference rate)	147	251	398	413	811

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5 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 2016 and the year ended 31 December 2015 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 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. This facilitates the comparison of VNB with peers which calculate VNB on closing economic assumptions.
- **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 2016**	31 December 2015
Central assumptions	**59,145**	56,311
Value given changes in:		
Economic assumptions 100bps increase	**58,993**	56,017
Economic assumptions 100bps decrease	**59,126**	56,704
Equity/property market value 10% increase	**60,991**	57,963
Equity/property market value 10% decrease	**57,284**	54,650
10bps increase of liquidity spreads	**59,310**	56,443
50bps contraction on corporate bond spreads	**59,242**	56,468
25% increase in equity/property implied volatilities	**57,752**	55,277
25% increase in swaption implied volatilities	**59,133**	56,250
10% decrease in discontinuance rates	**60,740**	57,801
10% decrease in maintenance expenses	**60,925**	58,212
5% decrease in mortality/morbidity rates	**61,304**	58,101
5% decrease in annuitant mortality assumption	**58,966**	56,180
Minimum capital requirement	**59,983**	57,096
NHR capital diversification	**59,521**	56,749

VIF	31 December 2016	31 December 2015
		Rm
Central assumptions	**31,920**	31,248
Value given changes in:		
Economic assumptions 100bps increase	**31,759**	30,944
Economic assumptions 100bps decrease	**31,910**	31,653
Equity/property market value 10% increase	**33,371**	32,504
Equity/property market value 10% decrease	**30,454**	29,982
10bps increase of liquidity spreads	**32,085**	31,380
50bps contraction on corporate bond spreads	**31,913**	31,248
25% increase in equity/property implied volatilities	**30,527**	30,214
25% increase in swaption implied volatilities	**31,908**	31,187
10% decrease in discontinuance rates	**33,515**	32,738
10% decrease in maintenance expenses	**33,700**	33,149
5% decrease in mortality/morbidity rates	**34,079**	33,038
5% decrease in annuitant mortality assumption	**31,741**	31,117
Minimum capital requirement	**32,758**	32,033
NHR capital diversification	**32,296**	31,686

VNB	31 December 2016	31 December 2015
		Rm
Central assumptions	**2,173**	2,394
Value given changes in:		
Economic assumptions 100bps increase	**2,049**	2,281
Economic assumptions 100bps decrease	**2,300**	2,497
Equity/property market value 10% increase	**2,173**	2,394
Equity/property market value 10% decrease	**2,173**	2,394
10bps increase of liquidity spreads	**2,173**	2,395
50bps contraction on corporate bond spreads	**2,178**	2,401
25% increase in equity/property implied volatilities	**2,173**	2,394
25% increase in swaption implied volatilities	**2,173**	2,394
10% decrease in discontinuance rates	**2,633**	2,869
10% decrease in maintenance expenses	**2,348**	2,555
5% decrease in mortality/morbidity rates	**2,387**	2,593
5% decrease in annuitant mortality assumption	**2,162**	2,376
10% increase in acquisition expenses	**2,011**	2,234
Closing economic assumptions	**2,244**	2,278
Minimum capital requirement	**2,222**	2,442
NHR capital diversification	**2,197**	2,427

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6 MCEV methodology

The following section provides information on the methodology used to calculate MCEV results. The methodology used to calculate MCEV at 31 December 2016 is consistent with 31 December 2015 unless explicitly noted in this disclosure.

6.1 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.

(a) Compliance with CFO Forum MCEV Principles

The Market Consistent Embedded Value Principles (Copyright © Stichting CFO Forum Foundation 2008) issued in June 2008 and updated in May 2016 by the CFO Forum (the Principles or MCEV Principles) have been used as the basis for preparing the MCEV disclosure information for the covered business in Emerging Markets.

We have not changed our MCEV methodology in light of the May 2016 updates to the CFO Forum MCEV Principles, which allows (but does not require) the alignment of MCEV and Solvency II methodologies and assumptions.

Apart from Principle 14 and the methodology disclosure requirements, the Principles have been materially complied with in the preparation of MCEV information for the Emerging Markets business at 31 December 2016. Principle 14 requires the use of a swap curve as the reference curve, however a government bond curve has been used predominantly as the reference curve in South Africa for consistency with the planned new regulatory solvency reporting regime (SAM) which is expected to confirm the standard use of a government bond curve as the risk free rate. Where the liabilities are hedged with swaps, the risk free rate will remain as swaps as per the SAM requirements, however this is only a small percentage of covered business. The reference curve and resulting Embedded Value is still considered to be market consistent as it is derived directly from market indicators. Namibia uses the same reference curve as South Africa.

The covered business within certain African entities (Kenya, Malawi, Swaziland, Nigeria, Ghana and Botswana) has been included in MCEV at their respective ANW values only. No VIF for these entities have been recognised. However, the VNB for these entities have been calculated allowing for VIF.

(b) Scope of covered business

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 are classified as asset management under IFRS because 'long-term business' only serves as a wrapper. This business is excluded from covered business, for example some individual unit trusts and some 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.

Note that the Life insurance business in Colombia has been included in MCEV covered business for the first time in 2016.

6.2 Methodology

(a) Introduction

The MCEV represents the present value of shareholders' interests in the earnings that are distributable from assets allocated to the in-force covered business after making sufficient and appropriate allowance for the aggregate risks in the covered business.

The MCEV consists of the sum of the following components:

- Adjusted net worth, 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, consisting of
  - 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)

(b) Adjusted net worth (ANW)

The ANW 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. The liability to repay and finance the subordinated debt allocated to the covered business has been allowed for in the ANW.

(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 regulatory liabilities for covered business, whose distribution to shareholders is restricted.

For Emerging Markets, capital is determined with reference to internal management objectives.

(d) 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 ANW less the required capital.

The market value of OMLAC(SA)'s investment in Nedbank is excluded from the OMEM ANW as this investment is shown separately on consolidation. In practice the required capital in respect of OMLAC(SA)'s covered business is partially covered by this investment in Nedbank. If this investment were to be included in the OMEM ANW, the reported free surplus of Emerging Markets would increase by R3.6 billion at 31 December 2016.

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

VIF is the allowance for the future profits net of reinsurance expected to emerge from in-force covered business, after allowing for the cost of non-hedgable risk, the frictional cost of required capital and the time value of options and guarantees. The results are adjusted for default risk of reinsurers where material.

(f) 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.

(g) 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. For Emerging Markets, the full market consistent value of financial options and guarantees is already reflected in the local statutory reserves, so no additional allowance is required.

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.

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

(h) 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. An allowance has been made for the frictional costs in respect of the taxation on investment return and investment costs on the assets backing the required capital for covered business, where material.

The run-off pattern of the required capital is projected on an approximate basis over the lifetime of the underlying risks.

(i) Cost of residual non-hedgeable risks (CNHR)

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.

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. A cost of capital charge of 2.0% has been applied to non-hedgeable capital over the life of the contracts.

The amount of diversified economic capital held in respect of residual non-hedgeable risks in Emerging Markets is R16,543 million at 31 December 2016 (R16,186 million at 31 December 2015). The risks considered include mortality and morbidity, persistency and expense risk (among others), but excludes market risks.

(j) 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.

(k) 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.

The Taxation Laws Amendment Act of 2014 introduced a fifth tax fund for Life insurers in South Africa, where investment returns roll up gross of tax and the insurer is taxed purely on the profit generated in the fund. Risk business sold as from 1 January 2016 has been allocated to this fund and the impact of this change has been allowed for in the VNB calculation.

The Taxation Laws Amendment Act of 2015 introduced a one-off option to transfer classes of existing risk business that share similar contractual terms, to this new tax fund on 1 January 2016. The transfer of classes of existing risk business to the new tax fund reduced the associated actuarial liabilities, as trustee tax no longer applies. The value created has been treated as 'methodology changes and management actions' in the analysis of change in MCEV for 2016.

(l) New business and renewals

The market consistent value of new business 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 renewals and voluntary increments that are not allowed for in PVFP. Where increases are allowed for in PVFP, variations from this expectation are classified as experience variance, rather than 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 Annuity 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.

7 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 2015 calculations unless explicitly stated as a change in this disclosure note.

7.1 Economic assumptions

Economic assumptions for South Africa are set out in the following sections. 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 as set out in the basis of preparation. 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, whereas the government bond curve is published by the Financial Services Board in South Africa and validated internally.

A liquidity premium adjustment has been applied to OMLAC(SA)'s Immediate Annuity business. For this business, the adjusted risk free reference rates were derived at 31 December 2016 by adding 70bps of liquidity premium (2015: 60bps) to the reference rates used for setting investment return and discounting assumptions.

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.

South African risk free reference spot yields (excluding liquidity adjustments) and expense inflation

		%
	Risk free rate	**Expense inflation**
At 31 December 2016 (bond curve)		
1 year	**8.0**	**6.7**
5 years	**8.6**	**6.7**
10 years	**9.3**	**7.4**
20 years	**10.2**	**8.3**
At 31 December 2015 (bond curve)		
1 year	8.2	6.6
5 years	9.7	8.0
10 years	10.1	8.5
20 years	10.8	9.0

(b) 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 impact 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 bond return equals the one year risk free reference rate (plus the liquidity premium for applicable product portfolios).
- The property risk premium is 1.5%.

(c) Effective tax rates

The weighted average effective tax rate that applies to the cash flow projections in OMLAC(SA) at 31 December 2016 is 29% (31 December 2015: 29%).

7.2 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.

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).
- Notional unallocated Old Mutual plc holding company expenses have been included to the extent that they are allocated to the covered business. The amount of these expenses attributable to the covered business in Emerging Markets at 31 December 2016 are R194 million (31 December 2015: R173 million). The allocation of these expenses is based on the proportion that the management expenses incurred by the covered businesses bears to the management expenses incurred by all business in the Group.