

Notes on the EEV basis results

1 Basis of preparation

The EEV basis results have been prepared in accordance with the EEV Principles dated April 2016, prepared by the European Insurance CFO Forum. There is no change to the EEV methodology. The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime, as discussed in note 2 below. The 2015 comparative results for UK insurance operations were prepared reflecting the Solvency I basis, being the regime applicable for the year. There is no change to the basis of preparation for Asia and the US operations. Where appropriate, the EEV basis results include the effects of adoption of EU-endorsed IFRS.

The directors are responsible for the preparation of the supplementary information in accordance with the EEV Principles. Except for the change in presentation of the results of the operating and non-operating results for Asia operations to show separately the contribution from the held for sale Korea life business (see note 17 for details), the 2015 results have been derived from the EEV basis results supplement to the Company's statutory accounts for 2015.

A detailed description of the EEV methodology and accounting presentation is provided in note 14.

2 Effect of Solvency II implementation on EEV basis results on 1 January 2016

The Solvency II framework is effective from 1 January 2016. For our operations in Asia and the US there is no impact on the EEV results since Solvency II does not act as the local constraint on the ability to distribute profits to the Group. The embedded value for these businesses will continue to be driven by local regulatory and target capital requirements. For the UK insurance operations, Solvency II has an impact on the EEV results as it changes the local regulatory valuation of net worth and capital requirements, affecting the components of the EEV.

The impact of Solvency II on EEV shareholders' equity on 1 January 2016 is shown below:

Total EEV basis shareholders' equity	£m
As reported at 31 December 2015	32,359
Opening adjustment at 1 January 2016 for long-term business operations	
Effect of implementation of Solvency II on net worth ^{note (a)}	2,760
Effect of implementation of Solvency II on net value of in-force business (VIF) ^{note (b)}	(3,233)
	(473)
Group total shareholders' equity as at 1 January 2016 ^{note (c)}	31,886

Notes

- (a) The Solvency II framework requires technical provisions to be valued on a best estimate basis and capital requirements to be risk-based. It also requires the establishment of a risk margin (which for business in force at 31 December 2015 can be broadly offset by transitional measures). As a result of applying this framework the EEV net worth increased by £2,760 million reflecting the release of the prudent regulatory margins previously included under Solvency I, and also from the recognition within net worth of a portion of future shareholder transfers expected from the with-profits fund. The higher net worth incorporated increases in required capital reflecting the higher solvency capital requirements of the new regime.
- (b) The net value of in-force business (VIF) is correspondingly impacted as follows:
- the release of prudent regulatory margins and recognition of a portion of future with-profits business shareholders' transfers within net worth lead to a corresponding reduction in the VIF;
 - the run-off of the risk margin, net of transitional measures, is now captured in VIF; and
 - the cost of capital deducted from the gross VIF increases as a result of the higher Solvency II capital requirements.
- The overall impact of these changes was to reduce the value of in-force by £(3,233) million.
- (c) At 1 January 2016 the effect of these changes was a net reduction in EEV shareholders' equity of £(473) million.

The impact of Solvency II in 2016 for UK insurance operations is estimated to have reduced total operating profit from new and in-force business by £(39) million.

3 Results analysis by business area

The 2015 comparative results are shown below on both actual exchange rates (AER) and constant exchange rates (CER) bases. The 2015 CER comparative results are translated at 2016 average exchange rates.

Annual premium equivalents (APE) ^{note 16}

	Note	2016 £m		2015* £m		% change	
				AER	CER	AER	CER
Asia operations		3,599		2,712	3,020	33%	19%
US operations		1,561		1,729	1,950	(10)%	(20)%
UK retail operations [†]		1,160		874	874	33%	33%
Group total excluding UK bulk annuities	4	6,320		5,315	5,844	19%	8%
UK bulk annuities [†]		–		151	151	(100)%	(100)%
Group total		6,320		5,466	5,995	16%	5%

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3 Results analysis by business area continued

Post-tax operating profit

	Note	2016 £m		2015 [†] £m		% change	
		AER	CER	AER	CER	AER	CER
Asia operations							
New business	4	2,030	1,482	1,660	37%	22%	
Business in force	5	1,044	798	895	31%	17%	
Long-term business		3,074	2,280	2,555	35%	20%	
Eastspring Investments		125	101	112	24%	12%	
Total		3,199	2,381	2,667	34%	20%	
US operations							
New business	4	790	809	913	(2)%	(13)%	
Business in force	5	1,181	999	1,127	18%	5%	
Long-term business		1,971	1,808	2,040	9%	(3)%	
Broker-dealer and asset management		(3)	7	8	(143)%	(138)%	
Total		1,968	1,815	2,048	8%	(4)%	
UK operations							
New business [†]							
UK retail operations	4	268	201	201	33%	33%	
UK bulk annuities		–	117	117	(100)%	(100)%	
		268	318	318	(16)%	(16)%	
Business in force	5	375	545	545	(31)%	(31)%	
Long-term business [†]		643	863	863	(25)%	(25)%	
General insurance commission		23	22	22	5%	5%	
Total UK insurance operations [†]		666	885	885	(25)%	(25)%	
M&G		341	358	358	(5)%	(5)%	
Prudential Capital		22	18	18	22%	22%	
Total[†]		1,029	1,261	1,261	(18)%	(18)%	
Other income and expenditure		(679)	(566)	(566)	(20)%	(20)%	
Solvency II and restructuring costs		(57)	(51)	(51)	(12)%	(12)%	
Interest received on tax settlement		37	–	–	n/a	n/a	
Operating profit based on longer-term investment returns[†]		5,497	4,840	5,359	14%	3%	
Analysed as profit (loss) from:							
New business [†]							
Life operations excluding UK bulk annuities	4	3,088	2,492	2,774	24%	11%	
UK bulk annuities		–	117	117	(100)%	(100)%	
		3,088	2,609	2,891	18%	7%	
Business in force	5	2,600	2,342	2,567	11%	1%	
Total long-term business [†]		5,688	4,951	5,458	15%	4%	
Asset management and general insurance commission		508	506	518	0%	(2)%	
Other results		(699)	(617)	(617)	(13)%	(13)%	
Operating profit based on longer-term investment returns[†]		5,497	4,840	5,359	14%	3%	

Post-tax profit

	Note	2016 £m	2015* £m		% change	
			AER	CER	AER	CER
Operating profit based on longer-term investment returns [†]		5,497	4,840	5,359	14%	3%
Short-term fluctuations in investment returns	6	(507)	(1,215)	(1,343)	58%	62%
Effect of changes in economic assumptions	7	(60)	66	66	(191)%	(191)%
Mark to market value movements on core borrowings		(4)	221	220	(102)%	(102)%
(Loss) profit attaching to the held for sale Korea life business	17	(410)	39	42	n/a	n/a
Total non-operating loss		(981)	(889)	(1,015)	(10)%	3%
Profit for the year attributable to shareholders		4,516	3,951	4,344	14%	4%

Basic earnings per share (in pence)

	2016	2015		% change	
		AER	CER	AER	CER
Based on post-tax operating profit including longer-term investment returns* [†]	214.7p	189.6p	209.9p	13%	2%
Based on post-tax profit [‡]	176.4p	154.8p	170.2p	14%	4%

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

‡ Following Prudential's withdrawal from the UK bulk annuity market, the 2015 comparative results for UK bulk annuities new business have been presented separately.

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4 Analysis of new business contribution

(i) Group summary

	2016				
	Annual premium and contribution equivalents (APE) £m note 16	Present value of new business premiums (PVNBP) £m note 16	New business contribution £m note	New business margin	
				APE %	PVNBP %
Asia operations ^{note (ii)}	3,599	19,271	2,030	56	10.5
US operations	1,561	15,608	790	51	5.1
UK insurance operations [†]	1,160	10,513	268	23	2.5
Group total	6,320	45,392	3,088	49	6.8

	2015*				
	Annual premium and contribution equivalents (APE) £m note 16	Present value of new business premiums (PVNBP) £m note 16	New business contribution £m note	New business margin	
				APE %	PVNBP %
Asia operations ^{note (ii)}	2,712	14,428	1,482	55	10.3
US operations	1,729	17,286	809	47	4.7
UK retail operations ^{††}	874	7,561	201	23	2.7
Total excluding UK bulk annuities	5,315	39,275	2,492	47	6.3
UK bulk annuities [‡]	151	1,508	117	77	7.8
Group total	5,466	40,783	2,609	48	6.4

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

‡ Following Prudential's withdrawal from the UK bulk annuity market, the 2015 comparative results for UK bulk annuities new business have been presented separately.

Note

The increase in new business contribution of £596 million from £2,492 million for 2015 (excluding the contributions from UK bulk annuities) to £3,088 million for 2016 comprises an increase on a CER basis of £314 million and an increase of £282 million for foreign exchange effects. The increase of £314 million on a CER basis comprises a contribution of £226 million for higher retail sales volumes in 2016, a £17 million effect of movement in long-term interest rates, generated by the active basis of setting economic assumptions (analysed as Asia £14 million, US £13 million and UK £(10) million), and a £71 million impact of pricing, product and other actions.

(ii) Asia operations – new business contribution by territory

	2016	2015*	
	£m	AER	CER
China	63	30	32
Hong Kong	1,363	835	941
Indonesia	175	229	260
Taiwan	31	28	31
Other	398	360	396
Total Asia operations	2,030	1,482	1,660

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

5 Operating profit from business in force

(i) Group summary

	2016 £m			
	Asia operations note (ii)	US operations note (iii)	UK insurance operations note (iv)	Total note
Unwind of discount and other expected returns	866	583	445	1,894
Effect of changes in operating assumptions	54	170	25	249
Experience variances and other items	124	428	(95)	457
Total	1,044	1,181	375	2,600

	2015* £m			
	Asia operations* note (ii)	US operations note (iii)	UK insurance operations† note (iv)	Total note
Unwind of discount and other expected returns	725	472	488	1,685
Effect of changes in operating assumptions	12	115	55	182
Experience variances and other items	61	412	2	475
Total	798	999	545	2,342

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).
† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflected the Solvency I basis being the regime applicable for the year.

Note

The movement in operating profit from business in force of £258 million from £2,342 million for 2015 to £2,600 million for 2016 comprises:

	£m
Movement in unwind of discount and other expected returns:	
Effects of changes in:	
Growth in opening value	126
Interest rates	(28)
Foreign exchange	141
Implementation of Solvency II on 1 January 2016	(30)
	209
Movement in effect of changes in operating assumptions, experience variances and other items (including foreign exchange of £84 million)	49
Net movement in operating profit from business in force	258

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5 Operating profit from business in force continued

(ii) Asia operations

	2016 £m	2015* £m
Unwind of discount and other expected returns ^{note (a)}	866	725
Effect of changes in operating assumptions:		
Mortality and morbidity	33	63
Persistency and withdrawals ^{note (b)}	(47)	(46)
Expense	15	(1)
Other ^{note (c)}	53	(4)
	54	12
Experience variances and other items:		
Mortality and morbidity ^{note (d)}	71	54
Persistency and withdrawals ^{note (e)}	52	17
Expense ^{note (f)}	(23)	(32)
Other	24	22
	124	61
Total Asia operations	1,044	798

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

Notes

- The increase in unwind of discount and other expected returns of £141 million from £725 million for 2015 to £866 million for 2016 comprises a positive £61 million impact for the growth in the opening in-force value, a positive £81 million foreign exchange effect and a net £(1) million effect for movements in long-term interest rates.
- The 2016 charge of £(47) million (2015: £(46) million) for persistency assumption changes comprises positive and negative contributions from our various operations, with positive persistency updates on health and protection products being more than offset by negative effects for unit-linked business.
- The 2016 credit of £53 million for other assumption changes reflects a number of offsetting items, including modelling improvements and those arising from asset allocation changes in a number of territories.
- The positive mortality and morbidity experience variance in 2016 of £71 million (2015: £54 million) mainly reflects better than expected experience in a number of territories.
- The positive £52 million for persistency and withdrawals experience in 2016 (2015: £17 million) comprises positive and negative contributions from various operations, with positive persistency experience on health and protection products which more than offsets negative experience on unit-linked products.
- The negative expense experience variance in 2016 of £(23) million (2015: £(32) million) principally arises in operations which are currently sub-scale (China, Malaysia Takafal and Taiwan).

(iii) US operations

	2016 £m	2015 £m
Unwind of discount and other expected returns ^{note (a)}	583	472
Effect of changes in operating assumptions ^{note (b)}	170	115
Experience variances and other items:		
Spread experience variance ^{note (c)}	119	149
Amortisation of interest-related realised gains and losses ^{note (d)}	88	70
Other ^{note (e)}	221	193
	428	412
Total US operations	1,181	999

Notes

- The increase in unwind of discount and other expected returns of £111 million from £472 million for 2015 to £583 million for 2016 comprises a positive £40 million effect for the underlying growth in the in-force book, a positive £60 million foreign exchange effect and an £11 million impact of the 20 basis points increase in the US 10-year treasury yield during the year.
- The 2016 credit of £170 million comprises assumption updates for mortality, persistency and expense, together with an increase in the assumed level of tax relief reflecting recent experience.
- The spread assumption for Jackson is determined on a longer-term basis, net of provision for defaults (see note 15(ii)). The spread experience variance in 2016 of £119 million (2015: £149 million) includes the positive effect of transactions previously undertaken to more closely match the overall asset and liability duration. The reduction compared to the prior year reflects the effects of declining yields in the portfolio caused by the prolonged low interest rate environment.
- The amortisation of interest-related gains and losses reflects the fact that when bonds that are neither impaired nor deteriorating are sold and reinvested there will be a consequent change in the investment yield. The realised gain or loss is amortised into the result over the period when the bonds would have otherwise matured to better reflect the long-term returns included in operating profits.
- Other experience variances of £221 million in 2016 (2015: £193 million) include the effects of positive persistency experience and other variances.

(iv) UK insurance operations

	2016 £m	2015* £m
Unwind of discount and other expected returns ^{note (a)}	445	488
Reduction in future UK corporate tax rate ^{note (b)}	25	55
Other ^{note (c)}	(95)	2
Total UK insurance operations	375	545

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflected the Solvency I basis being the regime applicable for the year.

Notes

- (a) The decrease in unwind of discount and expected returns of £(43) million from 2015 of £488 million to £445 million for 2016 comprises a positive £25 million effect for the underlying growth in the in-force book, more than offset by a £(38) million effect driven by the 70 basis points decrease in the 15-year gilt yield during the year and a negative £(30) million representing the net effect of adopting the Solvency II regime.
- (b) The credit of £25 million (2015: £55 million) for the reduction in UK corporate tax rate reflects the beneficial effect of applying a lower corporation tax rate (see note 15) to future life profits from in-force business in the UK.
- (c) Other items comprise the following:

	2016 £m	2015 £m
Longevity reinsurance	(90)	(134)
Impact of specific management actions to improve solvency position ^{note (d)}	110	75
Provision for cost of undertaking past non-advised annuity sales review and potential redress ^{note (e)}	(145)	–
Other items ^{note (f)}	30	61
	(95)	2

- (d) The 2016 benefit of £110 million (2015: £75 million) arises from the specific management actions to improve solvency, including the effect of repositioning the fixed income asset portfolio.
- (e) In response to the findings of the FCA's Thematic Review of Annuities Sales Practices, the UK business will review all internally vesting annuities sold without advice after 1 July 2008. Reflecting this, the UK 2016 result includes a provision of £145 million (post-tax) for the estimated cost of the review and any appropriate customer redress, but excludes any potential for insurance recoveries.
- (f) The 2016 credit of £30 million (2015: £61 million) comprises assumption updates and experience variances for mortality, expense, persistency and other items.

6 Short-term fluctuations in investment returns

Short-term fluctuations in investment returns included in profit for the year arise as follows:

(i) Group summary

	2016 £m	2015* £m
Asia operations ^{note (ii)}	(100)	(213)
US operations ^{note (iii)}	(1,102)	(753)
UK insurance operations ^{note (iv)}	869	(194)
Other operations ^{note (v)}	(174)	(55)
Total	(507)	(1,215)

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

(ii) Asia operations

The short-term fluctuations in investment returns for Asia operations comprise:

	2016 £m	2015* £m
Hong Kong	(105)	(144)
Singapore	52	(104)
Other	(47)	35
Total Asia operations^{note}	(100)	(213)

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

Note

For 2016, the charge of £(100) million mainly reflects the impact of interest rate movements on bonds and other investment returns, with losses due to increased long-term interest rates in Hong Kong, partly offset by gains in Singapore (as shown in note 15(i)).

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6 Short-term fluctuations in investment returns continued

(iii) US operations

The short-term fluctuations in investment returns for US operations comprise:

	2016 £m	2015 £m
Investment return related experience on fixed income securities ^{note (a)}	(85)	(17)
Investment return related impact due to changed expectation of profits on in-force variable annuity business in future periods based on current year separate account return, net of related hedging activity and other items ^{note (b)}	(1,017)	(736)
Total US operations	(1,102)	(753)

Notes

- (a) The charge relating to fixed income securities comprises the following elements:
- the impact on portfolio yields of changes in the asset portfolio in the year;
 - the excess of actual realised gains and losses over the amortisation of interest-related realised gains and losses recorded in the profit and loss account; and
 - credit experience (versus the longer-term assumption).
- (b) This item reflects the net impact of:
- changes in projected future fees and future benefit costs arising from the difference between the actual growth in separate account asset values in the current year of 8.9 per cent and that assumed at the start of the year of 6.0 per cent; and
 - related hedging activity arising from realised and unrealised gains and losses on equity-related hedges and interest rate options, and other items.

(iv) UK insurance operations

The short-term fluctuations in investment returns for UK insurance operations comprise:

	2016 £m	2015* £m
Shareholder-backed annuity business ^{note (a)}	431	(88)
With-profits and other business ^{note (b)}	438	(106)
Total UK insurance operations	869	(194)

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflected the Solvency I basis being the regime applicable for the year.

Notes

- (a) Short-term fluctuations in investment returns for shareholder-backed annuity business comprise:
- gains (losses) on surplus assets compared to the expected long-term rate of return reflecting reductions (increases) in corporate bond and gilt yields;
 - the difference between actual and expected default experience; and
 - the effect of mismatching for assets and liabilities of different durations.
- (b) The £438 million fluctuations in 2016 for with-profits and other business represent the impact of achieving a 13.6 per cent pre-tax return on the with-profits fund (including unallocated surplus) compared to the assumed rate of return of 5.0 per cent (2015: total return of 3.1 per cent compared to assumed rate of 5.4 per cent), together with the effect of a partial hedge of future shareholder transfers expected to emerge from the UK's with-profits sub-fund entered into to protect future shareholder with-profit transfers from movements in the UK equity market.

(v) Other operations

Short-term fluctuations in investment returns for other operations of negative £(174) million (2015: negative £(55) million) include unrealised value movements on investments held outside of the main life operations.

7 Effect of changes in economic assumptions

The effects of changes in economic assumptions for in-force business included in the profit for the year arise as follows:

(i) Group summary

	2016 £m	2015* £m
Asia operations ^{note (ii)}	70	(139)
US operations ^{note (iii)}	45	109
UK insurance operations ^{note (iv)}	(175)	96
Total	(60)	66

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

(ii) Asia operations

The effect of changes in economic assumptions for Asia operations comprises:

	2016 £m	2015* £m
Hong Kong	85	100
Indonesia	46	(15)
Malaysia	(20)	(30)
Singapore	(60)	(50)
Taiwan	12	(97)
Other	7	(47)
Total Asia operations ^{note}	70	(139)

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

Note

The positive effect for 2016 of £70 million largely arises from the movements in long-term interest rates (see note 15(i)). Non-operating profits arise from higher interest rates and hence fund earned rates in Hong Kong, together with the beneficial impact of valuing future health and protection profits at lower discount rates in Indonesia. Losses arise from a fall in interest rates in Singapore and a higher discount rate in Malaysia.

(iii) US operations

The effect of changes in economic assumptions for US operations comprises:

	2016 £m	2015 £m
Variable annuity business	86	104
Fixed annuity and other general account business	(41)	5
Total US operations ^{note}	45	109

Note

For 2016, the credit of £45 million mainly reflects the increase in the assumed separate account return and reinvestment rates for variable annuity business, following the 20 basis points increase in the US 10-year treasury yield, resulting in higher projected fee income and a decrease in projected benefit costs. For fixed annuity and other general account business, the impact reflects the effect on the present value of future projected spread income of applying a higher discount rate on the opening value of the in-force book.

(iv) UK insurance operations

The effect of changes in economic assumptions for UK insurance operations comprises:

	2016 £m	2015* £m
Shareholder-backed annuity business ^{note (a)}	(113)	(56)
With-profits and other business ^{note (b)}	(62)	152
Total UK insurance operations	(175)	96

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflected the Solvency I basis being the regime applicable for the year.

Notes

- (a) For shareholder-backed annuity business the overall negative effect of £(113) million for 2016 (2015: £(56) million) reflects an increase in the cost of capital, driven by the lower interest rates, partially offset by the change in the present value of projected spread income arising mainly from the adoption of lower risk discount rates as shown in note 15(iii).
- (b) The charge of £(62) million for 2016 (2015: credit of £152 million) reflects the net effect of changes in expected future fund earned rates and risk discount rates (as shown in note 15(iii)).

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8 Net core structural borrowings of shareholder-financed operations

	31 Dec 2016 £m			31 Dec 2015 £m		
	IFRS basis	Mark to market value adjustment	EEV basis at market value	IFRS basis	Mark to market value adjustment	EEV basis at market value
Holding company (including central finance subsidiaries) cash and short-term investments	(2,626)	–	(2,626)	(2,173)	–	(2,173)
Central funds ^{note}						
Subordinated debt	5,772	182	5,954	4,018	211	4,229
Senior debt	549	175	724	549	142	691
	6,321	357	6,678	4,567	353	4,920
Holding company net borrowings	3,695	357	4,052	2,394	353	2,747
Prudential Capital bank loan	275	–	275	275	–	275
Jackson surplus notes	202	65	267	169	55	224
Net core structural borrowings of shareholder-financed operations	4,172	422	4,594	2,838	408	3,246

Note

In June 2016, the Company issued core structural borrowings of US\$1,000 million 5.25 per cent Tier 2 perpetual subordinated notes. The proceeds net of costs were £681 million. In September 2016, the Company issued core structural borrowings of US\$725 million 4.38 per cent Tier 2 perpetual subordinated notes. The proceeds net of costs were £546 million. The movement in IFRS basis core structural borrowings from 2015 to 2016 also includes foreign exchange effects.

9 Reconciliation of movement in shareholders' equity

	2016 £m						
	Long-term business operations				Asset management and UK general insurance commission	Other operations ^{note (i)}	Group total
	Asia operations ^{note (i)}	US operations	UK insurance operations*	Total long-term business operations			
Operating profit based on longer-term investment returns:							
Long-term business:							
New business ^{note 4}	2,030	790	268	3,088	–	–	3,088
Business in force ^{note 5}	1,044	1,181	375	2,600	–	–	2,600
	3,074	1,971	643	5,688	–	–	5,688
Asset management and general insurance commission	–	–	–	–	508	–	508
Other results	–	–	(33)	(33)	–	(666)	(699)
Post-tax operating profit	3,074	1,971	610	5,655	508	(666)	5,497
Loss attaching to the held for sale Korea life business ^{note 17}	(395)	–	–	(395)	–	(15)	(410)
Other non-operating (loss) profit	(30)	(1,057)	694	(393)	(38)	(140)	(571)
Profit for the year	2,649	914	1,304	4,867	470	(821)	4,516
Other items taken directly to equity:							
Exchange movements on foreign operations and net investment hedges	2,714	1,878	–	4,592	83	(464)	4,211
Intra-group dividends and investment in operations ^{note (ii)}	(594)	(388)	(281)	(1,263)	(462)	1,725	–
External dividends	–	–	–	–	–	(1,267)	(1,267)
Mark to market value movements on Jackson assets backing surplus and required capital	–	(11)	–	(11)	–	–	(11)
Other movements ^{note (iii)}	(6)	(75)	(169)	(250)	9	(126)	(367)
Net increase in shareholders' equity	4,763	2,318	854	7,935	100	(953)	7,082
Shareholders' equity at beginning of year:							
As previously reported	13,643	9,487	9,647	32,777	2,354	(2,772)	32,359
Effect of implementation of Solvency II ^{note 2}	–	–	(473)	(473)	–	–	(473)
Other opening adjustments ^{note (v)}	66	–	279	345	–	(345)	–
	13,709	9,487	9,453	32,649	2,354	(3,117)	31,886
Shareholders' equity at end of year	18,472	11,805	10,307	40,584	2,454	(4,070)	38,968

	2016 £m						Group total
	Long-term business operations				Asset management and UK general insurance commission	Other operations note (i)	
	Asia operations note (i)	US operations	UK insurance operations*	Total long-term business operations			
Representing:							
Statutory IFRS basis shareholders' equity:							
Net assets (liabilities)	4,747	5,204	5,974	15,925	1,224	(3,958)	13,191
Goodwill	–	–	–	–	1,230	245	1,475
Total IFRS basis shareholders' equity	4,747	5,204	5,974	15,925	2,454	(3,713)	14,666
Additional retained profit (loss) on an EEV basis ^{note (iv)}	13,725	6,601	4,333	24,659	–	(357)	24,302
EEV basis shareholders' equity	18,472	11,805	10,307	40,584	2,454	(4,070)	38,968
Balance at beginning of year:*							
Statutory IFRS basis shareholders' equity:							
Net assets (liabilities)	3,789	4,154	5,397	13,340	1,124	(2,972)	11,492
Goodwill	–	–	–	–	1,230	233	1,463
Total IFRS basis shareholders' equity	3,789	4,154	5,397	13,340	2,354	(2,739)	12,955
Additional retained profit (loss) on an EEV basis ^{note (iv)}	9,920	5,333	4,056	19,309	–	(378)	18,931
EEV basis shareholders' equity	13,709	9,487	9,453	32,649	2,354	(3,117)	31,886

* The balance at the beginning of the year has been presented after the adjustments for the impact of Solvency II for UK insurance operations at 1 January 2016 (see note 2 for details), together with the effect of a classification change (see note (v) below).

Notes

- (i) Other operations of £(4,070) million represents the shareholders' equity of £(4,315) million for other operations as shown in the movement in shareholders' equity and includes goodwill of £245 million (2015: £233 million) related to Asia long-term operations.
- (ii) Intra-group dividends represent dividends that have been declared in the year and investments in operations reflect increases in share capital. The amounts included in note 11 for these items are as per the holding company cash flow at transaction rates. The difference primarily relates to intra-group loans, foreign exchange and other non-cash items.
- (iii) Other movements include reserve movements in respect of the shareholders' share of actuarial gains and losses on defined benefit pension schemes, share capital subscribed, share-based payments and treasury shares.
- (iv) The additional retained loss on an EEV basis for Other operations primarily represents the mark to market value adjustment for holding company net borrowings of a charge of £(357) million (2015: £(353) million), as shown in note 8.
- (v) Other opening adjustments represents the effect of a classification change of £345 million from Other operations to UK insurance operations of £279 million and to Asia insurance operations of £66 million in order to align with Solvency II segmental reporting, which has no overall effect on the Group's EEV.

Notes on the EEV basis results

Continued

10 Analysis of movement in net worth and value of in-force for long-term business

	2016 £m				
	Free surplus note 11	Required capital	Total net worth	Value of in-force business note	Total long-term business operations
Group					
Shareholders' equity at beginning of year:					
As previously reported	5,642	4,704	10,346	22,431	32,777
Opening adjustments*	(1,473)	4,578	3,105	(3,233)	(128)
	4,169	9,282	13,451	19,198	32,649
New business contribution	(903)	595	(308)	3,396	3,088
Existing business – transfer to net worth	3,060	(637)	2,423	(2,423)	–
Expected return on existing business ^{note 5}	99	193	292	1,602	1,894
Changes in operating assumptions and experience variances ^{note 5}	857	(231)	626	80	706
Solvency II and restructuring costs	(33)	–	(33)	–	(33)
Post-tax operating profit	3,080	(80)	3,000	2,655	5,655
Loss attaching to held for sale Korea life business ^{note 9}	(86)	–	(86)	(309)	(395)
Other non-operating items	(932)	505	(427)	34	(393)
Profit for the year from long-term business	2,062	425	2,487	2,380	4,867
Exchange movements on foreign operations and net investment hedges	633	589	1,222	3,370	4,592
Intra-group dividends and investment in operations	(1,263)	–	(1,263)	–	(1,263)
Other movements	(250)	–	(250)	(11)	(261)
Shareholders' equity at end of year*	5,351	10,296	15,647	24,937	40,584
Asia operations					
New business contribution	(476)	139	(337)	2,367	2,030
Existing business – transfer to net worth	1,157	(92)	1,065	(1,065)	–
Expected return on existing business ^{note 5}	39	54	93	773	866
Changes in operating assumptions and experience variances ^{note 5}	14	94	108	70	178
Post-tax operating profit	734	195	929	2,145	3,074
Loss attaching to held for sale Korea life business ^{note 9}	(86)	–	(86)	(309)	(395)
Other non-operating items	(91)	29	(62)	32	(30)
Profit for the year from long-term business	557	224	781	1,868	2,649
US operations					
New business contribution	(298)	324	26	764	790
Existing business – transfer to net worth	1,223	(213)	1,010	(1,010)	–
Expected return on existing business ^{note 5}	47	53	100	483	583
Changes in operating assumptions and experience variances ^{note 5}	596	5	601	(3)	598
Post-tax operating profit	1,568	169	1,737	234	1,971
Non-operating items	(770)	(108)	(878)	(179)	(1,057)
Profit for the year from long-term business	798	61	859	55	914

	2016 £m				
	Free surplus note 11	Required capital	Total net worth	Value of in-force business note	Total long-term business operations
UK insurance operations					
New business contribution	(129)	132	3	265	268
Existing business – transfer to net worth	680	(332)	348	(348)	–
Expected return on existing business ^{note 5}	13	86	99	346	445
Changes in operating assumptions and experience variances ^{note 5}	247	(330)	(83)	13	(70)
Solvency II and restructuring costs	(33)	–	(33)	–	(33)
Post-tax operating profit	778	(444)	334	276	610
Non-operating items	(71)	584	513	181	694
Profit for the year from long-term business	707	140	847	457	1,304

* Opening adjustments represent the impact of implementation of Solvency II for UK insurance operations at 1 January 2016 (see note 2 for details), together with the effect of a classification change, as discussed in note 9(v).

Note

The net value of in-force business comprises the value of future margins from current in-force business less the cost of holding required capital as shown below:

	31 Dec 2016 £m				31 Dec 2015 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations*	Total long-term business operations
Value of in-force business before deduction of cost of capital and time value of guarantees	15,371	8,584	3,468	27,423	11,280	7,355	3,043	21,678
Cost of capital	(477)	(319)	(692)	(1,488)	(438)	(229)	(713)	(1,380)
Cost of time value of guarantees	(87)	(911)	–	(998)	(88)	(1,012)	–	(1,100)
Net value of in-force business	14,807	7,354	2,776	24,937	10,754	6,114	2,330	19,198
Total net worth	3,665	4,451	7,531	15,647	2,955	3,373	7,123	13,451
Total embedded value^{note 9}	18,472	11,805	10,307	40,584	13,709	9,487	9,453	32,649

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results in the table above are presented after the adjustments for the impact of Solvency II for UK insurance operations at 1 January 2016, together with the effect of a classification change, as discussed in note 9(v).

Notes on the EEV basis results

Continued

11 Analysis of movement in free surplus

For EEV covered business, free surplus is the excess of the regulatory basis net assets for EEV reporting purposes (net worth) over the capital required to support the covered business. Where appropriate, adjustments are made to the net worth so that backing assets are included at fair value rather than cost so as to comply with the EEV Principles. Free surplus for asset management operations and the UK general insurance commission is taken to be IFRS basis post-tax earnings and shareholders' equity, net of goodwill. Free surplus for other operations is taken to be EEV basis post-tax earnings and shareholders' equity for central operations, net of goodwill, with subordinated debt recorded as free surplus to the extent that it is classified as available capital under Solvency II.

Free surplus for insurance and asset management operations and Group total free surplus, including other operations, are shown in the tables below.

(i) Underlying free surplus generated – insurance and asset management operations

The 2015 comparative results are shown below on both actual exchange rates (AER) and constant exchange rates (CER) bases. The 2015 CER comparative results are translated at 2016 average exchange rates.

	2016 £m	2015* £m		% change	
		AER	CER	AER	CER
Asia operations					
Underlying free surplus generated from in-force life business	1,210	951	1,064	27%	14%
Investment in new business <small>note (iii)(a)</small>	(476)	(386)	(426)	(23)%	(12)%
Long-term business	734	565	638	30%	15%
Eastspring Investments <small>note (iii)(b)</small>	125	101	112	24%	12%
Total	859	666	750	29%	15%
US operations					
Underlying free surplus generated from in-force life business	1,866	1,426	1,608	31%	16%
Investment in new business <small>note (iii)(a)</small>	(298)	(267)	(301)	(12)%	1%
Long-term business	1,568	1,159	1,307	35%	20%
Broker-dealer and asset management <small>note (iii)(b)</small>	(3)	7	8	(143)%	(138)%
Total	1,565	1,166	1,315	34%	19%
UK insurance operations					
Underlying free surplus generated from in-force life business	907	878	878	3%	3%
Investment in new business <small>note (iii)(a)</small>	(129)	(65)	(65)	(98)%	(98)%
Long-term business [†]	778	813	813	(4)%	(4)%
General insurance commission <small>note (iii)(b)</small>	23	22	22	5%	5%
Total	801	835	835	(4)%	(4)%
M&G					
Prudential Capital	341	358	358	(5)%	(5)%
Underlying free surplus generated from insurance and asset management operations					
	3,588	3,043	3,276	18%	10%
Representing:					
Long-term business:					
Expected in-force cash flows (including expected return on net assets)	3,159	2,693	2,941	17%	7%
Effects of changes in operating assumptions, experience variances and other items	824	562	609	47%	35%
Underlying free surplus generated from in-force life business	3,983	3,255	3,550	22%	12%
Investment in new business <small>note (iii)(a)</small>	(903)	(718)	(792)	(26)%	(14)%
Total long-term business* [†]	3,080	2,537	2,758	21%	12%
Asset management and general insurance commission <small>note (iii)(b)</small>	508	506	518	0%	(2)%
	3,588	3,043	3,276	18%	10%

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflected the Solvency I basis being the regime applicable for the year.

(ii) Underlying free surplus generated – total Group

	2016 £m	2015* £m		% change	
		AER	CER	AER	CER
Underlying free surplus generated from insurance and asset management operations ^{note (i)}	3,588	3,043	3,276	18%	10%
Other income and expenditure net of restructuring and Solvency II costs ^{note (iii)(b)}	(703)	(588)	(588)	(20)%	(20)%
Interest received on tax settlement	37	–	–	n/a	n/a
Group total underlying free surplus generated, including other operations	2,922	2,455	2,688	19%	9%

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

(iii) Movement in free surplus – long-term business and asset management operations

	2016 £m				
	Long-term business ^{note 10}	Asset management and UK general insurance commission ^{note (b)}	Total insurance and asset management operations	Central and other operations ^{note (b)}	Group total
Underlying free surplus generated	3,080	508	3,588	(666)	2,922
Loss attaching to held for sale Korea life business ^{note 10}	(86)	–	(86)	–	(86)
Other non-operating items ^{note (c)}	(932)	(38)	(970)	(169)	(1,139)
Net cash flows to parent company ^{note (d)}	2,062	470	2,532	(835)	1,697
External dividends	(1,236)	(482)	(1,718)	1,718	–
Exchange rate movements, timing differences and other items ^{note (e)}	356	112	468	1,144	1,612
Net movement in free surplus	1,182	100	1,282	760	2,042
Balance at 1 January 2016:					
Balance at beginning of year	5,642	1,124	6,766	1,224	7,990
Opening adjustments*	(1,473)	–	(1,473)	(345)	(1,818)
	4,169	1,124	5,293	879	6,172
Balance at end of year	5,351	1,224	6,575	1,639	8,214
Representing:					
Asia operations			2,142	–	2,142
US operations			2,418	–	2,418
UK operations			2,015	–	2,015
Other operations			–	1,639	1,639
			6,575	1,639	8,214
Balance at 1 January 2016:*					
Asia operations			1,814	–	1,814
US operations			1,733	–	1,733
UK operations			1,746	–	1,746
Other operations			–	879	879
			5,293	879	6,172

* Opening adjustments represent the impact of implementation of Solvency II at 1 January 2016 (see note 2 for details), together with the effect of a reclassification between long-term business and other operations, as discussed in note 9(v). Balance at 1 January 2016 has been presented after the opening adjustments.

Notes on the EEV basis results

Continued

11 Analysis of movement in free surplus continued

(iii) Movement in free surplus – long-term business and asset management operations continued

	2015* £m				
	Long-term business	Asset management and UK general insurance commission note (b)	Total insurance and asset management operations	Central and other operations note (b)	Group total
Underlying free surplus generated	2,537	506	3,043	(588)	2,455
Disposal of Japan life business	23	–	23	–	23
Results of the held for sale Korea life business ^{note 17}	15	–	15	–	15
Other non-operating items ^{note (c)}	(415)	(53)	(468)	29	(439)
	2,160	453	2,613	(559)	2,054
Net cash flows to parent company ^{note (d)}	(1,271)	(354)	(1,625)	1,625	–
External dividends	–	–	–	(974)	(974)
Exchange rate movements, timing differences and other items ^{note (e)}	560	159	719	(307)	412
Net movement in free surplus	1,449	258	1,707	(215)	1,492
Balance at beginning of year	4,193	866	5,059	1,439	6,498
Balance at end of year	5,642	1,124	6,766	1,224	7,990

* The 2015 comparative results have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

Notes

- (a) Free surplus invested in new business represents amounts set aside for required capital and acquisition costs.
- (b) Free surplus for asset management operations and the UK general insurance commission is taken to be IFRS basis post-tax earnings and shareholders' equity, net of goodwill. Free surplus for other operations is taken to be EEV basis post-tax earnings and shareholders' equity net of goodwill, with subordinated debt recorded as free surplus to the extent that it is classified as available capital under Solvency II.
- (c) Non-operating items are principally short-term fluctuations in investment returns and the effect of changes in economic assumptions for long-term business operations.
- (d) Net cash flows to parent company for long-term business operations reflect the flows as included in the holding company cash flow at transaction rates.
- (e) Exchange rate movements, timing differences and other items represent:

	2016 £m				
	Long-term business	Asset management and UK general insurance commission	Total insurance and asset management operations	Central and other operations	Group total
Exchange rate movements	633	83	716	48	764
Mark to market value movements on Jackson assets backing surplus and required capital ^{note 9}	(11)	–	(11)	–	(11)
Other items ^{note (f)}	(266)	29	(237)	1,096	859
	356	112	468	1,144	1,612

	2015 £m				
	Long-term business	Asset management and UK general insurance commission	Total insurance and asset management operations	Central and other operations	Group total
Exchange rate movements	67	3	70	10	80
Mark to market value movements on Jackson assets backing surplus and required capital	(76)	–	(76)	–	(76)
Other items ^{note (f)}	569	156	725	(317)	408
	560	159	719	(307)	412

- (f) Other items include the movements in subordinated debt for Other operations, together with the effect of intra-group loans and other non-cash items. The 2015 results also included the effect of a classification change of £702 million from Other operations to UK insurance operations in order to align with Solvency II segmental reporting, with no overall effect on the Group's EEV.

12 Expected transfer of value of in-force business and required capital to free surplus

The discounted value of in-force business and required capital can be reconciled to the 2016 and 2015 totals for the emergence of free surplus as follows:

	2016 £m	2015* £m
Required capital ^{note 10}	10,296	9,282
Value of in-force business (VIF) ^{note 10}	24,937	19,198
Add back: deduction for cost of time value of guarantees ^{note 10}	998	1,100
Expected free surplus generation from the sale of Korea life business ^{note 17}	(76)	–
Other items ^{note}	(1,430)	(1,714)
Total	34,725	27,866

* In order to show the cash flows for UK insurance operations on a comparable basis, the 2015 comparative results for UK insurance operations reflect the impact of the implementation of Solvency II at 1 January 2016 (see note 2 for details).

Note

'Other items' represent amounts incorporated into VIF where there is no definitive time frame for when the payments will be made or receipts received. In particular, other items include the deduction of the shareholders' interest in the estate, the value of which is derived by increasing final bonus rates so as to exhaust the estate over the lifetime of the in-force with-profits business. This is an assumption to give an appropriate valuation. To be conservative this item is excluded from the expected free surplus generation profile below.

Cash flows are projected on a deterministic basis and are discounted at the appropriate risk discount rate. The modelled cash flows use the same methodology underpinning the Group's EEV reporting and so are subject to the same assumptions and sensitivities.

The table below shows how the VIF generated by the in-force business and the associated required capital is modelled as emerging into free surplus over future years.

		2016 £m					
		Expected period of conversion of future post-tax distributable earnings and required capital flows to free surplus					
	2016 total as shown above	1-5 years	6-10 years	11-15 years	16-20 years	21-40 years	40+ years
Asia operations*	16,393	5,141	3,331	2,209	1,515	3,118	1,079
US operations	10,556	5,542	3,203	1,240	372	199	–
UK insurance operations	7,776	2,890	1,931	1,119	901	899	36
Total	34,725	13,573	8,465	4,568	2,788	4,216	1,115
	100%	39%	25%	13%	8%	12%	3%

		2015 £m					
		Expected period of conversion of future post-tax distributable earnings and required capital flows to free surplus					
	2015 total as shown above	1-5 years	6-10 years	11-15 years	16-20 years	21-40 years	40+ years
Asia operations	11,858	3,916	2,552	1,669	1,115	2,055	551
US operations	8,740	4,361	2,752	1,129	383	115	–
UK insurance operations†	7,268	2,446	1,812	1,198	866	920	26
Total†	27,866	10,723	7,116	3,996	2,364	3,090	577
	100%	38%	26%	14%	9%	11%	2%

* Asia operations exclude the cash flows in respect of the held for sale Korea life business.

† In order to show the cash flows for UK insurance operations on a comparable basis, the 2015 comparative results for UK insurance operations reflect the impact of the implementation of Solvency II at 1 January 2016 (see note 2 for details).

Notes on the EEV basis results

Continued

13 Sensitivity of results to alternative assumptions

(a) Sensitivity analysis – economic assumptions

The tables below show the sensitivity of the embedded value as at 31 December 2016 and 31 December 2015 and the new business contribution after the effect of required capital for 2016 and 2015 to:

- 1 per cent increase in the discount rates;
- 1 per cent increase in interest rates, including all consequential changes (assumed investment returns for all asset classes, market values of fixed interest assets, risk discount rates);
- 0.5 per cent decrease in interest rates* (1 per cent decrease for 2015), including all consequential changes (assumed investment returns for all asset classes, market values of fixed interest assets, risk discount rates);
- 1 per cent rise in equity and property yields;
- 10 per cent fall in market value of equity and property assets (embedded value only);
- The statutory minimum capital level by contrast to EEV basis required capital for (embedded value only); and
- 5 basis points increase in UK long-term expected defaults.

* To reflect the current level of low interest rates, the sensitivity of new business contribution and embedded value to a 0.5 per cent reduction in interest rates is shown for 2016.

In each sensitivity calculation, all other assumptions remain unchanged except where they are directly affected by the revised economic conditions.

New business contribution

	2016 £m				2015 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations*	US operations	UK insurance operations†	Total long-term business operations
New business contribution ^{note 4}	2,030	790	268	3,088	1,482	809	318	2,609
Discount rates – 1% increase	(375)	(43)	(32)	(450)	(254)	(38)	(40)	(332)
Interest rates – 1% increase	51	64	27	142	30	80	7	117
Interest rates – 1% decrease	–	–	–	–	(78)	(127)	(9)	(214)
Interest rates – 0.5% decrease	(30)	(49)	(15)	(94)	–	–	–	–
Equity/property yields – 1% rise	129	91	28	248	71	95	20	186
Long-term expected defaults – 5 bps increase	–	–	(2)	(2)	–	–	(8)	(8)

* In order to show the Asia long-term business on a comparable basis, the 2015 comparatives for new business contribution have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

Embedded value of long-term business operations

	31 Dec 2016 £m				31 Dec 2015 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations*	Total long-term business operations
Shareholders' equity ^{note 9}	18,472	11,805	10,307	40,584	13,643	9,487	9,647	32,777
Discount rates – 1% increase	(2,078)	(379)	(809)	(3,266)	(1,448)	(271)	(586)	(2,305)
Interest rates – 1% increase	(701)	(241)	(638)	(1,580)	(380)	(46)	(328)	(754)
Interest rates – 1% decrease	–	–	–	–	132	(93)	426	465
Interest rates – 0.5% decrease	248	25	369	642	–	–	–	–
Equity/property yields – 1% rise	771	653	314	1,738	506	514	271	1,291
Equity/property market values – 10% fall	(361)	(11)	(399)	(771)	(246)	(411)	(373)	(1,030)
Statutory minimum capital	150	223	–	373	148	162	4	314
Long-term expected defaults – 5 bps increase	–	–	(138)	(138)	–	–	(141)	(141)

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

The sensitivities shown above are for the impact of instantaneous changes on the embedded value of long-term business operations and include the combined effect on the value of in-force business and net assets at the balance sheet dates indicated. If the change in assumptions shown in the sensitivities were to occur, then the effect shown above would be recorded within two components of the profit analysis for the following year. These are for the effect of economic assumption changes and short-term fluctuations in investment returns. In addition to the sensitivity effects shown above, the other components of the profit for the following year would be calculated by reference to the altered assumptions, for example new business contribution and unwind of discount, together with the effect of other changes such as altered corporate bond spreads. In addition for changes in interest rates, the effect shown above for Jackson would also be recorded within the fair value movements on assets backing surplus and required capital, which are taken directly to shareholders' equity.

(b) Sensitivity analysis – non-economic assumptions

The tables below show the sensitivity of the embedded value as at 31 December 2016 and 31 December 2015 and the new business contribution after the effect of required capital for 2016 and 2015 to:

- 10 per cent proportionate decrease in maintenance expenses (a 10 per cent sensitivity on a base assumption of £10 per annum would represent an expense assumption of £9 per annum);
- 10 per cent proportionate decrease in lapse rates (a 10 per cent sensitivity on a base assumption of 5 per cent would represent a lapse rate of 4.5 per cent per annum); and
- 5 per cent proportionate decrease in base mortality and morbidity rates (ie increased longevity).

New business contribution

	2016 £m				2015 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations*	US operations	UK insurance operations†	Total long-term business operations
New business contribution ^{note 4}	2,030	790	268	3,088	1,482	809	318	2,609
Maintenance expenses – 10% decrease	33	10	3	46	27	8	2	37
Lapse rates – 10% decrease	132	26	11	169	104	25	9	138
Mortality and morbidity – 5% decrease	57	4	(4)	57	49	1	(13)	37
Change representing effect on:								
Life business	57	4	–	61	49	1	1	51
UK annuities	–	–	(4)	(4)	–	–	(14)	(14)

* In order to show the Asia long-term business on a comparable basis, the 2015 comparatives for new business contribution have been adjusted from those previously published for the reclassification of the results attributable to the held for sale Korea life business (see note 17 for details).

† The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

Embedded value of long-term business operations

	31 Dec 2016 £m				31 Dec 2015 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations*	Total long-term business operations
Shareholders' equity ^{note 9}	18,472	11,805	10,307	40,584	13,643	9,487	9,647	32,777
Maintenance expenses – 10% decrease	187	104	91	382	153	80	68	301
Lapse rates – 10% decrease	659	533	79	1,271	508	394	75	977
Mortality and morbidity – 5% decrease	554	192	(302)	444	449	172	(299)	322
Change representing effect on:								
Life business	554	192	12	758	449	172	11	632
UK annuities	–	–	(314)	(314)	–	–	(310)	(310)

* The 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

Notes on the EEV basis results

Continued

14 Methodology and accounting presentation

(a) Methodology

Overview

The embedded value is the present value of the shareholders' interest in the earnings distributable from assets allocated to covered business after sufficient allowance has been made for the aggregate risks in that business. The shareholders' interest in the Group's long-term business comprises:

- The present value of future shareholder cash flows from in-force covered business (value of in-force business), less deductions for:
 - The cost of locked-in required capital; and
 - The time value of cost of options and guarantees;
- Locked-in required capital; and
- The shareholders' net worth in excess of required capital (free surplus).

The value of future new business is excluded from the embedded value.

Notwithstanding the basis of presentation of results as explained in note 14(b)(iii), no smoothing of market or account balance values, unrealised gains or investment return is applied in determining the embedded value or profit. Separately, the analysis of profit is delineated between operating profit based on longer-term investment returns and other constituent items, as explained in note 14(b)(i).

(i) Covered business

The EEV results for the Group are prepared for 'covered business', as defined by the EEV Principles. Covered business represents the Group's long-term insurance business, including the Group's investments in joint venture and associate insurance operations, for which the value of new and in-force contracts is attributable to shareholders. The post-tax EEV basis results for the Group's covered business are then combined with the post-tax IFRS basis results of the Group's asset management and other operations. Under the EEV Principles, the results for covered business incorporate the projected margins of attaching internal asset management, as described in note 14(a)(vii).

The definition of long-term business operations comprises those contracts falling under the definition for regulatory purposes together with, for US operations, contracts that are in substance the same as guaranteed investment contracts (GICs) but do not fall within the technical definition.

Covered business comprises the Group's long-term business operations, with two exceptions:

- The closed Scottish Amicable Insurance Fund (SAIF) which is excluded from covered business. SAIF is a ring-fenced sub-fund of the Prudential Assurance Company (PAC) long-term fund, established by a Court-Approved Scheme of Arrangement in October 1997. SAIF is closed to new business and the assets and liabilities of the fund are wholly attributable to the policyholders of the fund.
- The presentational treatment of the Group's principal defined benefit pension scheme, the Prudential Staff Pension Scheme (PSPS). The partial recognition of the surplus for PSPS is recognised in 'Other' operations.

A small amount of UK group pensions business is also not modelled for EEV reporting purposes.

(ii) Valuation of in-force and new business

The embedded value results are prepared incorporating best estimate assumptions about all relevant factors including levels of future investment returns, expenses, persistency, mortality and morbidity, as described in note 15. These assumptions are used to project future cash flows. The present value of the future cash flows is then calculated using a discount rate which reflects both the time value of money and the non-diversifiable risks associated with the cash flows that are not otherwise allowed for.

New business

In determining the EEV basis value of new business, premiums are included in projected cash flows on the same basis of distinguishing annual and single premium business as set out for statutory basis reporting.

New business premiums reflect those premiums attaching to covered business, including premiums for contracts classified as investment products for IFRS basis reporting. New business premiums for regular premium products are shown on an annualised basis. Internal vesting business is classified as new business where the contracts include an open market option.

The post-tax contribution from new business represents profits determined by applying operating assumptions as at the end of the year.

For UK immediate annuity business and single premium Universal Life products in Asia, primarily in Singapore, the new business contribution is determined by applying economic assumptions reflecting point-of-sale market conditions. This is consistent with how the business is priced as crediting rates are linked to yields on specific assets and the yield is locked in when the assets are purchased at the point of sale of the policy. For other business within the Group, end-of-year economic assumptions are used.

New business profitability is a key metric for the Group's management of the development of the business. In addition, post-tax new business margins are shown by reference to annual premium equivalents (APE) and the present value of new business premiums (PVNBP). These margins are calculated as the percentage of the value of new business profit to APE and PVNBP. APE is calculated as the aggregate of regular premiums and one-tenth of single premiums. PVNBP is calculated as equalling single premiums plus the present value of expected premiums of regular premium new business, allowing for lapses and other assumptions made in determining the EEV new business contribution.

Valuation movements on investments

With the exception of debt securities held by Jackson, investment gains and losses during the year (to the extent that changes in capital values do not directly match changes in liabilities) are included directly in the profit for the year and shareholders' equity as they arise.

The results for any covered business conceptually reflect the aggregate of the IFRS results and the movements on the additional shareholders' interest recognised on the EEV basis. Thus the start point for the calculation of the EEV results for Jackson, as for other businesses, reflects the market value movements recognised on an IFRS basis.

However, in determining the movements on the additional shareholders' interest, the basis for calculating the EEV result for Jackson acknowledges that, for debt securities backing liabilities, the aggregate EEV results reflect the fact that the value of in-force business instead incorporates the discounted value of future spread earnings. This value is not affected generally by short-term market movements on securities that, broadly speaking, are held for the longer term.

Fixed income securities backing the free surplus and required capital for Jackson are accounted for at fair value. However, consistent with the treatment applied under IFRS for Jackson securities classified as available-for-sale, movements in unrealised appreciation (depreciation) on these securities are accounted for in equity rather than in the income statement, as shown in the movement in shareholders' equity.

(iii) Cost of capital

A charge is deducted from the embedded value for the cost of locked-in required capital supporting the Group's long-term business. The cost is the difference between the nominal value of the capital and the discounted value of the projected releases of this capital, allowing for post-tax investment earnings on the capital.

The annual result is affected by the movement in this cost from year to year which comprises a charge against new business profit and generally a release in respect of the reduction in capital requirements for business in force as this runs off.

Where required capital is held within a with-profits long-term fund, the value placed on surplus assets in the fund is already discounted to reflect its release over time and no further adjustment is necessary in respect of required capital.

(iv) Financial options and guarantees

Nature of financial options and guarantees in Prudential's long-term business

Asia operations

Subject to local market circumstances and regulatory requirements, the guarantee features described below in respect of UK business broadly apply to similar types of participating contracts principally written in Hong Kong, Singapore and Malaysia. Participating products have both guaranteed and non-guaranteed elements.

There are also various non-participating long-term products with guarantees. The principal guarantees are those for whole-of-life contracts with floor levels of policyholder benefits that accrue at rates set at inception and do not vary subsequently with market conditions.

US operations (Jackson)

The principal financial options and guarantees in Jackson are associated with the fixed annuity (FA) and variable annuity (VA) lines of business.

Fixed annuities provide that, at Jackson's discretion, it may reset the interest rate credited to policyholders' accounts, subject to a guaranteed minimum. The guaranteed minimum return varies from 1.0 per cent to 5.5 per cent for both years, depending on the particular product, jurisdiction where issued, and date of issue. For 2016, 87 per cent (2015: 87 per cent) of the account values on fixed annuities are for policies with guarantees of 3 per cent or less. The average guarantee rate is 2.6 per cent (2015: 2.6 per cent).

Fixed annuities also present a risk that policyholders will exercise their option to surrender their contracts in periods of rapidly rising interest rates, possibly requiring Jackson to liquidate assets at an inopportune time.

Jackson issues VA contracts where it contractually guarantees to the contract holder either: a) return of no less than total deposits made to the contract adjusted for any partial withdrawals; b) total deposits made to the contract adjusted for any partial withdrawals plus a minimum return; or c) the highest contract value on a specified anniversary date adjusted for any withdrawals following the specified contract anniversary. These guarantees include benefits that are payable upon depletion of funds (Guaranteed Minimum Withdrawal Benefit (GMWB)), as death benefits (Guaranteed Minimum Death Benefits (GMDB)), or as income benefits (Guaranteed Minimum Income Benefits (GMIB)). These guarantees generally protect the policyholders' value in the event of poor equity market performance. Jackson hedges the GMWB and GMDB guarantees through the use of equity options and futures contracts, and fully reinsures the GMIB guarantees.

Jackson also issues fixed index annuities (FIA) that enable policyholders to obtain a portion of an equity-linked return while providing a guaranteed minimum return. The guaranteed minimum returns are of a similar nature to those described above for fixed annuities.

Notes on the EEV basis results

Continued

14 Methodology and accounting presentation continued

UK insurance operations

For covered business, the only significant financial options and guarantees in the UK insurance operations arise in the with-profits fund.

With-profits products provide returns to policyholders through bonuses that are smoothed. There are two types of bonus – annual and final. Annual bonuses are declared once a year and, once credited, are guaranteed in accordance with the terms of the particular product. Unlike annual bonuses, final bonuses are guaranteed only until the next bonus declaration. The PAC with-profits fund also held a provision on the Solvency II basis of £62 million at 31 December 2016 (Pillar I Peak 2 basis at 31 December 2015: £47 million) to honour guarantees on a small number of guaranteed annuity option products.

The Group's main exposure to guaranteed annuity options in the UK is through the non-covered business of SAIF. A provision on the Solvency II basis of £571 million was held in SAIF at 31 December 2016 (Pillar I Peak 2 basis at 31 December 2015: £412 million) to honour the guarantees. As described in note 14(a)(i), the assets and liabilities are wholly attributable to the policyholders of the fund. Therefore the movement in the provision has no direct impact on shareholders' funds.

Time value

The value of financial options and guarantees comprises two parts:

- The first part arises from a deterministic valuation on best estimate assumptions (the intrinsic value); and
- The second part arises from the variability of economic outcomes in the future (the time value).

Where appropriate, a full stochastic valuation has been undertaken to determine the time value of the financial options and guarantees.

The economic assumptions used for the stochastic calculations are consistent with those used for the deterministic calculations. Assumptions specific to the stochastic calculations reflect local market conditions and are based on a combination of actual market data, historic market data and an assessment of long-term economic conditions. Common principles have been adopted across the Group for the stochastic asset models, for example, separate modelling of individual asset classes but with an allowance for correlation between the various asset classes. Details of the key characteristics of each model are given in notes 15(iv), (v) and (vi).

In deriving the time value of financial options and guarantees, management actions in response to emerging investment and fund solvency conditions have been modelled. Management actions encompass, but are not confined to investment allocation decisions, levels of reversionary and terminal bonuses and credited rates. Bonus rates are projected from current levels and varied in accordance with assumed management actions applying in the emerging investment and fund solvency conditions.

In all instances, the modelled actions are in accordance with approved local practice and therefore reflect the options actually available to management. For the PAC with-profits fund, the actions assumed are consistent with those set out in the Principles and Practices of Financial Management which explains how regular and final bonus rates within the discretionary framework are determined, subject to the general legislative requirements applicable.

(v) Level of required capital

In adopting the EEV Principles, Prudential has based required capital on its internal targets subject to it being at least the local statutory minimum requirements.

For with-profits business written in a segregated life fund, as is the case in Asia and the UK, the capital available in the fund is sufficient to meet the required capital requirements. Following the implementation of Solvency II which became effective on 1 January 2016, a portion of future shareholder transfers expected from the with-profits fund is recognised within net worth, together with the associated capital requirements.

For shareholder-backed business the following capital requirements apply:

- Asia operations: the level of required capital has been set to an amount at least equal to the higher of local statutory requirements and the internal target;
- US operations: the level of required capital has been set at 250 per cent of the risk-based capital (RBC) required by the National Association of Insurance Commissioners (NAIC) at the Company Action Level (CAL); and
- UK insurance operations: the capital requirements are set at the Solvency II Solvency Capital Requirement (SCR) for shareholder-backed business as a whole; for 2015, the capital requirements were set to an amount at least equal to the higher of Solvency I Pillar I and Pillar II requirements for shareholder-backed business as a whole.

(vi) With-profits business and the treatment of the estate

The proportion of surplus allocated to shareholders from the PAC with-profits fund has been based on the present level of 10 per cent. The value attributed to the shareholders' interest in the estate is derived by increasing final bonus rates (and related shareholder transfers) so as to exhaust the estate over the lifetime of the in-force with-profits business. In any scenarios where the total assets of the life fund are insufficient to meet policyholder claims in full, the excess cost is fully attributed to shareholders. Similar principles apply, where appropriate, for other with-profits funds of the Group's Asia operations.

(vii) Internal asset management

The in-force and new business results from long-term business include the projected value of profits or losses from asset management and service companies that support the Group's covered insurance businesses. The results of the Group's asset management operations include the current year profits from the management of both internal and external funds. EEV basis shareholders' other income and expenditure is adjusted to deduct the unwind of the expected internal asset management profit margin for the year. The deduction is on a basis consistent with that used for projecting the results for covered insurance business. Group operating profit accordingly includes the variance between actual and expected profit in respect of management of the assets for covered business.

(viii) Allowance for risk and risk discount rates

Overview

Under the EEV Principles, discount rates used to determine the present value of future cash flows are set by reference to risk-free rates plus a risk margin.

For Asia and US operations, the risk-free rates are based on 10-year local government bond yields.

For UK insurance operations, following the implementation of Solvency II on 1 January 2016, the EEV risk-free rate is based on the full term structure of interest rates, ie a yield curve, rather than using a flat 15-year gilt yield (as for 2015). This yield curve is used to determine the embedded value at the end of the reporting period.

The risk margin should reflect any non-diversifiable risk associated with the emergence of distributable earnings that is not allowed for elsewhere in the valuation. Prudential has selected a granular approach to better reflect differences in market risk inherent in each product group. The risk discount rate so derived does not reflect an overall Group market beta but instead reflects the expected volatility associated with the cash flows for each product category in the embedded value model.

Since financial options and guarantees are explicitly valued under the EEV methodology, discount rates under EEV are set excluding the effect of these product features.

The risk margin represents the aggregate of the allowance for market risk, additional allowance for credit risk where appropriate, and allowance for non-diversifiable non-market risk. No allowance is required for non-market risks where these are assumed to be fully diversifiable.

Market risk allowance

The allowance for market risk represents the beta multiplied by an equity risk premium. Except for UK shareholder-backed annuity business (as explained below) such an approach has been used for the Group's businesses.

The beta of a portfolio or product measures its relative market risk. The risk discount rates reflect the market risk inherent in each product group and hence the volatility of product cash flows. These are determined by considering how the profits from each product are affected by changes in expected returns on various asset classes. By converting this into a relative rate of return it is possible to derive a product-specific beta.

Product level betas reflect the most recent product mix to produce appropriate betas and risk discount rates for each major product grouping.

Additional credit risk allowance

The Group's methodology is to allow appropriately for credit risk. The allowance for total credit risk is to cover:

- Expected long-term defaults;
- Credit risk premium (to reflect the volatility in downgrade and default levels); and
- Short-term downgrades and defaults.

These allowances are initially reflected in determining best estimate returns and through the market risk allowance described above.

However, for those businesses largely backed by holdings of debt securities these allowances in the projected returns and market risk allowances may not be sufficient and an additional allowance may be appropriate.

The practical application of the allowance for credit risk varies depending upon the type of business as described below:

Asia operations

For Asia operations, the allowance for credit risk incorporated in the projected rates of return and the market risk allowance are sufficient. Accordingly, no additional allowance for credit risk is required.

The projected rates of return for holdings of corporate bonds comprise the risk-free rate plus an assessment of long-term spread over the risk-free rate.

Notes on the EEV basis results

Continued

14 Methodology and accounting presentation continued

US operations (Jackson)

For Jackson business, the allowance for long-term defaults is reflected in the risk margin reserve (RMR) charge which is deducted in determining the projected spread margin between the earned rate on the investments and the policyholder crediting rate.

The risk discount rate incorporates an additional allowance for credit risk premium and short-term downgrades and defaults as shown in note 15(ii). In determining this allowance a number of factors have been considered. These factors, in particular, include:

- How much of the credit spread on debt securities represents an increased credit risk not reflected in the RMR long-term default assumptions, and how much is liquidity premium (which is the premium required by investors to compensate for the risk of longer-term investments which cannot be easily converted into cash, and converted at the fair market value). In assessing this effect, consideration has been given to a number of approaches to estimating the liquidity premium by considering recent statistical data; and
- Policyholder benefits for Jackson fixed annuity business are not fixed. It is possible in adverse economic scenarios to pass on a component of credit losses to policyholders (subject to guarantee features) through lower investment return rates credited to policyholders. Consequently, it is only necessary to allow for the balance of the credit risk in the risk discount rate.

The level of the additional allowance is assessed at each reporting period to take account of prevailing credit conditions and as the business inforce alters over time. The additional allowance for variable annuity business has been set at one-fifth of the non-variable annuity business to reflect the proportion of the allocated holdings of general account debt securities.

The level of allowance differs from that for UK annuity business for investment portfolio differences and to take account of the management actions available in adverse economic scenarios to reduce crediting rates to policyholders, subject to guarantee features of the products.

UK operations

(1) Shareholder-backed annuity business

For Prudential's UK shareholder-backed annuity business, Prudential has used a market consistent embedded value (MCEV) approach to derive an implied risk discount rate which is then applied to the projected best estimate cash flows.

In the annuity MCEV calculations, as the assets are generally held to maturity to match liabilities, the future cash flows are discounted using the swap yield curve plus an allowance for liquidity premium based on the Solvency II allowance for credit risk. The Solvency II allowance is set by European Insurance and Occupational Pensions Authority (EIOPA) using a prudent assumption that all future downgrades will be replaced annually, and allowing for the credit spread floor.

For the purposes of presentation in the EEV results, the results on this basis are reconfigured. Under this approach the projected earned rate of return on the debt securities held is determined after allowing for a best estimate credit risk allowance. The remaining elements of prudence within the Solvency II allowance are incorporated into the risk margin included in the discount rate, shown in note 14(iii).

In 2015, the allowance for liquidity premium was based on Prudential's assessment of the expected return on the assets backing the annuity liabilities after allowing for expected long-term defaults, a credit risk premium, an allowance for a 1-notch downgrade of the asset portfolio subject to credit risk; and an allowance for short-term downgrades and defaults.

(2) With-profits fund non-profit annuity business

For UK non-profit annuity business including that attributable to the PAC with-profits fund, the basis for determining the aggregate allowance for credit risk is consistent with that applied for UK shareholder-backed annuity business (as described above). The allowance for credit risk for this business is taken into account in determining the projected cash flows to the with-profits fund, which are in turn discounted at the risk discount rate applicable to all of the projected cash flows of the fund.

(3) With-profits fund holdings of debt securities

The UK with-profits fund holds debt securities as part of its investment portfolio backing policyholder liabilities and unallocated surplus. The assumed earned rate for with-profit holdings of corporate bonds is defined as the risk-free rate plus an assessment of the long-term spread over risk-free, net of expected long-term defaults. This approach is similar to that applied for equities and properties for which the projected earned rate is defined as the risk-free rate plus a long-term risk premium.

Allowance for non-diversifiable non-market risks

The majority of non-market and non-credit risks are considered to be diversifiable. Finance theory cannot be used to determine the appropriate component of beta for non-diversifiable non-market risks since there is no observable risk premium associated with it that is akin to the equity risk premium. Recognising this, a pragmatic approach has been applied.

A base level allowance of 50 basis points is applied to cover the non-diversifiable non-market risks associated with the Group's businesses. For the Group's Asia operations in China, Indonesia, the Philippines, Taiwan, Thailand and Vietnam, additional allowances are applied for emerging market risk ranging from 100 to 250 basis points. For the Group's US business and UK business, no additional allowance is necessary.

In 2015, for UK shareholder-backed annuity business, a further allowance of 50 basis points was used to reflect the longevity risk, which is covered by the solvency capital requirements following the implementation of Solvency II from 1 January 2016.

(ix) Foreign currency translation

Foreign currency profits and losses have been translated at average exchange rates for the year. Foreign currency assets and liabilities have been translated at year-end exchange rates. The principal exchange rates are shown in note A1 of the IFRS financial statements.

(x) Taxation

In determining the post-tax profit for the year for covered business, the overall tax rate includes the impact of tax effects determined on a local regulatory basis. Tax payments and receipts included in the projected cash flows to determine the value of in-force business are calculated using rates that have been announced and substantively enacted by the end of the reporting period.

(xi) Inter-company arrangements

The EEV results for covered business incorporate annuities established in the PAC non-profit sub-fund from vesting pension policies in SAIF (which is not covered business). The EEV results also incorporate the effect of the reinsurance arrangement of non-profit immediate pension annuity liabilities of SAIF to the PAC non-profit sub-fund.

(b) Accounting presentation

(i) Analysis of post-tax profit

To the extent applicable, the presentation of the EEV post-tax profit for the year is consistent in the classification between operating and non-operating results with the basis that the Group applies for the analysis of IFRS basis results. Operating results reflect underlying results including longer-term investment returns (which are determined as described in note 14(b)(ii)) and incorporate the following:

- New business contribution, as defined in note 14(a)(ii);
- Unwind of discount on the value of in-force business and other expected returns, as described in note 14(b)(iii);
- The impact of routine changes of estimates relating to operating assumptions, as described in note 14(b)(iv); and
- Operating experience variances, as described in note 14(b)(v).

Non-operating results comprise the recurrent items of:

- Short-term fluctuations in investment returns;
- The mark to market value movements on core borrowings; and
- The effect of changes in economic assumptions.

In addition, non-operating profit also includes the effect of adjustment to the carrying value of the held for sale Korea life business in 2016 and a reclassification of the result attributable to the held for sale Korea life business in both years (see note 17 for details).

Total profit attributable to shareholders and basic earnings per share include these items, together with actual investment returns. The Group believes that operating profit, as adjusted for these items, better reflects underlying performance.

(ii) Investment returns included in operating profit

For the investment element of the assets covering the net worth of long-term insurance business, investment returns are recognised in operating results at the expected long-term rate of return. These expected returns are calculated by reference to the asset mix of the portfolio. For the purpose of calculating the longer-term investment return to be included in the operating result of the PAC with-profits fund of UK operations, where assets backing the liabilities and unallocated surplus are subject to market volatility, asset values at the beginning of the reporting period are adjusted to remove the effects of short-term market movements as explained in note 14(b)(iii).

For the purpose of determining the long-term returns for debt securities of US operations for fixed annuity and other general account business, a risk margin charge is included which reflects the expected long-term rate of default based on the credit quality of the portfolio. For Jackson, interest-related realised gains and losses are amortised to the operating results over the maturity period of the sold bonds and for equity-related investments, a long-term rate of return is assumed, which reflects the aggregation of end-of-period risk-free rates and equity risk premium. For US variable annuity separate account business, operating profit includes the unwind of discount on the opening value of in-force business adjusted to reflect end-of-period projected rates of return with the excess or deficit of the actual return recognised within non-operating profit, together with the related hedging activity.

For UK annuity business, rebalancing of the asset portfolio backing the liabilities to policyholders may, from time to time, take place to align it more closely with the internal benchmark of credit quality that management applies. Such rebalancing will result in a change in the projected yield on the asset portfolio and the allowance for default risk. The net effect of these changes is included in the operating result for the year.

Notes on the EEV basis results

Continued

14 Methodology and accounting presentation continued

(iii) Unwind of discount and other expected returns

The unwind of discount and other expected returns is determined by reference to:

- The value of in-force business at the beginning of the year (adjusted for the effect of current year economic and operating assumption changes); and
- Required capital and surplus assets.

UK operations

In applying this general approach, the unwind of discount included in operating profit is determined by reference to the following:

- The unwind is determined by reference to an implied single risk discount rate for 2016. Following the implementation of Solvency II the EEV risk-free rate is based on a yield curve (as set out in note 14a(viii)), which is used to derive a single implied discount rate which, if this rate had been used, would reproduce the same embedded value as that calculated by reference to the yield curve. The difference between the operating profit determined using the single implied discount rate and that derived using the yield curve is included within non-operating profit; and
- For with-profits business, the opening value of in-force is adjusted for the effect of short-term investment volatility due to market movements (ie smoothed). In the summary statement of financial position and for total profit reporting, asset values and investment returns are not smoothed. At 31 December 2016, the shareholders' interest in the smoothed surplus assets used for this purpose only were £77 million lower (31 December 2015: £58 million lower) than the surplus assets carried in the statement of financial position.

(iv) Effect of changes in operating assumptions

Operating profit includes the effect of changes to non-economic assumptions on the value of in-force at the end of the year. For presentational purposes the effect of changes is delineated to show the effect on the opening value of in-force as operating assumption changes, with the experience variances subsequently being determined by reference to the end-of-period assumptions (see note 14(b)(v)).

(v) Operating experience variances

Operating profit includes the effect of experience variances on non-economic assumptions, such as persistency, mortality and morbidity, expenses and other factors, which are calculated with reference to the end-of-period assumptions.

(vi) Effect of changes in economic assumptions

Movements in the value of in-force business at the beginning of the year caused by changes in economic assumptions, net of the related change in the time value of cost of options and guarantees, are recorded in non-operating results. For UK insurance operations, the effect is after allowing for the recalculation of transitional measures on technical provisions.

15 Assumptions

Principal economic assumptions

The EEV basis results for the Group's operations have been determined using economic assumptions where the long-term expected rates of return on investments and risk discount rates are set by reference to year-end risk-free rates of return (defined below for each of the Group's insurance operations). Expected returns on equity and property asset classes and corporate bonds are derived by adding a risk premium, based on the Group's long-term view, to the risk-free rate.

The total profit that emerges over the lifetime of an individual contract as calculated using the embedded value basis is the same as that calculated under the IFRS basis. Since the embedded value basis reflects discounted future cash flows, under this methodology the profit emergence is advanced, thus more closely aligning the timing of the recognition of profit with the efforts and risks of current management actions, particularly with regard to business sold during the year.

(i) Asia operations^{notes (b), (c)}

The risk-free rates of return for Asia operations are defined as 10-year government bond yields at the end of the year.

	Risk discount rate %				10-year government bond yield %		Expected long-term inflation %	
	New business		In-force business		31 Dec 2016	31 Dec 2015	31 Dec 2016	31 Dec 2015
	31 Dec 2016	31 Dec 2015	31 Dec 2016	31 Dec 2015				
China	9.6	9.4	9.6	9.4	3.1	2.9	2.5	2.5
Hong Kong ^{notes (b)(d)}	3.9	3.7	3.9	3.7	2.5	2.3	2.3	2.3
Indonesia	12.0	12.8	12.0	12.8	8.1	8.9	5.0	5.0
Malaysia ^{note (d)}	6.8	6.6	6.9	6.7	4.3	4.2	2.5	2.5
Philippines	11.6	11.3	11.6	11.3	4.8	4.6	4.0	4.0
Singapore ^{note (d)}	4.2	4.3	5.0	5.1	2.5	2.6	2.0	2.0
Taiwan	4.0	4.0	4.0	3.9	1.2	1.0	1.0	1.0
Thailand	9.4	9.3	9.4	9.3	2.7	2.5	3.0	3.0
Vietnam	13.0	13.8	13.0	13.8	6.3	7.1	5.5	5.5
Total weighted risk discount rate ^{note (a)}	5.3	5.9	6.1	6.4				

Notes

- (a) The weighted risk discount rates for Asia operations shown above have been determined by weighting each country's risk discount rates by reference to the post-tax EEV basis new business contribution and the closing value of in-force business. The changes in the risk discount rates for individual Asia territories reflect the movements in 10-year government bond yields, together with the effects of movements in the allowance for market risk and changes in product mix.
- (b) For Hong Kong the assumptions shown are for US dollar denominated business. For other territories, the assumptions are for local currency denominated business.
- (c) Equity risk premiums in Asia range from 3.5 per cent to 8.7 per cent (2015: from 3.5 per cent to 8.6 per cent).
- (d) The mean equity return assumptions for the most significant equity holdings of the Asia operations are:

	31 Dec 2016 %	31 Dec 2015 %
Hong Kong	6.5	6.3
Malaysia	10.2	10.2
Singapore	8.5	8.6

(ii) US operations

The risk-free rates of return for US operations are defined as 10-year treasury bond yield at the end of the year.

	31 Dec 2016 %	31 Dec 2015 %
Assumed new business spread margins:*		
Fixed annuity business:†		
January to June issues	1.25	1.25
July to December issues	1.25	1.50
Fixed index annuity business:		
January to June issues	1.50	1.50
July to December issues	1.50	1.75
Institutional business	0.50	0.70
Allowance for long-term defaults included in projected spread ^{note 14(a)(viii)}	0.21	0.24
Risk discount rate:		
Variable annuity:		
Risk discount rate	6.9	6.8
Additional allowance for credit risk included in risk discount rate ^{note 14(a)(viii)}	0.2	0.2
Non-variable annuity:		
Risk discount rate	4.1	3.9
Additional allowance for credit risk included in risk discount rate ^{note 14(a)(viii)}	1.0	1.0
Weighted average total:		
New business	6.8	6.7
In-force business	6.5	6.2
US 10-year treasury bond yield	2.5	2.3
Pre-tax expected long-term nominal rate of return for US equities	6.5	6.3
Expected long-term rate of inflation	3.0	2.8
Equity risk premium	4.0	4.0
S&P equity return volatility ^{note (v)}	18.0	18.0

* Including the proportion of variable annuity business invested in the general account and fixed index annuity business, the assumed spread margin grades up linearly by 25 basis points to a long-term assumption over five years.

† Including the proportion of variable annuity business invested in the general account.

Notes on the EEV basis results

Continued

15 Assumptions continued

(iii) UK insurance operations

Effective from 1 January 2016, following the implementation of Solvency II, the EEV risk-free rate is based on the full term structure of interest rates, ie a yield curve, which is used to determine the embedded value at the end of the reporting period. For 2016, these yield curves are used to derive pre-tax expected long-term nominal rates of investment return and risk discount rates. For the purpose of determining the unwind of discount in the analysis of operating profit, these yield curves are used to derive a single implied risk discount rate, as explained in note 14(a)(viii).

For 2015, risk-free rates of return and risk discount rates were based on a flat 15-year gilt yield at the end of the year.

The key economic assumptions are shown below for both years, for 2016 the single implied risk discount rate is shown, along with the 15-year nominal rate of return based on the yield curve. For 2015 the long-term nominal rates of return are shown.

	31 Dec 2016 %	31 Dec 2015 %
Shareholder-backed annuity business: ^{note (a)}		
Risk discount rate:		
New business	3.9	5.7
In-force business	4.5	7.4
Pre-tax expected 15-year/long-term nominal rates of investment return: ^{note (b)}		
New business	3.0	3.5
In-force business	2.8	3.5
With-profits and other business:		
Risk discount rate:*		
New business	4.7	5.6
In-force business	4.9	5.7
Pre-tax expected 15-year/long-term nominal rates of investment return: ^{note (b)}		
Overseas equities	6.2 to 9.4	6.3 to 9.4
Property	4.5	5.2
15-year gilt yield	1.7	2.4
Corporate bonds	3.5	4.1
Expected 15-year/long-term rate of inflation	3.6	3.1
Equity risk premium	4.0	4.0

* The risk discount rates for with-profits and other business shown above represents a weighted average total of the rates applied to determine the present value of future cash flows, including a portion of future with-profits business shareholders' transfers recognised in net worth.

Notes

- (a) For shareholder-backed annuity business, the movements in the pre-tax long-term nominal rates of return and risk discount rates for new and in-force businesses reflect the effect of changes in asset yields (based on average yields for new business).
- (b) The table below shows the pattern of the UK risk-free Solvency II spot yield curve at the end of 31 December 2016:

	31 Dec 2016				
Year	1	5	10	15	20
Risk-free rate (%)	0.4	0.7	1.1	1.3	1.3

Stochastic assumptions

Details are given below of the key characteristics of the models used to determine the time value of the financial options and guarantees as referred to in note 14(a)(iv).

(iv) Asia operations

- The stochastic cost of guarantees is primarily of significance for the Hong Kong, Malaysia, Singapore and Taiwan operations;
- The principal asset classes are government and corporate bonds;
- The asset return models are similar to the models as described for UK insurance operations below; and
- The volatility of equity returns ranges from 18 per cent to 35 per cent, and the volatility of government bond yields ranges from 0.9 per cent to 2.3 per cent for both years.

(v) US operations (Jackson)

- Interest rates and equity returns are projected using a log-normal generator reflecting historical market data;
- Corporate bond returns are based on treasury yields plus a spread that reflects current market conditions; and
- The volatility of equity returns ranges from 18 per cent to 27 per cent for both years, and the standard deviation of interest rates ranges from 2.3 per cent to 2.6 per cent (2015: from 2.2 per cent to 2.5 per cent).

(vi) UK insurance operations

- Interest rates are projected using a stochastic interest rate model calibrated to the current market yields;
- Equity returns are assumed to follow a log-normal distribution;
- The corporate bond return is calculated based on a risk-free return plus a mean-reverting spread;
- Property returns are also modelled on a risk-free return plus a risk premium with a stochastic process reflecting total property returns; and
- The standard deviation of equities and property ranges from 15 per cent to 20 per cent for both years.

Operating assumptions**Best estimate assumptions**

Best estimate assumptions are used for the cash flow projections, where best estimate is defined as the mean of the distribution of future possible outcomes. The assumptions are reviewed actively and changes are made when evidence exists that material changes in future experience are reasonably certain.

Assumptions required in the calculation of the value of options and guarantees, for example relating to volatilities and correlations, or dynamic algorithms linking liabilities to assets, have been set equal to the best estimates and, wherever material and practical, reflect any dynamic relationships between the assumptions and the stochastic variables.

Demographic assumptions

Persistency, mortality and morbidity assumptions are based on an analysis of recent experience, but also reflect expected future experience. Where relevant, when calculating the time value of financial options and guarantees, policyholder withdrawal rates vary in line with the emerging investment conditions according to management's expectations.

Expense assumptions

Expense levels, including those of service companies that support the Group's long-term business operations, are based on internal expense analysis investigations and are appropriately allocated to acquisition of new business and renewal of in-force business. Exceptional expenses are identified and reported separately. For mature business, it is Prudential's policy not to take credit for future cost reduction programmes until the savings have been delivered. For businesses which are currently sub-scale (China, Malaysia Takaful and Taiwan), expense overruns are reported where these are expected to be short-lived.

For Asia operations, the expenses comprise costs borne directly and recharged costs from the Asia regional head office, that are attributable to covered business. The assumed future expenses for these operations also include projections of these future recharges. Development expenses are charged as incurred.

Corporate expenditure, which is included in other income and expenditure, comprises:

- Expenditure for Group head office, to the extent not allocated to the PAC with-profits funds, together with Solvency II implementation and restructuring costs, which are charged to the EEV basis results as incurred; and
- Expenditure of the Asia regional head office that is not allocated to the covered business or asset management operations which is charged as incurred. These costs are primarily for corporate-related activities and are included within corporate expenditure.

Tax rates

The assumed long-term effective tax rates for operations reflect the incidence of taxable profits and losses in the projected cash flows as explained in note 14(a)(x).

The local standard corporate tax rates applicable for the most significant operations for 2016 and 2015 are as follows:

Standard corporate tax rates	%
Asia operations:	
Hong Kong	16.5 per cent on 5 per cent of premium income
Indonesia	25.0
Malaysia	2015: 25.0; from 2016: 24.0
Singapore	17.0
US operations	35.0
UK operations*	2015: 20.0; from 2017: 19.0; from 2020: 17.0

* The Finance Bill included a reduction in the UK corporate tax rate from 18 per cent to 17 per cent effective from 1 April 2020. The impact of this reduction on the UK in-force business is shown in note 5(iv)(b).

Notes on the EEV basis results

Continued

16 New business premiums and contributions ^{note (i)}

	Single premiums		Regular premiums		Annual premium and contribution equivalents (APE) note 14(a)(ii)		Present value of new business premiums (PVNBP)* note 14(a)(ii)	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
Group insurance operations								
Asia [†]	2,397	1,938	3,359	2,518	3,599	2,712	19,271	14,428
US	15,608	17,286	–	–	1,561	1,729	15,608	17,286
UK [‡]	9,836	6,955	177	179	1,160	874	10,513	7,561
Group total excluding UK bulk annuities [†]	27,841	26,179	3,536	2,697	6,320	5,315	45,392	39,275
UK bulk annuities [‡]	–	1,508	–	–	–	151	–	1,508
Group total[†]	27,841	27,687	3,536	2,697	6,320	5,466	45,392	40,783
Asia insurance operations								
Cambodia	–	–	14	8	14	8	66	38
Hong Kong	1,140	546	1,798	1,158	1,912	1,213	10,930	7,007
Indonesia	236	230	255	303	279	326	1,048	1,224
Malaysia	110	100	233	201	244	211	1,352	1,208
Philippines	91	146	61	44	70	59	278	287
Singapore	523	454	299	264	351	309	2,627	2,230
Thailand	80	69	81	88	89	95	404	422
Vietnam	6	6	115	82	116	83	519	343
SE Asia operations including								
Hong Kong	2,186	1,551	2,856	2,148	3,075	2,304	17,224	12,759
China ^{note (ii)}	124	308	187	111	199	142	880	739
Taiwan	36	45	146	127	150	131	499	442
India ^{note (iii)}	51	34	170	132	175	135	668	488
Total Asia insurance operations[†]	2,397	1,938	3,359	2,518	3,599	2,712	19,271	14,428
US insurance operations								
Variable annuities	10,653	11,977	–	–	1,065	1,198	10,653	11,977
Elite Access (variable annuity)	2,056	3,144	–	–	206	314	2,056	3,144
Fixed annuities	555	477	–	–	55	48	555	477
Fixed index annuities	508	458	–	–	51	46	508	458
Wholesale	1,836	1,230	–	–	184	123	1,836	1,230
Total US insurance operations	15,608	17,286	–	–	1,561	1,729	15,608	17,286

	Single premiums		Regular premiums		Annual premium and contribution equivalents (APE) note 14(a)(ii)		Present value of new business premiums (PVNBP)* note 14(a)(ii)	
	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m	2016 £m	2015 £m
UK and Europe insurance operations								
Individual annuities	546	565	–	–	55	57	546	565
Bonds	3,834	3,327	–	–	384	333	3,835	3,328
Corporate pensions	110	175	121	135	132	152	479	600
Individual pensions	2,532	1,185	35	32	289	150	2,681	1,295
Income drawdown	1,649	1,024	–	–	165	102	1,649	1,024
Other products	1,165	679	21	12	135	80	1,323	749
Total retail	9,836	6,955	177	179	1,160	874	10,513	7,561
Wholesale	–	1,508	–	–	–	151	–	1,508
Total UK and Europe insurance operations	9,836	8,463	177	179	1,160	1,025	10,513	9,069
Group total†	27,841	27,687	3,536	2,697	6,320	5,466	45,392	40,783
Group total excluding UK bulk annuities‡	27,841	26,179	3,536	2,697	6,320	5,315	45,392	39,275

* For 2016, the risk discount rates used to calculate PVNBP for UK insurance operations are on a basis that reflects the Solvency II regime effective on 1 January 2016 (see note 2 for details). The 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for the year.

† The new business premiums and contributions exclude the results attributable to the held for sale Korea life business (see note 17 for details). The 2015 comparatives have been similarly adjusted.

‡ Following Prudential's withdrawal from the UK bulk annuity market, the 2015 comparative results for UK bulk annuities new business have been presented separately.

Notes

- (i) The tables shown above are provided as an indicative volume measure of transactions undertaken in the reporting period that have the potential to generate profits for shareholders. The amounts shown are not, and not intended to be, reflective of premium income recorded in the IFRS income statement. A reconciliation of APE and gross earned premiums on an IFRS basis is provided in Note II(i) within the unaudited financial information.
- (ii) New business in China is included at Prudential's 50 per cent interest in the China life operation.
- (iii) New business in India is included at Prudential's 26 per cent interest in the India life operation.

Notes on the EEV basis results

Continued

17 Agreement to sell Korea life business

In November 2016, the Group reached an agreement to sell the life insurance subsidiary in Korea, PCA Life Insurance, to Mirae Asset Life Insurance for KRW 170 billion (£114 million at 31 December 2016 closing exchange rate). Completion of the transaction is subject to regulatory approval.

Consistent with the classification of the business as held for sale for IFRS reporting, the EEV carrying value has been set to £105 million at 31 December 2016, representing the estimated proceeds, net of £9 million of related expenses.

In order to facilitate comparisons of the Group's retained businesses, the EEV basis operating profit excludes the contribution from the Korea life business. The 2015 comparative results have been similarly adjusted. For 2016, the post-tax result for the year of £5 million, including short-term fluctuations in investment returns and the effect of changes in economic assumptions, together with the £(415) million adjustment to the carrying value have given rise to an aggregate loss of £(410) million. The 2015 amount of £39 million represents the previously reported profit after tax for this business.

The tables below show the results of the held for sale Korea life business which were included in the Group's results for half year 2016 and full year 2015.

EEV post-tax results

	Half year 2016 £m	Full year 2015 £m
Operating profit		
New business contribution	3	8
Profit from business in force	3	33
	6	41
Non-operating loss	(17)	(2)
Total profit after tax	(11)	39
Underlying free surplus generated		
New business contribution	(9)	(27)
Profit from business in force	3	34
	(6)	7
Non-operating profit	17	8
Total free surplus generated	11	15

New business premiums and contributions

	Single premiums £m	Regular premiums £m	Annual premium and contribution equivalents (APE) £m	Present value of new business premiums (PVNBP) £m
Half year 2016	42	46	50	276
Full year 2015	182	123	141	780