

# European Embedded Value (EEV) basis results

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### Description of EEV basis reporting

In broad terms, IFRS profits for long-term business reflect the aggregate of results on a traditional accounting basis. By contrast, embedded value is a way of reporting the value of the life insurance business.

The EEV basis results have been prepared in accordance with the amended European Embedded Value Principles dated April 2016, prepared by the CFO Forum of major European insurers. The half year 2016 results for UK insurance operations have been prepared to reflect the Solvency II regime. The half year and full year 2015 results for UK insurance operations were prepared reflecting the Solvency I basis, being the regime applicable for those periods. There is no change to the basis of preparation for Asia and US operations. The Principles provide consistent definitions, a framework for setting actuarial assumptions, and an approach to the underlying methodology and disclosures.

Results prepared under the EEV Principles capture the discounted value of future profits expected to arise from the current book of long-term business. The results are prepared by projecting cash flows, by product, using best estimate assumptions for all relevant factors. Furthermore, in determining these expected profits, full allowance is made for the risks attached to their emergence and the associated cost of capital, taking into account recent experience in assessing likely future persistency, mortality, morbidity and expenses. Further details are explained in notes 13 and 14.



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### Post-tax operating profit based on longer-term investment returns

#### Results analysis by business area

	Note	2016 £m		2015 £m	
		Half year	Half year note (iii)	Half year note (iii)	Full year note (iii)
<b>Asia operations</b>					
New business	4	824	664		1,490
Business in force	5	391	408		831
Long-term business		1,215	1,072		2,321
Eastspring Investments		53	50		101
<b>Total</b>		<b>1,268</b>	<b>1,122</b>		<b>2,422</b>
<b>US operations</b>					
New business	4	311	371		809
Business in force	5	383	441		999
Long-term business		694	812		1,808
Broker-dealer and asset management		(8)	8		7
<b>Total</b>		<b>686</b>	<b>820</b>		<b>1,815</b>
<b>UK operations</b> <sup>note (iv)</sup>					
New business: <sup>note (v)</sup>					
Excluding UK bulk annuities		125	80		201
UK bulk annuities		–	75		117
Business in force	4	125	155		318
	5	259	256		545
Long-term business		384	411		863
General insurance commission		15	14		22
<b>Total UK insurance operations</b>		<b>399</b>	<b>425</b>		<b>885</b>
M&G		181	203		358
Prudential Capital		11	6		18
<b>Total</b>		<b>591</b>	<b>634</b>		<b>1,261</b>
Other income and expenditure <sup>note (i)</sup>		(302)	(275)		(566)
Solvency II and restructuring costs <sup>note (ii)</sup>		(17)	(23)		(51)
Interest received from tax settlement		37	–		–
<b>Operating profit based on longer-term investment returns</b> <sup>note (iv)</sup>		<b>2,263</b>	<b>2,278</b>		<b>4,881</b>
<b>Analysed as profit (loss) from:</b>					
New business: <sup>note (v)</sup>					
Excluding UK bulk annuities		1,260	1,115		2,500
UK bulk annuities		–	75		117
Business in force	4	1,260	1,190		2,617
	5	1,033	1,105		2,375
Long-term business		2,293	2,295		4,992
Asset management and general insurance commission		252	281		506
Other results		(282)	(298)		(617)
<b>Total</b>		<b>2,263</b>	<b>2,278</b>		<b>4,881</b>

#### Notes

- (i) EEV basis other income and expenditure represents the post-tax IFRS basis result less the unwind of expected margins on the internal management of the assets of the covered business (as explained in note 13(a)(vii)) and an adjustment for the shareholders' share of the pension costs attributable to the with-profits business.
- (ii) Solvency II and restructuring costs comprise the net of tax charge recognised on an IFRS basis and the additional amount recognised on the EEV basis for the shareholders' share incurred by the PAC with-profits fund.
- (iii) The comparative results have been prepared using previously reported average exchange rates for the period.
- (iv) The EEV basis results have been prepared in accordance with the amended European Embedded Value Principles dated April 2016, prepared by the CFO Forum of major European insurers. The half year 2016 results for UK insurance operations have been prepared to reflect the Solvency II regime. The half year and full year 2015 results for UK insurance operations were prepared reflecting the Solvency I basis being the regime applicable for those periods. There is no change to the basis of preparation for Asia and US operations.
- (v) Following Prudential's withdrawal from the UK bulk annuity market, the 2015 comparative results for UK bulk annuities new business have been presented separately.

## European Embedded Value (EEV) basis results continued

### Post-tax summarised consolidated income statement

	Note	2016 £m		2015 £m	
		Half year	Half year	Half year	Full year
Asia operations		1,268	1,122		2,422
US operations		686	820		1,815
UK operations*		591	634		1,261
Other income and expenditure		(302)	(275)		(566)
Solvency II and restructuring costs		(17)	(23)		(51)
Interest received from tax settlement		37	–		–
<b>Operating profit based on longer-term investment returns</b>		<b>2,263</b>	<b>2,278</b>		<b>4,881</b>
Short-term fluctuations in investment returns	6	489	(367)		(1,208)
Effect of changes in economic assumptions	7	(1,345)	80		57
Mark to market value movements on core borrowings		(13)	124		221
Total non-operating loss		(869)	(163)		(930)
<b>Profit for the period attributable to equity holders of the Company</b>		<b>1,394</b>	<b>2,115</b>		<b>3,951</b>

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

### Basic earnings per share

	2016		2015	
	Half year	Half year	Half year	Full year
Based on post-tax operating profit including longer-term investment returns (in pence)*	88.5p	89.3p		191.2p
Based on post-tax profit attributable to equity holders of the Company (in pence)*	54.5p	82.9p		154.8p
Average number of shares (millions)	2,558	2,552		2,553

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

### Movement in shareholders' equity

	Note	2016 £m		2015 £m	
		Half year	Half year	Half year	Full year
Profit for the period attributable to equity shareholders		1,394	2,115		3,951
Items taken directly to equity:					
Exchange movements on foreign operations and net investment hedges		2,663	(554)		244
Dividends		(935)	(659)		(974)
Mark to market value movements on Jackson assets backing surplus and required capital		138	(8)		(76)
Other reserve movements		(165)	19		53
Net increase in shareholders' equity*	9	3,095	913		3,198
Shareholders' equity at beginning of period					
As previously reported	9	32,359	29,161		29,161
Effect of implementation of Solvency II on 1 January 2016*	2	(473)	–		–
		31,886	29,161		29,161
<b>Shareholders' equity at end of period</b>	9	<b>34,981</b>	<b>30,074</b>		<b>32,359</b>

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

	30 Jun 2016 £m			30 Jun 2015 £m			31 Dec 2015 £m		
	Long-term business operations note 9	Asset management and other operations	Total	Long-term business operations	Asset management and other operations	Total	Long-term business operations	Asset management and other operations	Total
<b>Comprising:</b>									
Asia operations	16,578	352	16,930	12,838	284	13,122	13,876	306	14,182
US operations	10,150	201	10,351	8,457	165	8,622	9,487	182	9,669
UK insurance operations*	10,075	37	10,112	8,708	33	8,741	9,647	22	9,669
M&G	–	1,838	1,838	–	1,697	1,697	–	1,774	1,774
Prudential Capital	–	31	31	–	26	26	–	70	70
Other operations	–	(4,281)	(4,281)	–	(2,134)	(2,134)	–	(3,005)	(3,005)
<b>Shareholders' equity at end of period</b>	<b>36,803</b>	<b>(1,822)</b>	<b>34,981</b>	<b>30,003</b>	<b>71</b>	<b>30,074</b>	<b>33,010</b>	<b>(651)</b>	<b>32,359</b>
<b>Representing:</b>									
Net assets excluding acquired goodwill and holding company net borrowings	36,545	270	36,815	29,772	1,635	31,407	32,777	866	33,643
Acquired goodwill	258	1,230	1,488	231	1,230	1,461	233	1,230	1,463
Holding company net borrowings at market value <sup>note 8</sup>	–	(3,322)	(3,322)	–	(2,794)	(2,794)	–	(2,747)	(2,747)
	<b>36,803</b>	<b>(1,822)</b>	<b>34,981</b>	<b>30,003</b>	<b>71</b>	<b>30,074</b>	<b>33,010</b>	<b>(651)</b>	<b>32,359</b>

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

## European Embedded Value (EEV) basis results continued

### Summary statement of financial position

	Note	2016 £m	2015 £m	
		30 Jun	30 Jun	31 Dec
<b>Total assets less liabilities, before deduction for insurance funds</b>		<b>381,242</b>	331,233	340,666
Less insurance funds:*				
Policyholder liabilities (net of reinsurers' share) and unallocated surplus of with-profits funds		(366,637)	(319,129)	(327,711)
Less shareholders' accrued interest in the long-term business†	9	20,376	17,970	19,404
		<b>(346,261)</b>	<b>(301,159)</b>	<b>(308,307)</b>
<b>Total net assets</b>	9	<b>34,981</b>	30,074	32,359
Share capital		128	128	128
Share premium		1,921	1,910	1,915
IFRS basis shareholders' reserves		12,556	10,066	10,912
Total IFRS basis shareholders' equity	9	14,605	12,104	12,955
Additional EEV basis retained profit†	9	20,376	17,970	19,404
<b>Total EEV basis shareholders' equity (excluding non-controlling interests)</b>	9	<b>34,981</b>	30,074	32,359

\* Including liabilities in respect of insurance products classified as investment contracts under IFRS 4.

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

### Net asset value per share

	2016	2015	
	30 Jun	30 Jun	31 Dec
Based on EEV basis shareholders' equity of £34,981 million† (half year 2015: £30,074 million, full year 2015: £32,359 million) (in pence)	1,356p	1,170p	1,258p
Number of issued shares at period end (millions)	2,579	2,571	2,572
<b>Annualised return on embedded value*</b>	<b>14%</b>	16%	17%

\* Annualised return on embedded value is based on EEV post-tax operating profit, as a percentage of opening EEV basis shareholders' equity. Half year profits are annualised by multiplying by two.

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

## 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 and accounting presentation. The half year 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 half year and full year 2015 comparative results for UK insurance operations were prepared reflecting the Solvency I basis, being the regime applicable for those periods. 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. The EEV basis results of half year 2016 and half year 2015 are unaudited. The full year 2015 results have been derived from the EEV basis results supplement to the Company's statutory accounts for 2015. The supplement included an unqualified audit report from the auditors.

A detailed description of the EEV methodology and accounting presentation is provided in note 13.

### 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 will impact 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 at 1 January 2016 is shown below:

Total EEV basis shareholders' equity	£m
As reported at 31 December 2015 <sup>note 9</sup>	32,359
Opening adjustment at 1 January 2016 for long-term business operations	
Effect of implementation of Solvency II on net worth <sup>note (a)</sup>	2,760
Effect of implementation of Solvency II on net value of in-force business (VIF) <sup>note (b)</sup>	(3,233)
	(473)
<b>Group total shareholders' equity as at 1 January 2016<sup>note (c)</sup></b>	<b>31,886</b>

#### 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 incorporates 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 leads 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 is 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 on the half year 2016 for UK insurance operations is estimated to have reduced operating profit by £(17) 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 half year 2016 average exchange rates.

#### Annual premium and contribution equivalents (APE)<sup>note15</sup>

	Note	2016 £m		2015 £m		% change	
		Half year	AER Half year	CER Half year	AER	CER	
Asia operations		1,655	1,366	1,404	21%	18%	
US operations		782	857	912	(9)%	(14)%	
UK retail operations <sup>†</sup>		593	393	393	51%	51%	
<b>Group total excluding UK bulk annuities<sup>†</sup></b>		<b>3,030</b>	<b>2,616</b>	<b>2,709</b>	<b>16%</b>	<b>12%</b>	
UK bulk annuities <sup>†</sup>		–	117	117	(100)%	(100)%	
<b>Group total</b>	4	<b>3,030</b>	<b>2,733</b>	<b>2,826</b>	<b>11%</b>	<b>7%</b>	

#### Post-tax operating profit

	Note	2016 £m		2015 £m		% change	
		Half year	AER Half year	CER Half year	AER	CER	
<b>Asia operations</b>							
New business	4	824	664	688	24%	20%	
Business in force	5	391	408	418	(4)%	(6)%	
Long-term business		1,215	1,072	1,106	13%	10%	
Eastspring Investments		53	50	52	6%	2%	
<b>Total</b>		<b>1,268</b>	<b>1,122</b>	<b>1,158</b>	<b>13%</b>	<b>9%</b>	
<b>US operations</b>							
New business	4	311	371	394	(16)%	(21)%	
Business in force	5	383	441	469	(13)%	(18)%	
Long-term business		694	812	863	(15)%	(20)%	
Broker-dealer and asset management		(8)	8	8	(200)%	(200)%	
<b>Total</b>		<b>686</b>	<b>820</b>	<b>871</b>	<b>(16)%</b>	<b>(21)%</b>	
<b>UK operations</b>							
New business <sup>†</sup>							
UK retail operations		125	80	80	56%	56%	
UK bulk annuities		–	75	75	(100)%	(100)%	
	4	125	155	155	(19)%	(19)%	
Business in force	5	259	256	256	1%	1%	
Long-term business		384	411	411	(7)%	(7)%	
General insurance commission		15	14	14	7%	7%	
Total UK insurance operations*		399	425	425	(6)%	(6)%	
M&G		181	203	203	(11)%	(11)%	
Prudential Capital		11	6	6	83%	83%	
<b>Total*</b>		<b>591</b>	<b>634</b>	<b>634</b>	<b>(7)%</b>	<b>(7)%</b>	
Other income and expenditure		(302)	(275)	(275)	(10)%	(10)%	
Solvency II and restructuring costs		(17)	(23)	(23)	26%	26%	
Interest received from tax settlement		37	–	–	100%	100%	
<b>Operating profit based on longer-term investment returns*</b>		<b>2,263</b>	<b>2,278</b>	<b>2,365</b>	<b>(1)%</b>	<b>(4)%</b>	



	Note	2016 £m		2015 £m		% change	
		Half year	AER Half year	CER Half year	AER	CER	
<b>Analysed as profit (loss) from:</b>							
New business: *†							
Life operations excluding UK bulk annuities		1,260	1,115	1,162	13%	8%	
UK bulk annuities		–	75	75	(100)%	(100)%	
	4	1,260	1,190	1,237	6%	2%	
Business in force*	5	1,033	1,105	1,143	(7)%	(10)%	
Total long-term business*		2,293	2,295	2,380	(0)%	(4)%	
Asset management and general insurance commission		252	281	283	(10)%	(11)%	
Other results		(282)	(298)	(298)	5%	5%	
<b>Operating profit based on longer-term investment returns*</b>		<b>2,263</b>	<b>2,278</b>	<b>2,365</b>	<b>(1)%</b>	<b>(4)%</b>	

### Post-tax profit

	Note	2016 £m		2015 £m		% change	
		Half year	AER Half year	CER Half year	AER	CER	
Operating profit based on longer-term investment returns*		2,263	2,278	2,365	(1)%	(4)%	
Short-term fluctuations in investment returns	6	489	(367)	(389)	233%	226%	
Effect of changes in economic assumptions	7	(1,345)	80	88	(1,781)%	(1,628)%	
Mark to market value movements on core borrowings		(13)	124	124	(110)%	(110)%	
Total non-operating profit		(869)	(163)	(177)	(433)%	(391)%	
<b>Profit for the period attributable to shareholders*</b>		<b>1,394</b>	<b>2,115</b>	<b>2,188</b>	<b>(34)%</b>	<b>(36)%</b>	

### Basic earnings per share (in pence)

	2016		2015		% change	
	Half year	AER Half year	CER Half year	AER	CER	
Based on post-tax operating profit including longer-term investment returns*	88.5p	89.3p	92.7p	(1)%	(5)%	
Based on post-tax profit*	54.5p	82.9p	85.7p	(34)%	(36)%	

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

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

## 4 Analysis of new business contribution

## (i) Group summary

	Half year 2016				
	Annual premium and contribution equivalents (APE) £m note 15	Present value of new business premiums (PVNBP) £m note 15	New business contribution £m note	New business margin	
				APE %	PVNBP %
Asia operations <sup>note(ii)</sup>	1,655	8,955	824	50	9.2
US operations	782	7,816	311	40	4.0
UK insurance operations*	593	5,267	125	21	2.4
<b>Total</b>	<b>3,030</b>	<b>22,038</b>	<b>1,260</b>	<b>42</b>	<b>5.7</b>

  

	Half year 2015				
	Annual premium and contribution equivalents (APE) £m note 15	Present value of new business premiums (PVNBP) £m note 15	New business contribution £m note	New business margin	
				APE %	PVNBP %
Asia operations <sup>note(ii)</sup>	1,366	7,340	664	49	9.0
US operations	857	8,574	371	43	4.3
UK retail operations**†	393	3,355	80	20	2.4
Total excluding UK bulk annuities	2,616	19,269	1,115	43	5.8
UK bulk annuities	117	1,169	75	64	6.4
<b>Total</b>	<b>2,733</b>	<b>20,438</b>	<b>1,190</b>	<b>44</b>	<b>5.8</b>

  

	Full year 2015				
	Annual premium and contribution equivalents (APE) £m note 15	Present value of new business premiums (PVNBP) £m note 15	New business contribution £m	New business margin	
				APE %	PVNBP %
Asia operations <sup>note(ii)</sup>	2,853	15,208	1,490	52	9.8
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	5,456	40,055	2,500	46	6.2
UK bulk annuities	151	1,508	117	77	7.8
<b>Total</b>	<b>5,607</b>	<b>41,563</b>	<b>2,617</b>	<b>47</b>	<b>6.3</b>

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

† 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 £145 million from £1,115 million for half year 2015 (excluding the contribution from UK bulk annuities) to £1,260 million for half year 2016 comprises an increase on a CER basis of £98 million and an increase of £47 million for foreign exchange effects. The increase of £98 million on the CER basis comprises a contribution of £138 million for higher retail sales volumes in half year 2016, an £(88) million effect of lower long-term interest rates, generated by the active basis of setting economic assumptions (analysed as Asia £(46) million, US £(38) million and UK £(4) million), and a £48 million impact of pricing, product and other actions.

**(ii) Asia operations - new business contribution by territory**

	2016 £m	2015 £m		
	Half year	AER Half year	CER Half year	AER Full year
China	22	20	20	30
Hong Kong	539	322	342	835
India	10	9	9	18
Indonesia	87	127	131	229
Korea	3	4	4	8
Taiwan	9	13	13	28
Other	154	169	169	342
<b>Total Asia operations</b>	<b>824</b>	<b>664</b>	<b>688</b>	<b>1,490</b>

**5 Operating profit from business in force****(i) Group summary**

	Half year 2016 £m			
	Asia operations note (ii)	US operations note (iii)	UK insurance operations* note (iv)	Total* note
Unwind of discount and other expected returns	384	209	205	798
Effect of changes in operating assumptions	2	–	–	2
Experience variances and other items	5	174	54	233
<b>Total</b>	<b>391</b>	<b>383</b>	<b>259</b>	<b>1,033</b>

	Half year 2015 £m			
	Asia operations note (ii)	US operations note (iii)	UK insurance operations note (iv)	Total note
Unwind of discount and other expected returns	411	236	245	892
Effect of changes in operating assumptions	1	–	–	1
Experience variances and other items	(4)	205	11	212
<b>Total</b>	<b>408</b>	<b>441</b>	<b>256</b>	<b>1,105</b>

	Full year 2015 £m			
	Asia operations note (ii)	US operations note (iii)	UK insurance operations note (iv)	Total note
Unwind of discount and other expected returns	749	472	488	1,709
Effect of changes in operating assumptions	12	115	55	182
Experience variances and other items	70	412	2	484
<b>Total</b>	<b>831</b>	<b>999</b>	<b>545</b>	<b>2,375</b>

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

**Note**

The movement in operating profit from business in force of £(72) million from £1,105 million for half year 2015 to £1,033 million for half year 2016 comprises:

	£m
Movement in unwind of discount and other expected returns:	
Effects of changes in:	
Interest rates	(161)
Foreign exchange	23
Growth in opening value and other items	44
	(94)
Movement in effect of changes in operating assumptions, experience variances and other items (including foreign exchange of £15 million)	22
<b>Net movement in operating profit from business in force</b>	<b>(72)</b>

5 Operating profit from business in force continued

(ii) Asia operations

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Unwind of discount and other expected returns <sup>note(a)</sup>	384	411	749	
Effect of changes in operating assumptions:				
Mortality and morbidity	–	–	63	
Persistency and withdrawals	3	4	(46)	
Expense	–	(4)	(1)	
Other	(1)	1	(4)	
	2	1	12	
Experience variances and other items:				
Mortality and morbidity <sup>note(b)</sup>	28	30	58	
Persistency and withdrawals <sup>note(c)</sup>	(24)	(31)	20	
Expense <sup>note(d)</sup>	(8)	(12)	(32)	
Other	9	9	24	
	5	(4)	70	
<b>Total Asia operations</b>	<b>391</b>	<b>408</b>	<b>831</b>	

Notes

- (a) The decrease in unwind of discount and other expected returns of £(27) million from £411 million for half year 2015 to £384 million for half year 2016 comprises a £(75) million decrease from the decline in long-term interest rates across most territories, partially offset by a positive £8 million foreign exchange effect and a positive £40 million effect for the growth in the opening in-force value and other items.
- (b) The positive mortality and morbidity experience variance in half year 2016 of £28 million (half year 2015: £30 million; full year 2015: £58 million) mainly reflects better than expected experience in a number of territories, particularly Hong Kong.
- (c) The negative £(24) million for persistency and withdrawals experience in half year 2016 comprises positive and negative contributions from various operations, with positive persistency experience on health and protection products which was more than offset by negative experience on unit-linked products.
- (d) The expense experience variance in half year 2016 of negative £(8) million (half year 2015: £(12) million; full year 2015: £(32) million) is driven by operations which are currently sub-scale (China, Malaysia Takaful and Taiwan) and from short-term overruns in India.

(iii) US operations

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Unwind of discount and other expected returns <sup>note(a)</sup>	209	236	472	
Effect of changes in operating assumptions:				
Persistency	–	–	139	
Other	–	–	(24)	
	–	–	115	
Experience variances and other items:				
Spread experience variance <sup>note(b)</sup>	60	70	149	
Amortisation of interest-related realised gains and losses <sup>note(c)</sup>	39	39	70	
Other <sup>note(d)</sup>	75	96	193	
	174	205	412	
<b>Total US operations</b>	<b>383</b>	<b>441</b>	<b>999</b>	

Notes

- (a) The decrease in unwind of discount and other expected returns of £(27) million from £236 million for half year 2015 to £209 million for half year 2016 comprises a £(53) million impact of the 90 basis points decrease in US 10-year treasury rates since 30 June 2015, partially offset by a positive £15 million foreign currency translation effect and a positive £11 million effect for the underlying growth in the in-force book and other items.
- (b) The spread assumption for Jackson is determined on a longer-term basis, net of provision for defaults (see note 14 (ii)). The spread experience variance in half year 2016 of £60 million (half year 2015: £70 million; full year 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 period reflects the effects of declining yields in the portfolio caused by the prolonged low interest rate environment.
- (c) 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 year when the bonds would have otherwise matured to better reflect the long-term returns included in operating profits.
- (d) Other experience variances of £75 million in half year 2016 (half year 2015: £96 million; full year 2015: £193 million) include the effects of positive persistency experience and other variances. The full year 2015 result also benefited from higher levels of tax relief from prior period adjustments.

**(iv) UK insurance operations**

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Unwind of discount and other expected returns <sup>note(a)</sup>	205	245	245	488
Reduction in corporate tax rate <sup>note(b)</sup>	–	–	–	55
Other items <sup>note(c)</sup>	54	11	11	2
<b>Total UK insurance operations*</b>	<b>259</b>	<b>256</b>	<b>256</b>	<b>545</b>

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

**Notes**

- (a) The decrease in unwind of discount and expected returns of £(40) million from half year 2015 of £245 million to £205 million for half year 2016 comprises a £(33) million effect driven by the 100 basis points decrease in 15-year gilt yields since 30 June 2015, a positive £7 million effect for the underlying growth in the in-force book and other items and a negative £(14) million representing the net effect on the UK unwind of adopting the Solvency II regime.
- (b) The full year 2015 credit of £55 million for the reduction in UK corporate tax rate reflected the beneficial effect of applying lower corporation tax rates (see note 14) to future life profits from in-force business in the UK.
- (c) Other items comprise the following:

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Longevity reinsurance	(10)	(46)	(46)	(134)
Impact of specific management actions to improve solvency position <sup>note(d)</sup>	41	–	–	75
Other items <sup>note(e)</sup>	23	57	57	61
	<b>54</b>	<b>11</b>	<b>11</b>	<b>2</b>

- (d) The £41 million (half year 2015: £nil; full year 2015: £75 million) benefit arises from the specific management actions to improve solvency, including the effect of repositioning the fixed income asset portfolio.
- (e) The half year 2016 credit of £23 million (half year 2015: £57 million; full year 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 period arise as follows:

**(i) Group summary**

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Asia operations <sup>note(ii)</sup>	383	(79)	(79)	(206)
US operations <sup>note(iii)</sup>	(237)	(271)	(271)	(753)
UK insurance operations <sup>note(iv)</sup>	506	(32)	(32)	(194)
Other operations <sup>note(v)</sup>	(163)	15	15	(55)
<b>Total</b>	<b>489</b>	<b>(367)</b>	<b>(367)</b>	<b>(1,208)</b>

**(ii) Asia operations**

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

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Hong Kong	237	(24)	(24)	(144)
Indonesia	22	(27)	(27)	(53)
Singapore	26	(46)	(46)	(104)
Taiwan	47	(5)	(5)	44
Other	51	23	23	51
<b>Total Asia operations<sup>note</sup></b>	<b>383</b>	<b>(79)</b>	<b>(79)</b>	<b>(206)</b>

**Note**

For half year 2016, the credit of £383 million principally arises from unrealised gains on bonds backing surplus assets driven by decreases in long-term interest rates (as shown in note 14(i)).

**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	
	Half year	Half year	Full year
Investment return related experience on fixed income securities <sup>note(a)</sup>	(64)	(25)	(17)
Investment return related impact due to changed expectation of profits on in-force variable annuity business in future periods based on current period separate account return, net of related hedging activity and other items <sup>note(b)</sup>	(173)	(246)	(736)
<b>Total US operations</b>	<b>(237)</b>	<b>(271)</b>	<b>(753)</b>

**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 period;
  - 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 period and that assumed at the start of the period; 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	
	Half year	Half year	Full year
Shareholder-backed annuity business <sup>note(a)</sup>	335	(90)	(88)
With-profits and other <sup>note(b)</sup>	171	58	(106)
<b>Total UK insurance operations*</b>	<b>506</b>	<b>(32)</b>	<b>(194)</b>

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

**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; and
  - the difference between actual and expected default experience.
- (b) The £171 million fluctuation in half year 2016 for with-profits, unit-linked and other business represents the impact of achieving a 5.3 per cent pre-tax return on the with-profits fund (including unallocated surplus) compared to the assumed rate of return of 2.3 per cent (half year 2015: total return of 3.0 per cent compared to assumed rate of 2.95 per cent; full year 2015: total return of 3.1 per cent compared to assumed rate of 5.4 per cent), and a beneficial effect of an increase in future unit-linked fee income arising from market movements. The fluctuations for with-profits and other business also includes 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 declines in the UK equity market.

**(v) Other operations**

Short-term fluctuations in investment returns for other operations of negative £(163) million (half year 2015: positive £15 million; full year 2015: negative £(55) million) include unrealised value movements on investments held outside of the main life operations and exchange movements.

## 7 Effect of changes in economic assumptions

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

### (i) Group summary

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Asia operations <sup>note (ii)</sup>	(586)	14		(148)
US operations <sup>note (iii)</sup>	(542)	36		109
UK insurance operations <sup>note (iv)</sup>	(217)	30		96
<b>Total</b>	<b>(1,345)</b>	<b>80</b>		<b>57</b>

### (ii) Asia operations

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

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Hong Kong	(483)	103		100
Indonesia	89	(36)		(15)
Malaysia	9	(19)		(30)
Singapore	(20)	(24)		(50)
Taiwan	(78)	2		(97)
Other	(103)	(12)		(56)
<b>Total Asia operations<sup>note</sup></b>	<b>(586)</b>	<b>14</b>		<b>(148)</b>

#### Note

The negative effect for half year 2016 of £(586) million arises across most territories principally reflecting a decrease in fund earned rates driven by the decline in long-term interest rates. There are partial offsetting impacts arising in Indonesia and Malaysia reflecting the positive impact of valuing future health and protection profits at lower discount rates, driven by the decrease in long-term interest rates (see note 14(i)).

### (iii) US operations

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

	2016 £m		2015 £m	
	Half year	Half year	Half year	Full year
Variable annuity business	(709)	81		104
Fixed annuity and other general account business	167	(45)		5
<b>Total<sup>note</sup></b>	<b>(542)</b>	<b>36</b>		<b>109</b>

#### Note

For half year 2016, the charge of £(542) million mainly reflects the decrease in the assumed separate account return and reinvestment rates for variable annuity business, following the 80 basis points decrease in the US 10-year treasury rate (half year 2015: 20 basis points increase; full year 2015: 10 basis points increase), resulting in lower projected fee income and an increase in projected benefit costs.

**7 Effect of changes in economic assumptions continued**

**(iv) UK insurance operations**

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

	2016 £m		2015 £m	
	Half year		Half year	Full year
Shareholder-backed annuity business <sup>note(a)</sup>	(24)		(113)	(56)
With-profits and other business <sup>note(b)</sup>	(193)		143	152
<b>Total UK insurance operations*</b>	<b>(217)</b>		<b>30</b>	<b>96</b>

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

**Notes**

- (a) For shareholder-backed annuity business the overall negative effect of £(24) million for half year 2016 (half year 2015: £(113) million; full year 2015: £(56) million) reflects an increase in the cost of capital, driven by the lower interest rates, 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 14(iii).
- (b) The charge of £(193) million for half year 2016 (half year 2015: £143 million; full year 2015: £152 million) reflects the effect of lower expected future fund earned rates (as shown in note 14(iii)), driven by the 90 basis points decrease in 15-year gilt rates (half year 2015: 30 basis points increase; full year 2015: 20 basis points increase).

**8 Net core structural borrowings of shareholder-financed operations**

	2016 £m			2015 £m					
	30 Jun			30 Jun			31 Dec		
	IFRS basis	Mark to market value adjustment	EEV basis at market value	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* cash and short-term investments	(2,546)	–	(2,546)	(2,094)	–	(2,094)	(2,173)	–	(2,173)
Central funds <sup>note</sup>									
Subordinated debt	4,956	192	5,148	3,897	295	4,192	4,018	211	4,229
Senior debt	549	171	720	549	147	696	549	142	691
	<b>5,505</b>	<b>363</b>	<b>5,868</b>	<b>4,446</b>	<b>442</b>	<b>4,888</b>	<b>4,567</b>	<b>353</b>	<b>4,920</b>
Holding company net borrowings	2,959	363	3,322	2,352	442	2,794	2,394	353	2,747
Prudential Capital bank loan	275	–	275	275	–	275	275	–	275
Jackson Surplus Notes	186	63	249	159	51	210	169	55	224
<b>Net core structural borrowings of shareholder-financed operations</b>	<b>3,420</b>	<b>426</b>	<b>3,846</b>	<b>2,786</b>	<b>493</b>	<b>3,279</b>	<b>2,838</b>	<b>408</b>	<b>3,246</b>

\* Including central finance subsidiaries.

**Note**

In June 2016, the Company issued core structural borrowings of US\$1,000 million 5.25 per cent subordinated notes due 2055. The proceeds, net of costs, were £681 million (£738 million carrying value on IFRS basis, net of costs, translated at 30 June 2016 closing rate). The movement in IFRS basis core structural borrowings from full year 2015 to half year 2016 also includes foreign exchange effects.



## 9 Reconciliation of movement in shareholders' equity

Half year 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			
<b>Operating profit (based on longer-term investment returns)</b>							
Long-term business:							
New business <sup>note 4</sup>	824	311	125	1,260	–	–	1,260
Business in force <sup>note 5</sup>	391	383	259	1,033	–	–	1,033
	1,215	694	384	2,293	–	–	2,293
Asset management and general insurance commission	–	–	–	–	252	–	252
Other results	–	–	(11)	(11)	–	(271)	(282)
<b>Operating profit based on longer-term investment returns</b>	1,215	694	373	2,282	252	(271)	2,263
Total non-operating (loss) profit	(203)	(786)	289	(700)	(61)	(108)	(869)
<b>Profit for the period</b>	1,012	(92)	662	1,582	191	(379)	1,394
<b>Other items taken directly to equity</b>							
Exchange movements on foreign operations and net investment hedges	1,881	944	–	2,825	55	(217)	2,663
Intra-group dividends (including statutory transfers) and investment in operations <sup>note (ii)</sup>	(282)	(314)	20	(576)	(189)	765	–
External dividends	–	–	–	–	–	(935)	(935)
Mark to market value movements on Jackson assets backing surplus and required capital	–	138	–	138	–	–	138
Other movements <sup>note (iii)</sup>	–	(13)	(60)	(73)	48	(140)	(165)
<b>Net increase in shareholders' equity</b>	2,611	663	622	3,896	105	(906)	3,095
Shareholders' equity at beginning of period:							
As previously reported	13,643	9,487	9,647	32,777	2,354	(2,772)	32,359
Effect of implementation of Solvency II <sup>note 2</sup>	–	–	(473)	(473)	–	–	(473)
Other opening adjustments <sup>note (v)</sup>	66	–	279	345	–	(345)	–
	13,709	9,487	9,453	32,649	2,354	(3,117)	31,886
<b>Shareholders' equity at end of period</b>	16,320	10,150	10,075	36,545	2,459	(4,023)	34,981
Representing:							
Statutory IFRS basis shareholders' equity:							
Net assets (liabilities)	4,615	5,056	6,126	15,797	1,229	(3,909)	13,117
Goodwill	–	–	–	–	1,230	258	1,488
Total IFRS basis shareholders' equity	4,615	5,056	6,126	15,797	2,459	(3,651)	14,605
Additional retained profit (loss) on an EEV basis <sup>note (iv)</sup>	11,705	5,094	3,949	20,748	–	(372)	20,376
EEV basis shareholders' equity	16,320	10,150	10,075	36,545	2,459	(4,023)	34,981
Balance at beginning of period:*							
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 <sup>note (iv)</sup>	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 half year 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016. The balance at beginning of period 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 £(4,023) million represents the shareholders' equity of £(4,281) million for other operations as shown in the movement in shareholders' equity and includes goodwill of £258 million (half year 2015: £231 million; full year 2015: £233 million) related to Asia long-term operations.
- (ii) Intra-group dividends (including statutory transfers) represents dividends that have been declared in the period 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 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 £(363) million (half year 2015: £(442) million; full year 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.

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

	Half year 2016 £m				
	Free surplus note 11	Required capital	Total net worth	Value of in-force business note (i)	Total long-term business operations
<b>Group*</b>					
Shareholders' equity at beginning of period:					
As previously reported	5,642	4,705	10,347	22,430	32,777
Opening adjustments*	(1,473)	4,578	3,105	(3,233)	(128)
	4,169	9,283	13,452	19,197	32,649
New business contribution	(502)	347	(155)	1,415	1,260
Existing business – transfer to net worth	1,437	(361)	1,076	(1,076)	–
Expected return on existing business <sup>note 5</sup>	48	108	156	642	798
Changes in operating assumptions and experience variances <sup>note 5</sup>	385	(115)	270	(35)	235
Solvency II and restructuring costs	(11)	–	(11)	–	(11)
<b>Post-tax operating profit</b>	1,357	(21)	1,336	946	2,282
Non-operating items	(812)	583	(229)	(471)	(700)
<b>Profit after tax from long-term business</b>	545	562	1,107	475	1,582
Exchange movements on foreign operations and net investment hedges	329	382	711	2,114	2,825
Intra-group dividends and investment in operations	(576)	–	(576)	–	(576)
Other movements	67	(1)	66	(1)	65
<b>Shareholders' equity at end of period*</b>	4,534	10,226	14,760	21,785	36,545
<b>Asia operations</b>					
New business contribution	(237)	67	(170)	994	824
Existing business – transfer to net worth	559	(69)	490	(490)	–
Expected return on existing business <sup>note 5</sup>	15	24	39	345	384
Changes in operating assumptions and experience variances <sup>note 5</sup>	29	48	77	(70)	7
<b>Post-tax operating profit</b>	366	70	436	779	1,215
Non-operating items	(29)	167	138	(341)	(203)
<b>Profit after tax from long-term business</b>	337	237	574	438	1,012
<b>US operations</b>					
New business contribution	(209)	189	(20)	331	311
Existing business – transfer to net worth	555	(97)	458	(458)	–
Expected return on existing business <sup>note 5</sup>	22	24	46	163	209
Changes in operating assumptions and experience variances <sup>note 5</sup>	124	(3)	121	53	174
<b>Post-tax operating profit</b>	492	113	605	89	694
Non-operating items	(242)	(132)	(374)	(412)	(786)
<b>Profit after tax from long-term business</b>	250	(19)	231	(323)	(92)
<b>UK insurance operations*</b>					
New business contribution	(56)	91	35	90	125
Existing business – transfer to net worth	323	(195)	128	(128)	–
Expected return on existing business <sup>note 5</sup>	11	60	71	134	205
Changes in operating assumptions and experience variances <sup>note 5</sup>	232	(160)	72	(18)	54
Solvency II and restructuring costs	(11)	–	(11)	–	(11)
<b>Post-tax operating profit</b>	499	(204)	295	78	373
Non-operating items	(541)	548	7	282	289
<b>Profit after tax from long-term business*</b>	(42)	344	302	360	662

\* The half year 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016. Opening adjustments represent the impact of Solvency II for UK insurance operations at 1 January 2016 (as explained in note 2), together with the effect of a classification change, as discussed in note 9(v).

**Notes**

- (i) The 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:

	30 Jun 2016 £m			
	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	13,442	8,225	3,405	25,072
Cost of capital	(605)	(191)	(716)	(1,512)
Cost of time value of guarantees <sup>note(ii)</sup>	(168)	(1,607)	–	(1,775)
Net value of in-force business	12,669	6,427	2,689	21,785
Total net worth	3,651	3,723	7,386	14,760
Total embedded value	16,320	10,150	10,075	36,545

  

	31 Dec 2015* £m			
	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	11,279	7,355	3,043	21,677
Cost of capital	(438)	(229)	(713)	(1,380)
Cost of time value of guarantees <sup>note(ii)</sup>	(88)	(1,012)	–	(1,100)
Net value of in-force business	10,753	6,114	2,330	19,197
Total net worth	2,956	3,373	7,123	13,452
Total embedded value	13,709	9,487	9,453	32,649

\* The half year 2016 results for UK insurance operations have been prepared on a basis that reflects the Solvency II regime effective from 1 January 2016. The full year 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 (see note 2 for details), together with the effect of a classification change, as discussed in note 9(v).

- (ii) The increase in the cost of time value of guarantees for US operations from £(1,012) million at 31 December 2015 to £(1,607) million at 30 June 2016 primarily relates to variable annuity business, mainly arising from the decrease in the expected long-term separate account rate of return following the 80 basis points decline in the US 10-year treasury bond yield and the level of equity market performance.

**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 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 and constant exchange rates bases. The 2015 CER comparative results are translated at half year 2016 average exchange rates.

	2016 £m	2015 £m		% change	
	Half year	AER Half year	CER Half year	AER	CER
<b>Asia operations</b>					
Underlying free surplus generated from in-force life business	603	519	529	16%	14%
Investment in new business <sup>note (iii)(a)</sup>	(237)	(213)	(217)	(11)%	(9)%
Long-term business	366	306	312	20%	17%
Eastspring Investments <sup>note (iii)(b)</sup>	53	50	52	6%	2%
<b>Total</b>	<b>419</b>	<b>356</b>	<b>364</b>	<b>18%</b>	<b>15%</b>
<b>US operations</b>					
Underlying free surplus generated from in-force life business	701	700	746	0%	(6)%
Investment in new business <sup>note (iii)(a)</sup>	(209)	(164)	(175)	(27)%	(19)%
Long-term business	492	536	571	(8)%	(14)%
Broker-dealer and asset management <sup>note (iii)(b)</sup>	(8)	8	8	(200)%	(200)%
<b>Total</b>	<b>484</b>	<b>544</b>	<b>579</b>	<b>(11)%</b>	<b>(16)%</b>
<b>UK insurance operations*</b>					
Underlying free surplus generated from in-force life business	555	352	352	58%	58%
Investment in new business <sup>note (iii)(a)</sup>	(56)	(57)	(57)	2%	2%
Long-term business	499	295	295	69%	69%
General insurance commission <sup>note (iii)(b)</sup>	15	14	14	7%	7%
<b>Total</b>	<b>514</b>	<b>309</b>	<b>309</b>	<b>66%</b>	<b>66%</b>
<b>M&amp;G</b> <sup>note (iii)(b)</sup>	<b>181</b>	<b>203</b>	<b>203</b>	<b>(11)%</b>	<b>(11)%</b>
<b>Prudential Capital</b> <sup>note (iii)(b)</sup>	<b>11</b>	<b>6</b>	<b>6</b>	<b>83%</b>	<b>83%</b>
<b>Underlying free surplus generated from insurance and asset management operations</b>	<b>1,609</b>	<b>1,418</b>	<b>1,461</b>	<b>13%</b>	<b>10%</b>
Representing:					
Long-term business*:					
Expected in-force cash flows (including expected return on net assets)	1,485	1,418	1,465	5%	1%
Effects of changes in operating assumptions, operating experience variances and other operating items	374	153	162	144%	131%
Underlying free surplus generated from in-force life business	1,859	1,571	1,627	18%	14%
Investment in new business <sup>note (iii)(a)</sup>	(502)	(434)	(449)	(16)%	(12)%
<b>Total long-term business</b>	<b>1,357</b>	<b>1,137</b>	<b>1,178</b>	<b>19%</b>	<b>15%</b>
Asset management and general insurance commission <sup>note (iii)(b)</sup>	252	281	283	(10)%	(11)%
<b>Total</b>	<b>1,609</b>	<b>1,418</b>	<b>1,461</b>	<b>13%</b>	<b>10%</b>

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

**(ii) Underlying free surplus generated - total Group**

	2016 £m	2015 £m		% change	
	Half year	AER Half year	CER Half year	AER	CER
Underlying free surplus generated from insurance and asset management operations <sup>note (ii)(b)</sup>	1,609	1,418	1,461	13%	10%
Other income and expenditure net of restructuring and Solvency II costs <sup>note (iii)(b)</sup>	(308)	(285)	(285)	(8)%	(8)%
Interest received from tax settlement	37	–	–	100%	100%
<b>Total underlying free surplus generated, including other operations</b>	<b>1,338</b>	<b>1,133</b>	<b>1,176</b>	<b>18%</b>	<b>14%</b>

**(iii) Movement in free surplus**

	Half year 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
<b>Long-term business and asset management operations*</b>					
Underlying free surplus generated	1,357	252	1,609	(271)	1,338
Other non-operating items <sup>note (c)</sup>	(812)	(61)	(873)	(129)	(1,002)
Net cash flows to parent company <sup>note (d)</sup>	545	191	736	(400)	336
External dividends	(830)	(288)	(1,118)	1,118	–
Exchange movements, timing differences and other items <sup>note (e)</sup>	–	–	–	(935)	(935)
Exchange movements, timing differences and other items <sup>note (e)</sup>	650	202	852	205	1,057
<b>Net movement in free surplus</b>	<b>365</b>	<b>105</b>	<b>470</b>	<b>(12)</b>	<b>458</b>
Balance at 1 January 2016:					
Balance at beginning of period	5,642	1,124	6,766	1,224	7,990
Opening adjustments <sup>†</sup>	(1,473)	–	(1,473)	(345)	(1,818)
	<b>4,169</b>	<b>1,124</b>	<b>5,293</b>	<b>879</b>	<b>6,172</b>
<b>Balance at end of period</b>	<b>4,534</b>	<b>1,229</b>	<b>5,763</b>	<b>867</b>	<b>6,630</b>
Representing:					
Asia operations			2,120	–	2,120
US operations			1,937	–	1,937
UK operations			1,706	–	1,706
Other operations <sup>note (b)</sup>			–	867	867
			<b>5,763</b>	<b>867</b>	<b>6,630</b>
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 <sup>note (b)</sup>			–	879	879
			<b>5,293</b>	<b>879</b>	<b>6,172</b>

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

† Opening adjustments represent the impact of adopting Solvency II at 1 January 2016 (as explained in note 2), together with the effect of a reclassification between long-term business and other operations, as discussed in note 9(v).

11 Analysis of movement in free surplus continued

(iii) Movement in free surplus continued

	Half year 2015 £m				Group total
	Long-term business	Asset management and UK general insurance commission note (b)	Total insurance and asset management operations	Central and other operations note (b)	
<b>Long-term business and asset management operations*</b>					
Underlying free surplus generated	1,137	281	1,418	(285)	1,133
Disposal of Japan life business	23	–	23	–	23
Other non-operating items <sup>note(c)</sup>	(141)	(4)	(145)	37	(108)
	1,019	277	1,296	(248)	1,048
Net cash flows to parent company <sup>note(d)</sup>	(910)	(158)	(1,068)	1,068	–
External dividends	–	–	–	(659)	(659)
Exchange movements, timing differences and other items <sup>note(e)</sup>	27	(10)	17	456	473
<b>Net movement in free surplus</b>	136	109	245	617	862
Balance at beginning of period	4,193	866	5,059	1,439	6,498
<b>Balance at end of period</b>	4,329	975	5,304	2,056	7,360

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

	Full year 2015 £m				Group total
	Long-term business	Asset management and UK general insurance commission note (b)	Total insurance and asset management operations	Central and other operations note (b)	
<b>Long-term business and asset management operations*</b>					
Underlying free surplus generated	2,544	506	3,050	(588)	2,462
Disposal of Japan life business	23	–	23	–	23
Other non-operating items <sup>note(c)</sup>	(407)	(53)	(460)	29	(431)
	2,160	453	2,613	(559)	2,054
Net cash flows to parent company <sup>note(d)</sup>	(1,271)	(354)	(1,625)	1,625	–
External dividends	–	–	–	(974)	(974)
Exchange movements, timing differences and other items <sup>note(e)</sup>	560	159	719	(307)	412
<b>Net movement in free surplus</b>	1,449	258	1,707	(215)	1,492
Balance at beginning of period	4,193	866	5,059	1,439	6,498
<b>Balance at end of period</b>	5,642	1,124	6,766	1,224	7,990

\* The half year 2016 results for UK insurance operations have been reported on a basis that reflects the Solvency II regime effective from 1 January 2016. The half year 2015 and full year 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for those periods (see note 2 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 movements, timing differences and other items represent:

Half year 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 movements <sup>note 10</sup>	329	55	384	50	434
Mark to market value movements on Jackson assets backing surplus and required capital <sup>note 9</sup>	138	–	138	–	138
Other items <sup>note (f)</sup>	183	147	330	155	485
	650	202	852	205	1,057

  

Half year 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 movements	(64)	(7)	(71)	(16)	(87)
Mark to market value movements on Jackson assets backing surplus and required capital	(8)	–	(8)	–	(8)
Other items <sup>note (f)</sup>	99	(3)	96	472	568
	27	(10)	17	456	473

  

Full year 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 movements	67	3	70	10	80
Mark to market value movements on Jackson assets backing surplus and required capital	(76)	–	(76)	–	(76)
Other items <sup>note (f)</sup>	569	156	725	(317)	408
	560	159	719	(307)	412

(f) Other items include the effect of intra-group loans and non-cash items, together with movements in subordinated debt for Other operations. Full year 2015 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 Sensitivity of results to alternative assumptions

### (a) Sensitivity analysis - economic assumptions

The tables below show the sensitivity of the embedded value as at 30 June 2016 and 31 December 2015 and the new business contribution after the effect of required capital for half year 2016 and full year 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 full year 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 and embedded value to a 0.5 per cent reduction in interest rates is shown for half year 2016.

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

## 12 Sensitivity of results to alternative assumptions continued

## (a) Sensitivity analysis – economic assumptions continued

## New business contribution

	Half year 2016 £m				Full year 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
<b>New business contribution</b> <sup>note 4</sup>	824	311	125	1,260	1,490	809	318	2,617
Discount rates – 1% increase	(160)	(16)	(14)	(190)	(260)	(38)	(40)	(338)
Interest rates – 1% increase	58	41	5	104	28	80	7	115
Interest rates – 1% decrease	–	–	–	–	(78)	(127)	(9)	(214)
Interest rates – 0.5% decrease	(87)	(31)	(7)	(125)	–	–	–	–
Equity/property yields – 1% rise	43	47	3	93	73	95	20	188
Long-term expected defaults – 5 bps increase	–	–	(1)	(1)	–	–	(8)	(8)

## Embedded value of long-term business operations

	30 Jun 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
<b>Shareholders' equity</b> <sup>note 9</sup>	16,320	10,150	10,075	36,545	13,643	9,487	9,647	32,777
Discount rates – 1% increase	(1,733)	(266)	(762)	(2,761)	(1,448)	(271)	(586)	(2,305)
Interest rates – 1% increase	(276)	(145)	(252)	(673)	(380)	(46)	(328)	(754)
Interest rates – 1% decrease	–	–	–	–	132	(93)	426	465
Interest rates – 0.5% decrease	(238)	(53)	126	(165)	–	–	–	–
Equity/property yields – 1% rise	601	676	206	1,483	506	514	271	1,291
Equity/property market values – 10% fall	(328)	(69)	(483)	(880)	(246)	(411)	(373)	(1,030)
Statutory minimum capital	203	123	–	326	148	162	4	314
Long-term expected defaults – 5 bps increase	–	–	(135)	(135)	–	–	(141)	(141)

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

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 assumption 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) Effect of change in future UK corporate tax rate announced in March 2016

The Finance Bill announced on 24 March 2016, includes a reduction in the UK corporate tax rate from 18 per cent to 17 per cent effective from 1 April 2020 (see note 14). The impact of this change has not been factored in the EEV results or shareholders' equity at 30 June 2016 as it has not been substantively enacted by the end of the reporting period. Had the half year 2016 EEV results been prepared on the basis of this new tax rate, the net of tax value of in-force business of UK insurance operations at 30 June 2016 would have been higher by around £25 million.



## 13 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 13(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 13(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 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 other operations. Under the EEV Principles, the results for covered business incorporate the projected margins of attaching internal asset management, as described in note 13(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 14). 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.

### 13 Methodology and accounting presentation continued

#### (a) Methodology continued

##### **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 period.

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-period 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 new business amounts and one-tenth of single new business amounts. PVNBP is calculated as equalling single premiums plus the present value of expected premiums of new regular premium 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 period (to the extent that changes in capital values do not directly match changes in liabilities) are included directly in the profit for the period 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 the IFRS basis.

However, in determining the movements on the additional shareholders' interest, the basis for calculating the Jackson EEV result 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 capital supporting the Group's long-term business. This capital is referred to as required capital. 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 investment earnings (post-tax) 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 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 all periods, depending on the particular product, jurisdiction where issued, and date of issue. For half year 2016, 87 per cent (half year 2015: 86 per cent; full year 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 (half year 2015: 2.7 per cent; full year 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 policyholder's value in the event of poor equity market performance. Jackson hedges the GMDB and GMWB guarantees through the use of equity options and futures contracts, and fully reinsures the GMIB guarantees.

Jackson also issues fixed index annuities 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.

###### 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 bonuses – 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 £54 million at 30 June 2016 (Pillar I Peak 2 basis at 30 June 2015: £50 million; 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 £575 million was held in SAIF at 30 June 2016 (Pillar I Peak 2 basis at 30 June 2015: £471 million; Pillar I Peak 2 basis at 31 December 2015: £412 million) to honour the guarantees. As described in note 13(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.

###### Time value

The value of financial options and guarantees comprises two parts. One is given by a deterministic valuation on best estimate assumptions (the intrinsic value). The other 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 14(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.

### 13 Methodology and accounting presentation continued

#### (a) Methodology continued

##### (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 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 of UK insurance operations as a whole; for half year and full year 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 of UK insurance operations 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 new business and in-force 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 period 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 period. 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 covered business assets.

##### (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 rate is based on a 10-year local government bond yield.

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 rate (as for half year and full year 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.

#### **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 14(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 in force 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 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 half year and full year 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, derived as a percentage of historical default experience based on Moody's data for the period 1970 to 2009, and the definition of the credit rating assigned to each asset held is the second highest credit rating published by Moody's, Standard & Poor's and Fitch;
- a credit risk premium, derived as the excess over the expected long-term defaults, of the 95th percentile of historical cumulative defaults based on Moody's data for the period 1970 to 2009, and subject to a minimum margin over expected long-term defaults of 50 per cent;
- an allowance for a 1-notch downgrade of the asset portfolio subject to credit risk; and
- an allowance for short-term downgrades and defaults.

### 13 Methodology and accounting presentation continued

#### (a) Methodology continued

##### (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 gilts, 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.

For UK shareholder-backed annuity business for half year and full year 2015, 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 period. Foreign currency assets and liabilities have been translated at period-end rates of exchange. The principal exchange rates are shown in note A1 of the IFRS statements.

##### (x) Taxation

In determining the post-tax profit for the period 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 PRIL. In addition, the EEV results are calculated after taking account of the impact of contingent loan arrangements between Group companies.

#### (b) Accounting presentation

##### (i) Analysis of post-tax profit

To the extent applicable, the presentation of the EEV post-tax profit for the period 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 13(b)(ii) below) and incorporate the following:

- new business contribution, as defined in note 13(a)(ii);
- unwind of discount on the value of in-force business and other expected returns, as described in note 13(b)(iii) below;
- the impact of routine changes of estimates relating to non-economic assumptions, as described in note 13(b)(iv) below; and
- non-economic experience variances, as described in note 13(b)(v) below.

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.

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 13(b)(iii) below.

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 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 result for the period.

**(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 period (adjusted for the effect of current period 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 half year 2016. Following the implementation of Solvency II the EEV risk-free rate is based on a yield curve (as set out in note 13a(viii) above). This yield curve 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.
- For with-profits business, the opening value of in-force is adjusted for the effects 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 30 June 2016 the shareholders' interest in the smoothed surplus assets used for this purpose only, were £21 million lower (30 June 2015: £104 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 period. For presentational purposes the effect of change is delineated to show the effect on the opening value of in-force as operating assumption changes, with the experience variance subsequently being determined by reference to the end-of-period assumptions (see note 13(b)(v) below).

**(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 period 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.

## 14 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 period-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 period.

#### (i) Asia operations <sup>notes (b), (c)</sup>

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

	Risk discount rate %					
	New business			In-force business		
	2016	2015		2016	2015	
	30 Jun	30 Jun	31 Dec	30 Jun	30 Jun	31 Dec
China	9.4	10.2	9.4	9.4	10.2	9.4
Hong Kong <sup>notes (b), (d)</sup>	3.0	3.9	3.7	2.9	3.9	3.7
Indonesia	11.5	12.5	12.8	11.5	12.5	12.8
Korea	5.9	6.4	6.1	4.0	5.8	5.7
Malaysia <sup>note (d)</sup>	6.3	6.5	6.6	6.4	6.6	6.7
Philippines	10.5	11.2	11.3	10.5	11.2	11.3
Singapore <sup>note (d)</sup>	3.6	4.5	4.3	4.5	5.3	5.1
Taiwan	3.8	4.2	4.0	3.3	4.2	3.9
Thailand	8.7	9.7	9.3	8.7	9.7	9.3
Vietnam	13.7	13.6	13.8	13.7	13.6	13.8
Total weighted risk discount rate <sup>note (a)</sup>	4.7	6.5	5.9	5.7	6.6	6.4

	10-year government bond yield %			Expected long-term inflation %		
	2016	2015		2016	2015	
	30 Jun	30 Jun	31 Dec	30 Jun	30 Jun	31 Dec
	China	2.9	3.7	2.9	2.5	2.5
Hong Kong <sup>notes (b), (d)</sup>	1.5	2.4	2.3	2.3	2.3	2.3
Indonesia	7.6	8.5	8.9	5.0	5.0	5.0
Korea	1.5	2.5	2.1	3.0	3.0	3.0
Malaysia <sup>note (d)</sup>	3.8	4.0	4.2	2.5	2.5	2.5
Philippines	3.7	4.5	4.6	4.0	4.0	4.0
Singapore <sup>note (d)</sup>	1.9	2.7	2.6	2.0	2.0	2.0
Taiwan	0.8	1.5	1.0	1.0	1.0	1.0
Thailand	2.0	3.0	2.5	3.0	3.0	3.0
Vietnam	6.9	6.8	7.1	5.5	5.5	5.5

#### 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 result and the closing value of in-force business. The changes in the risk discount rates for individual Asia territories reflect the movements in 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 (half year 2015: 3.5 per cent to 8.7 per cent; full year 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:

	2016 %		2015 %	
	30 Jun	30 Jun	30 Jun	31 Dec
Hong Kong	5.5	6.4	6.3	
Malaysia	9.8	10.0	10.2	
Singapore	7.9	8.7	8.6	



**(ii) US operations**

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

	2016 %		2015 %	
	30 Jun		30 Jun	31 Dec
Assumed new business spread margins:*				
Fixed annuity business:†				
January to June issues	1.25		1.25	1.25
July to December issues	n/a		n/a	1.50
Fixed index annuity business:				
January to June issues	1.50		1.50	1.50
July to December issues	n/a		n/a	1.75
Institutional business	0.50		0.70	0.70
Allowance for long-term defaults included in projected spread <sup>note 13(a)(viii)</sup>	0.21		0.24	0.24
Risk discount rate:				
Variable annuity:				
Risk discount rate	6.0		7.0	6.8
Additional allowance for credit risk included in risk discount rate <sup>note 13(a)(viii)</sup>	0.2		0.2	0.2
Non-variable annuity:				
Risk discount rate	3.1		4.1	3.9
Additional allowance for credit risk included in risk discount rate <sup>note 13(a)(viii)</sup>	1.0		1.0	1.0
Weighted average total:				
New business	5.7		6.9	6.7
In-force business	5.4		6.4	6.2
US 10-year treasury bond rate at end of period	1.5		2.4	2.3
Pre-tax expected long-term nominal rate of return for US equities	5.5		6.4	6.3
Expected long-term rate of inflation	2.7		2.9	2.8
Equity risk premium	4.0		4.0	4.0
S&P equity return volatility <sup>note (v)</sup>	18.0		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.

**14 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 half year 2016, these yield curves are used to derive pre-tax expected long-term nominal rates of investment return and 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 risk discount rate, as explained in note 13(a)(viii).

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

The key economic assumptions are shown below for all periods; for half year 2016 the single risk discount rate is shown, along with the 15-year nominal rate of return based on the yield curve. For half and full year 2015 the long-term nominal rates of return are shown.

	2016 %	2015* %	
	30 Jun	30 Jun	31 Dec
<b>Shareholder-backed annuity business:</b>			
Risk discount rate: <sup>note(a)</sup>			
New business	4.5	6.4	5.7
In-force business	4.2	7.1	7.4
Pre-tax expected 15-year/long-term nominal rates of investment return: <sup>note(b)</sup>			
New business	3.4	3.4	3.5
In-force business	2.9	3.7	3.5
<b>With-profits and other business:</b>			
Risk discount rate:			
New business	4.6	5.9	5.6
In-force business	4.6	6.1	5.7
Pre-tax expected 15-year/long-term nominal rates of investment return: <sup>note(b)</sup>			
Overseas equities	5.5 to 8.8	6.4 to 8.9	6.3 to 9.4
Property	4.3	5.3	5.2
15-year gilt rate	1.5	2.5	2.4
Corporate bonds	3.2	4.1	4.1
Expected 15-year/long-term rate of inflation	3.1	3.3	3.1
Equity risk premium	4.0	4.0	4.0

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

**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 30 June 2016:

Year	30 Jun 2016				
	1	5	10	15	20
Risk-free rate %	0.4	0.5	0.9	1.1	1.1

**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 13(a)(iv).

**(iv) Asia operations**

- The stochastic cost of guarantees is primarily of significance for the Hong Kong, Korea, 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.
- 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 all periods shown.

**(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.
- The volatility of equity returns ranges from 18 per cent to 27 per cent for all periods shown, and the standard deviation of interest rates ranges from 2.3 per cent to 2.6 per cent (half year and full year 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.
- The standard deviation of equities and property ranges from 15 per cent to 20 per cent for all periods shown.

## 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 13(a)(x).

The local standard corporate tax rates applicable for the most significant operations for 2015 and half year 2016 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: 18.0

\*The sensitivity of the embedded value as at 30 June 2016 to the effect of the future reduction in the UK corporate tax rate announced in March 2016 is shown in note 12(b).

15 Total insurance and investment products new business<sup>note (i)</sup>

	Single			Regular			Annual premium and contribution equivalents (APE) <sup>note 13(a)(ii)</sup>			Present value of new business premiums (PVNBP) <sup>note 13(a)(ii)</sup>		
	2016 £m		2015 £m	2016 £m		2015 £m	2016 £m		2015 £m	2016 £m		2015* £m
	Half year	Half year	Full year	Half year	Half year	Full year	Half year	Half year	Full year	Half year	Half year	Full year
<b>Insurance operations</b>												
Asia	1,045	1,241	2,120	1,551	1,242	2,641	1,655	1,366	2,853	8,955	7,340	15,208
US	7,816	8,574	17,286	–	–	–	782	857	1,729	7,816	8,574	17,286
UK retail†	4,936	3,022	6,955	99	91	179	593	393	874	5,267	3,355	7,561
<b>Group total excluding bulk annuities</b>	<b>13,797</b>	<b>12,837</b>	<b>26,361</b>	<b>1,650</b>	<b>1,333</b>	<b>2,820</b>	<b>3,030</b>	<b>2,616</b>	<b>5,456</b>	<b>22,038</b>	<b>19,269</b>	<b>40,055</b>
UK bulk annuities†	–	1,169	1,508	–	–	–	–	117	151	–	1,169	1,508
<b>Group total</b>	<b>13,797</b>	<b>14,006</b>	<b>27,869</b>	<b>1,650</b>	<b>1,333</b>	<b>2,820</b>	<b>3,030</b>	<b>2,733</b>	<b>5,607</b>	<b>22,038</b>	<b>20,438</b>	<b>41,563</b>
<b>Asia insurance operations</b>												
Cambodia	–	–	–	6	3	8	6	3	8	30	17	38
Hong Kong	506	242	546	817	495	1,158	868	519	1,213	5,045	3,015	7,007
Indonesia	84	147	230	117	168	303	125	183	326	486	762	1,224
Malaysia	52	53	100	104	100	201	109	105	211	630	630	1,208
Philippines	36	79	146	26	21	44	30	29	59	118	146	287
Singapore	174	276	454	125	125	264	142	153	309	1,063	1,097	2,230
Thailand	36	34	69	39	45	88	43	48	95	197	207	422
Vietnam	3	3	6	44	34	82	44	34	83	182	140	343
<b>SE Asia operations including Hong Kong</b>	<b>891</b>	<b>834</b>	<b>1,551</b>	<b>1,278</b>	<b>991</b>	<b>2,148</b>	<b>1,367</b>	<b>1,074</b>	<b>2,304</b>	<b>7,751</b>	<b>6,014</b>	<b>12,759</b>
China <sup>note(ii)</sup>	74	259	308	102	63	111	109	89	142	452	487	739
Korea	42	102	182	46	64	123	50	74	141	276	398	780
Taiwan	14	27	45	55	58	127	56	61	131	205	209	442
India <sup>note(iii)</sup>	24	19	34	70	66	132	73	68	135	271	232	488
<b>Total Asia insurance operations</b>	<b>1,045</b>	<b>1,241</b>	<b>2,120</b>	<b>1,551</b>	<b>1,242</b>	<b>2,641</b>	<b>1,655</b>	<b>1,366</b>	<b>2,853</b>	<b>8,955</b>	<b>7,340</b>	<b>15,208</b>
<b>US insurance operations</b>												
Variable annuities	4,995	6,065	11,977	–	–	–	500	606	1,198	4,995	6,065	11,977
Elite Access (variable annuity)	990	1,656	3,144	–	–	–	99	166	314	990	1,656	3,144
Fixed annuities	285	233	477	–	–	–	28	23	48	285	233	477
Fixed index annuities	277	210	458	–	–	–	28	21	46	277	210	458
Wholesale	1,269	410	1,230	–	–	–	127	41	123	1,269	410	1,230
<b>Total US insurance operations</b>	<b>7,816</b>	<b>8,574</b>	<b>17,286</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>782</b>	<b>857</b>	<b>1,729</b>	<b>7,816</b>	<b>8,574</b>	<b>17,286</b>
<b>UK and Europe insurance operations</b>												
Individual annuities	327	279	565	–	–	–	33	28	57	327	279	565
Bonds	1,956	1,558	3,327	–	–	–	196	156	333	1,957	1,559	3,328
Corporate pensions	60	51	175	68	71	135	74	76	152	258	300	600
Individual pensions	1,137	480	1,185	21	14	32	134	62	150	1,212	536	1,295
Income drawdown	808	386	1,024	–	–	–	81	39	102	808	386	1,024
Other products	648	268	679	10	6	12	75	32	80	705	295	749
<b>Total retail</b>	<b>4,936</b>	<b>3,022</b>	<b>6,955</b>	<b>99</b>	<b>91</b>	<b>179</b>	<b>593</b>	<b>393</b>	<b>874</b>	<b>5,267</b>	<b>3,355</b>	<b>7,561</b>
Bulk annuities	–	1,169	1,508	–	–	–	–	117	151	–	1,169	1,508
<b>Total UK and Europe insurance operations</b>	<b>4,936</b>	<b>4,191</b>	<b>8,463</b>	<b>99</b>	<b>91</b>	<b>179</b>	<b>593</b>	<b>510</b>	<b>1,025</b>	<b>5,267</b>	<b>4,524</b>	<b>9,069</b>
<b>Group total</b>	<b>13,797</b>	<b>14,006</b>	<b>27,869</b>	<b>1,650</b>	<b>1,333</b>	<b>2,820</b>	<b>3,030</b>	<b>2,733</b>	<b>5,607</b>	<b>22,038</b>	<b>20,438</b>	<b>41,563</b>
<b>Group total excluding UK bulk annuities</b>	<b>13,797</b>	<b>12,837</b>	<b>26,361</b>	<b>1,650</b>	<b>1,333</b>	<b>2,820</b>	<b>3,030</b>	<b>2,616</b>	<b>5,456</b>	<b>22,038</b>	<b>19,269</b>	<b>40,055</b>

\* For half year 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. The half year 2015 and full year 2015 comparative results for UK insurance operations reflect the Solvency I basis being the regime applicable for those periods (see note 2 for details).

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

## Investment products funds under management<sup>notes (iv), (v), (vi)</sup>

	Half year 2016 £m				
	1 January 2016	Market gross inflows	Redemptions	Market exchange translation and other movements	30 Jun 2016
Eastspring Investments	30,281	6,163	(6,575)	2,859	32,728
M&G	126,405	9,731	(16,697)	10,217	129,656
<b>Group total</b>	<b>156,686</b>	<b>15,894</b>	<b>(23,272)</b>	<b>13,076</b>	<b>162,384</b>

  

	Half year 2015 £m				
	1 January 2015	Market gross inflows	Redemptions	Market exchange translation and other movements	30 Jun 2015
Eastspring Investments	25,333	11,653	(7,092)	194	30,088
M&G	137,047	20,425	(22,800)	(1,272)	133,400
<b>Group total</b>	<b>162,380</b>	<b>32,078</b>	<b>(29,892)</b>	<b>(1,078)</b>	<b>163,488</b>

### 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.
- The format of the tables shown above is consistent with the distinction between insurance and investment products as applied for previous financial reporting periods. With the exception of some US institutional business, products categorised as 'insurance' refer to those classified as contracts of long-term insurance business for regulatory reporting purposes, ie falling within one of the classes of insurance specified in Part II of schedule 1 to the Regulated Activities Order under PRA regulations.
- The details shown above for insurance products include contributions for contracts that are classified under IFRS 4 'Insurance Contracts' as not containing significant insurance risk. These products are described as investment contracts or other financial instruments under IFRS. Contracts included in this category are primarily certain unit-linked and similar contracts written in UK insurance operations and Guaranteed Investment Contracts and similar funding agreements written in US operations.
- (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.
- (iv) Investment products referred to in the tables for funds under management above are unit trust, mutual funds and similar types of retail fund management arrangements. These are unrelated to insurance products that are classified as 'investment contracts' under IFRS 4, although similar IFRS recognition and measurement principles apply to the acquisition costs and fees attaching to this type of business.
- (v) Investment flows for the half year exclude Eastspring Investments' money market funds gross inflows of £62,302 million (half year 2015: inflows of £45,072 million) and net inflows of £656 million (half year 2015: net inflows of £609 million).
- (vi) New business and market gross inflows and redemptions have been translated at an average exchange rate for the period applicable. Funds under management at points in time are translated at the exchange rate applicable to those dates.

