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Description of EEV basis reporting

The EEV basis results have been prepared in accordance with the EEV Principles issued by the European Insurance CFO Forum in 2016. All results are stated net of tax and converted using actual exchange rates (AER) unless otherwise stated. AER are actual historical exchange rates for the relevant accounting period. Constant exchange rate (CER) results are calculated by translating prior year results using current period foreign currency exchange rates, ie current period average rates for the income statements and current period closing rate for the balance sheet. Where appropriate, the EEV basis results include the effects of adoption of IFRS Standards.

The Directors are responsible for the preparation of the supplementary information in accordance with the EEV Principles. In preparing the EEV basis supplementary information, the Directors have satisfied themselves that the Group remains a going concern. Further information is provided in note A1 of the IFRS financial statements.

* The additional financial information is not covered by the KPMG LLP independent audit opinion.

European Embedded Value (EEV) Basis Results

BASIS OF PREPARATION

In broad terms, IFRS profit for long-term business reflects the aggregate of results on a traditional accounting basis. By contrast, EEV is a way of measuring the value of the in-force life insurance business. The value of future new business is excluded from the embedded value. The EEV Principles provide consistent definitions of the components of EEV, a framework for setting assumptions and an approach to the underlying methodology and disclosures. Results prepared under the EEV Principles represent the present value of the shareholders' interest in the post-tax future profits (on a local statutory basis) expected to arise from the current book of long-term business, after sufficient allowance has been made for the aggregate risks in the business. The shareholders' interest in the Group's long-term business is the sum of the shareholders' total net worth and the value of in-force business.

For the purposes of preparing EEV basis results, insurance joint ventures and associates are included at the Group's proportionate share of their embedded value and not at their market value. Asset management and other non-insurance subsidiaries, joint ventures and associates are included in the EEV basis results at the Group's proportionate share of IFRS basis shareholders' equity, with central Group debt shown on a market value basis.

Key features of the Group's EEV methodology include:

- Economic assumptions: The projected post-tax profits assume a level of future investment return and are discounted using a risk discount rate. Both the risk discount rate and the investment return assumptions are updated at each valuation date to reflect current market risk-free rates, such that changes in market risk-free rates impact all projected future cash flows. Risk-free rates, and hence investment return assumptions, are based on observable market data, with current market risk-free rates assumed to remain constant throughout the projection, with no trending or mean reversion to longer-term assumptions. Different products will be sensitive to different assumptions, for example, spread-based products or products with guarantees are likely to benefit disproportionately from higher assumed investment returns.
- Time value of financial options and guarantees: Explicit quantified allowances are made for the time value of financial options and guarantees (TVOG). The TVOG is determined by weighting the probability of outcomes across a large number of different economic scenarios, centred around current historically low risk-free interest rates, and is typically less applicable to health and protection business that generally contains more limited financial options or guarantees.
- Allowance for risk in the risk discount rates: Risk discount rates are set equal to the risk-free rate at the valuation date plus product-specific allowances for market and non-market risks. Risks that are explicitly captured elsewhere, such as via the TVOG, are not included in the risk discount rates. The allowance for market risk is based on a product-by-product assessment of the sensitivity of shareholder cash flows to varying market returns. Products with greater market exposure will have an appropriately higher risk discount rate, for example savings and unit-linked products will typically have a higher allowance for market risk compared to health and protection products due to the higher proportion of equity-type assets in the investment portfolio. Other product design and business features also affect the sensitivity of shareholder cash flows to market returns. For example, the construct of UK-style with-profits funds in some business units reduce the sensitivity of both policyholder and shareholder cash flows for participating products, and products where shareholder cash flows are based on a fixed charging structure (rather than charges that are sensitive to investment performance) typically attract a lower allowance for market risk. The allowance for non-market risk comprises a base Group-wide allowance of 50 basis points plus additional allowances for emerging market risk where appropriate. At 31 December 2020 the total allowance for non-market risk in Asia is equivalent to a \$(3.2) billion reduction, or around (7) per cent of the Asia embedded value.

EEV RESULTS HIGHLIGHTS

	C		Change comp %	pared to pr (CER)	ior year	Change comp %	ior year		
	Group			Group			Group		
	excluding		Group	excluding		Group	excluding		Group
	US	US	total	US	US	total	US	US	total
	note (iii)	note (iii)	note (iii)						
New business profit	2,201	601	2,802	(38)%	(32)%	(37)%	(38)%	(32)%	(36)%
Annual premium equivalent (APE)	3,696	1,923	5,619	(28)%	(13)%	(24)%	(28)%	(13)%	(24)%
Present value of new business premiums (PVNBP)	21,587	19,229	40,816	(26)%	(14)%	(21)%	(26)%	(14)%	(21)%
New business margin (APE) (%)	60%	31%	50%						
	•••	• • • •	0070						
EEV operating profit ^{note (i)}	3,376	1,844	5,220	(34)%	4%	(24)%	(34)%	4%	(24)%
EEV operating profit, net of non-controlling									
interests ^{note (i)}	3,366	1,721	5,087	(34)%	(3)%	(26)%	(34)%	(3)%	(26)%
Operating return on average EEV shareholders'	,	,	· · ·						
equity, net of non-controlling interests (%)	8%	12%	9%						
	070	. = / 0	070						
Operating free surplus generated ^{note (ii)}	1,895	1,109	3,004	8%	(1)%	4%	7%	(1)%	4%
	.,	.,	-,		(),			(1).5	
Closing EEV shareholders' equity, net of non-									
controlling interests	41,926	12,081	54,007				9%	(26)%	(1)%
5	41,920	12,001	54,007				570	(20)/0	(1)/0
Closing EEV shareholders' equity, net of non-	1 6074	4624	2 0704				00/	(26)0/	(2)0/
controlling interests per share (in cents)	1,607¢	463¢	2,070¢				9%	(26)%	(2)%
Notes									

(i) Group excluding US represents the Group EEV operating profit (which is stated after central expenditure, restructuring and IFRS 17 implementation costs) after deducting amounts attributable to the US.

(ii) Long-term and asset management businesses only, before restructuring, IFRS 17 implementation costs, centrally incurred costs and eliminations (as described in note 5).

(iii) Segment results are attributed to the shareholders of the Group before deducting the amount attributable to non-controlling interests. This presentation is applied consistently throughout the document.

MOVEMENT IN GROUP EEV SHAREHOLDERS' EQUITY

			202	0 \$m		2019 \$m
	Note	Asia	US	Other note 5	Group total	Group total
Continuing operations:						
New business profit	1	2,201	601		2,802	4,405
Profit from in-force long-term business	2	1,933	1,273		3,206	3,240
Long-term business		4,134	1,874		6,008	7,645
Asset management		253	6		259	275
Operating profit from long-term and asset management businesses Other income and expenditure		4,387 -	1,880 -	(858)	6,267 (858)	7,920 (923)
Operating profit (loss) before restructuring and IFRS 17 implementation costs Restructuring and IFRS 17 implementation costs	S	4,387 (88)	1,880 (36)	(858) (65)	5,409 (189)	6,997 (92)
Operating profit (loss) for the year		4,299	1,844	(923)	5,220	6,905
Short-term fluctuations in investment returns	2	1,909	(230)	28	1,707	3,254
Effect of changes in economic assumptions	2	(996)	(5,054)	-	(6,050)	(1,868)
Impact of 2019 NAIC reform and related changes in the US ^{note (i)}		-	-	-	-	(3,457)
Loss attaching to corporate transactions	2	(91)	(471)	(30)	(592)	(207)
Mark-to-market value movements on core structural borrowings	6	-	(5)	(247)	(252)	(466)
Non-operating profit (loss)		822	(5,760)	(249)	(5,187)	(2,744)
Profit (loss) for the year from continuing operations		5,121	(3,916)	(1,172)	33	4,161
Loss for the year from discontinued operations ^{note (ii)}			-	-	<u> </u>	(4,797)
Profit (loss) for the year		5,121	(3,916)	(1,172)	33	(636)
Non-controlling interests share of profit		(11)	130	1	120	(9)
Profit (loss) for the year attributable to equity holders of the Company		5,110	(3,786)	(1,171)	153	(645)
Foreign exchange movements on operations		561	-	2	563	666
Intra-group dividends and investment in operations ^{note (iii)}		(741)	-	741	-	-
External dividends		-	-	(814)	(814)	(1,634)
Mark-to-market value movements on US assets backing net worth Other movements		- 76	552 111	- (207)	552 (20)	206 95
Athene equity investment ^{note (iv)}		/0	(1,112)	(207)	(20) (1,112)	95
Non-controlling interests share of other equity items			(1,112)		(1,112)	
Demerger dividend in specie of M&G plc ^{note (ii)}		-	(20)	-	(20)	(7,379)
Net increase (decrease) in shareholders' equity		5,006	(4,261)	(1,449)	(704)	(8,691)
Shareholders' equity at beginning of year		39,235	16,342	(866)	54,711	63,402
Shareholders' equity at end of year		44,241	12,081	(2,315)	54,007	54,711
Contribution to Group EEV:						
At end of year:						
Long-term business	2	42,808	12,076	-	54,884	54,179
Asset management and other	5	635	5	(2,338)	(1,698)	(290)
Goodwill attributable to equity holders EEV shareholders' equity (\$ million)		<u>798</u> 44.241	12 091	(2.245)	<u>821</u>	822
EEV shareholders' equity per share (in cents) ^{note (v)}		/	12,081	(2,315)	54,007	54,711
EEV shareholders' equity per share (in cents) are (in		1,696¢	463¢	(89)¢	2,070¢	2,103¢
At beginning of year:						
Long-term business	2	37,843	16,336	-	54,179	64,174
Asset management and other	5	596	6	(892)	(290)	(2,874)
Goodwill attributable to equity holders		796	-	26	822	2,102
EEV shareholders' equity (\$ million)		39,235	16,342	(866)	54,711	63,402
EEV shareholders' equity per share (in cents) ^{note (v)}		1,508¢	628¢	(33)¢	2,103¢	2,445¢
EEV basis basic earnings per share ^{note (v)}			20	20 Not of tox		2019
			Non-	Net of tax and non-	Basic	Basic
			controlling		earnings	earnings
		Net of tax	interests	interests	per share	per share
		\$m	\$m	\$m	cents	cents
				ψill	301113	
Based on operating profit from continuing operations after non-controlling in	terests		(133)	5,087	195.9¢	266.6¢
Based on profit for the year attributable to equity holders of the Company:	terests	5,220	(133)			
	terests			5,087 153	195.9¢ 5.9¢	266.6¢ 160.5¢ (185.4)¢

Notes

- (i) The \$(3,457) million impact of NAIC reform and other related changes in the US in full year 2019 related to the implementation of the National Association of Insurance Commissioners' (NAIC) changes to the US statutory reserve and capital framework for variable annuities, early-adopted by Jackson at 31 December 2019. As part of the implementation of these changes, enhancements were made to the model used to allow for hedging within US statutory reporting, which were subsequently utilised within EEV to update the allowance for the long-term cost of hedging under EEV economic assumptions, alongside a number of other changes following the NAIC reform with the objective of bringing the EEV free surplus more in line with the US statutory basis of reporting. Subsequent changes to the approach to the long-term cost of hedging allowance for EEV reporting in 2020 are included within economic assumption changes.
- (ii) Discontinued operations for 2019 related to the UK and Europe operations (M&G plc) that were demerged from the Group in October 2019. The demerger dividend in specie of M&G plc was recorded at the fair value of M&G plc at the date of the demerger on 18 October 2019. The difference between the fair value and its carrying value, together with profit earned up to the date of the demerger were recorded as loss for the year from the discontinued UK and Europe operations in 2019.
- (iii) Intra-group dividends represent dividends that have been declared in the year. Investment in operations reflects movements in share capital.
 (iv) In 2020, the \$(1,112) million relates to the equity investment by Athene into the US business as described in note D1.2 of the IFRS basis results.
- (v) Based on the number of issued shares at 31 December 2020 of 2,609 million shares (31 December 2019: 2,601 million shares), and weighted average number of issued shares of 2,597 million shares in 2020 (2019: 2,587 million shares).

MOVEMENT IN GROUP FREE SURPLUS

For long-term business, free surplus is the excess of the regulatory basis net assets for EEV reporting purposes (total net worth) over the capital required to support the covered business. Where appropriate, adjustments are made to total net worth so that backing assets are included at market value, rather than at cost, to comply with the EEV Principles. In the Group's Asia and US operations, assets deemed to be inadmissible on a local regulatory basis are generally included in net worth, with the exception of deferred tax assets in the US that are inadmissible under the local regulatory basis, which have been included in the value of inforce business (VIF) within the Group's EEV results.

Free surplus for asset management and other non-insurance operations (including the Group's central operations and Africa operations) is taken to be IFRS basis shareholders' equity, net of goodwill attributable to equity holders, with central Group debt shown on a market value basis and subordinated debt recorded as free surplus to the extent that it is classified as available capital under the Group's capital regime. A reconciliation of EEV free surplus to the Group's Local Capital Summation Method (LCSM) surplus over Group minimum capital requirements is set out in note I(i) of the additional financial information.

			2020 \$m			2019 \$m
-			Total			<u> </u>
			insurance			
			and asset		Group	Group
	Asia	US	management	Other	total	total
Enclosed the sector from the former baselines.	4 070	4 4 4 4	0.000	note 5	0.000	0.001
Expected transfer from in-force business	1,878	1,114	2,992		2,992	3,081
Expected return on existing free surplus	101 222	25 156	126 378		126 378	141
Changes in operating assumptions and experience variances						558
Operating free surplus generated from in-force long-term business ^{note (i)}	2,201	1,295	3,496		3,496	3,780
Investment in new business ^{note (ii)}	(559)	(192)	(751)		(751)	(1,158)
Long-term business	1,642	1,103	2,745		2,745	2,622
Asset management	253	6	259		259	275
Operating free surplus generated from long-term and asset	4 005	4 4 0 0	0.004		0.004	0.007
management businesses	1,895	1,109	3,004	(050)	3,004	2,897
Other income and expenditure	-	-	-	(858)	(858)	(923)
Operating free surplus generated before restructuring and IFRS 17	4 995			(050)		4 07 4
implementation costs	1,895	1,109	3,004	(858)	2,146	1,974
Restructuring and IFRS 17 implementation costs	(82)	(36)	(118)	(65)	(183)	(92)
Operating free surplus generated	1,813	1,073	2,886	(923)	1,963	1,882
Non-operating free surplus generated ^{note (iii)}	444	(2,046)	(1,602)	(128)	(1,730)	(1,016)
Free surplus generated from continuing operations	2,257	(973)	1,284	(1,051)	233	866
Free surplus generated from discontinued operations	-	-			-	2,512
Free surplus generated	2,257	(973)	1,284	(1,051)	233	3,378
Non-controlling interests share of profit	(11)	245	234	1	235	(9)
Free surplus generated attributable to equity holders of the						
Company	2,246	(728)	1,518	(1,050)	468	3,369
Net cash flows paid to parent company ^{note (iv)}	(716)	-	(716)	716	-	-
External dividends	-	-	-	(814)	(814)	(1,634)
Demerger dividend in specie of M&G plc	-	-	•	_	-	(7,379)
Foreign exchange movements on operations	131	-	131	5	136	267
Mark-to-market value movements on US assets backing net worth	-	552	552	-	552	206
Other movements and timing differences	49	111	160	(182)	(22)	(252)
Athene equity investment	-	63	63	-	63	-
Non-controlling interests share of other equity items	-	(26)	(26)	<u> </u>	(26)	-
Net movement in free surplus	1,710	(28)	1,682	(1,325)	357	(5,423)
Balance at beginning of year	4,220	1,777	5,997	3,739	9,736	15,159
Balance at end of year	5,930	1,749	7,679	2,414	10,093	9,736
Representing:						
Free surplus excluding distribution rights and other intangibles	5,023	1,731	6,754	(686)	6,068	6,604
Distribution rights and other intangibles	907	18	925	3,100	4,025	3,132
	5,930	1,749	7,679	2,414	10,093	9,736
Contribution to Group free surplus:						
At end of year:						
Long-term business ^{note 2}	5,295	1,744	7,039	-	7,039	5,395
Asset management and other	635	5	640	2,414	3,054	4,341
Free surplus	5.930	1.749	7.679	2.414	10.093	9,736
100 041,0140	0,000	1,145	1,019	-, - ,	10,000	5,750
At beginning of year:						
Long-term business ^{note 2}	3,624	1,771	5,395	-	5,395	9,587
Asset management and other	596	6	602	3,739	4,341	5,572
Free surplus	4,220	1,777	5,997	3,739	9,736	15,159

Notes

(i) US in-force free surplus generation in 2019 included a \$355 million benefit from the release of incremental reserves in the first half of 2019 following the integration of the John Hancock business.

(ii) Free surplus invested in new business primarily represents acquisition costs and amounts set aside for required capital.

(iii) Asia non-operating free surplus generation in 2020 includes a reinsurance commission of \$770m received as part of a reinsurance transaction undertaken by our business in Hong Kong as described in note D1 of the IFRS financial statements. Non-operating free surplus generated for other operations represents the post-tax IFRS basis short-term fluctuations in investment returns for other entities, as shown in Note B1.2 of the IFRS Financial Statements, along with mark-to-market value movements on core structural borrowings (unless classified as available capital under the Group's capital regime).

(iv) Net cash flows to parent company for Asia operations reflect the flows as included in the holding company cash flow at transaction rates. The difference to the intra-group dividends and investment in operations in the movement in EEV shareholders' equity primarily relates to intragroup loans, foreign exchange and other non-cash items.

NOTES ON THE EEV BASIS RESULTS

1 Analysis of new business profit and EEV for long-term business operations

			2020	\$m		
	New business profit (NBP) note (i)	Annual premium equivalent (APE)	Present value of new business premiums (PVNBP)	New business margin (APE)	New business margin (PVNBP)	Closing EEV shareholders' equity note (ii)
Hong Kong	787	758	5,095	104%	15%	20,156
China JV	269	582	2,705	46%	10%	2,798
Indonesia	155	267	1,154	58%	13%	2,630
Malaysia	209	346	2,023	60%	10%	4,142
Singapore	341	610	5,354	56%	6%	8,160
Other	440	1,133	5,256	39%	8%	4,922
Total Asia insurance	2,201	3,696	21,587	60%	10%	42,808
US insurance	601	1,923	19,229	31%	3%	12,076
Total long-term business	2,802	5,619	40,816	50%	7%	54,884

			2019 (AB	ER) \$m		
	New business profit (NBP) note (i)	Annual premium equivalent (APE)	Present value of new business premiums (PVNBP)	New business margin (APE)	New business margin (PVNBP)	Closing EEV shareholders' equity note (ii)
Hong Kong	2,042	2,016	12,815	101%	16%	18,255
China JV	262	590	2,586	44%	10%	2,180
Indonesia	227	390	1,668	58%	14%	2,737
Malaysia	210	355	2,090	59%	10%	3,535
Singapore	387	660	4,711	59%	8%	7,337
Other	394	1,150	5,374	34%	7%	3,799
Total Asia insurance	3,522	5,161	29,244	68%	12%	37,843
US insurance	883	2,223	22,231	40%	4%	16,336
Total long-term business	4,405	7,384	51,475	60%	9%	54,179

			2019 (CE	ER) \$m		
	New business profit (NBP) note (i)	Annual premium equivalent (APE)	Present value of new business premiums (PVNBP)	New business margin (APE)	New business margin (PVNBP)	Closing EEV shareholders' equity note (ii)
Hong Kong	2,063	2,037	12,946	101%	16%	18,344
China JV	262	590	2,588	44%	10%	2,322
Indonesia	220	379	1,622	58%	14%	2,704
Malaysia	207	349	2,061	59%	10%	3,594
Singapore	383	653	4,659	59%	8%	7,464
Other	398	1,160	5,402	34%	7%	3,829
Total Asia insurance	3,533	5,168	29,278	68%	12%	38,257
US insurance	883	2,223	22,231	40%	4%	16,336
Total long-term business	4,416	7,391	51,509	60%	9%	54,593

Notes (i) The movement in new business profit is analysed as follows:

	Asia \$m	US \$m	Group \$m
2019 new business profit	3,522	883	4,405
Foreign exchange movement	11	-	11
Effect of changes in interest rates and other economic assumptions	2	(283)	(281)
Sales volume	(986)	(73)	(1,059)
Business mix, product mix and other items	(348)	74	(274)
2020 new business profit	2,201	601	2,802

(ii) Long-term business only, excluding goodwill attributable to equity holders.

2 Analysis of movement in EEV for long-term business operations

			2020 \$m			2019 \$m
	F	De mine d	Net	Value of	Each a data d	Each a data d
	Free surplus	Required capital	Net worth	un-force business	Embedded value	Embedded value
Total long-term business	00.0.00					
Balance at beginning of year from continuing operations	5,395	6,891	12,286	41,893	54,179	49,643
New business contribution ^{note 1}	(751)	563	(188)	2,990	2,802	4,405
Existing business – transfer to net worth	2,992	(716)	2,276	(2,276)	-	-
Expected return on existing business ^{note (ii)} Changes in operating assumptions and experience variances ^{note (iii)}	126 378	186 3	312 381	1,646 867	1,958 1,248	2,270 970
Operating profit before restructuring and IFRS 17 implementation costs	2,745	36	2,781	3,227	6,008	7,645
Restructuring and IFRS 17 implementation costs	(92)	-	(92)	(6)	(98)	(5)
Operating profit	2,653	36	2,689	3,221	5,910	7,640
Non-operating (loss) profit ^{note (iv)}	(1,602)	320	(1,282)	(3,656)	(4,938)	(1,840)
Profit (loss) for the year	1,051	356	1,407	(435)	972	5,800
Non-controlling interests share of profit	245	124	369	(239)	130	(1)
Profit (loss) for the year attributable to equity holders of the						
Company	1,296	480	1,776	(674)	1,102	5,799
Foreign exchange movements	116	15	131	415	546	369
Intra-group dividends and investment in operations	(582)	-	(582)	-	(582)	(1,633)
Mark-to-market value movements on US assets backing net worth	552	-	552	-	552	206
Other movements ^{note (v)}	225	-	225	-	225	(205)
Athene equity investment	63 (26)	(548)	(485)	(627)	(1,112)	-
Non-controlling interests share of other equity items Balance at end of year ^{note (i)}	(26)		(26)	41 007	(26)	<u> </u>
	7,039	6,838	13,877	41,007	54,884	54,179
Asia long-term business						
Balance at beginning of year	3,624	3,182	6,806	31,037	37,843	30,985
New business contribution ^{note 1}	(559)	181	(378)	2,579	2,201	3,522
Existing business – transfer to net worth	1,878	(107)	1,771	(1,771)	_,	
Expected return on existing business ^{note (ii)}	101	62	163	1,238	1,401	1,542
Changes in operating assumptions and experience variances ^{note (iii)}	222	(38)	184	348	532	824
Operating profit before restructuring and IFRS 17 implementation costs	1,642	98	1,740	2,394	4,134	5,888
Restructuring and IFRS 17 implementation costs	(63)	-	(63)	(6)	(69)	
Operating profit	1,579	98	1,677	2,388	4,065	5,888
Non-operating profit ^{note (iv)}	444	150	594	228	822	1,962
Profit for the year	2,023	248	2,271	2,616	4,887	7,850
Non-controlling interests share of profit	-	-	-	-	-	(1)
Profit for the year attributable to equity holders of the Company	2,023	248	2,271	2,616	4,887	7,849
Foreign exchange movements	116	15	131	415	546	369
Intra-group dividends and investment in operations	(582)	-	(582)	-	(582)	(1,108)
Other movements ^{note (v)}	5 205	-	<u> </u>	-	114	(252)
Balance at end of year ^{note (i)}	5,295	3,445	8,740	34,068	42,808	37,843
US long-term business						
Balance at beginning of year	1,771	3,709	5,480	10,856	16,336	18,658
New business contribution ^{note 1}	(192)	382	190	411	601	883
Existing business – transfer to net worth	1,114	(609)	505	(505)	-	-
Expected return on existing business ^{note (ii)}	25	`12 4	149	`40 8	557	728
Changes in operating assumptions and experience variances ^{note (iii)}	156	41	197	519	716	146
Operating profit before restructuring and IFRS 17 implementation costs	1,103	(62)	1,041	833	1,874	1,757
Restructuring and IFRS 17 implementation costs	(29)	-	(29)	-	(29)	(5)
Operating profit	1,074	(62)	1,012	833	1,845	1,752
Non-operating (loss) profit ^{note (iv)}	(2,046)	170	(1,876)	(3,884)	(5,760)	(3,802)
(Loss) profit for the year	(972)	108	(864)	(3,051)	(3,915)	(2,050)
Non-controlling interests share of profit	245	124	369	(239)	130	
(Loss) profit for the year attributable to equity holders of the	.				·- · · -	
Company	(727)	232	(495)	(3,290)	(3,785)	(2,050)
Intra-group dividends and investment in operations	-	-		-		(525)
Mark-to-market value movements on US assets backing net worth	552	-	552	-	552	206
Other movements ^{note (v)}	111	-	111	-	111	47
Athene equity investment	63 (26)	(548)	(485)	(627)	(1,112)	-
Non-controlling interests share of other equity items Balance at end of year ^{note (i)}	<u>(26)</u> 1,744	2 202	(26)	- - 020	(26)	16,336
Dalance al enu or year and	1,744	3,393	5,137	6,939	12,076	10,330

Notes

The total embedded value for long-term business operations, excluding goodwill attributable to equity holders, can be summarised as follows:

	31 [Dec 2020 \$	m	31 D	31 Dec 2019 \$m			
-	Asia	US	Group total	Asia	US	Group total		
Value of in-force business before deduction of cost of								
capital and time value of options and guarantees	36,729	7,416	44,145	32,396	11,417	43,813		
Cost of capital	(749)	(457)	(1,206)	(866)	(370)	(1,236)		
Time value of options and guarantees*	(1,912)	(20)	(1,932)	(493)	(191)	(684)		
Net value of in-force business	34,068	6,939	41,007	31,037	10,856	41,893		
Free surplus	5,295	1,744	7,039	3,624	1,771	5,395		
Required capital	3,445	3,393	6,838	3,182	3,709	6,891		
Net worth	8,740	5,137	13,877	6,806	5,480	12,286		
Embedded value	42,808	12,076	54,884	37,843	16,336	54,179		

The time value of options and guarantees (TVOG) arises from the variability of economic outcomes in the future and is, where appropriate, calculated as the difference between an average outcome across a range of economic scenarios, calibrated around a central scenario, and the outcome from the central economic scenario, as described in note 8(i)(d). The TVOG and the outcome from the central scenario are linked; as the central scenario is updated for market conditions and the outcome reflects more or less of the guaranteed benefit payouts and associated product charges, there will be consequential changes to the TVOG. At 31 December 2020 the TVOG for Asia operations is \$(1,912) million, with the substantial majority arising in Hong Kong, reflecting the variability of guaranteed benefit payouts across the range of economic scenarios around current low interest rates. The TVOG represents some of the market risk for the key products in Hong Kong. As this market risk is explicitly allowed for via the TVOG, no further adjustment is made to allow for this within the EEV risk discount rate, as described in note 8(i)(h), leading to a lower risk discount rate. The magnitude of the TVOG for Asia operations at 31 December 2020 would be approximately equivalent to a 30 basis point increase in the Asia weighted average risk discount rate.

The expected return on existing business reflects the effect of changes in economic and operating assumptions in the current year, as (ii) described in note 8(ii)(c). The movement in this amount compared to the prior year is analysed as follows:

	Asia \$m	US \$m	Group total \$m
2019 expected return on existing business	1,542	728	2,270
Foreign exchange movement	(8)	-	(8)
Effect of changes in interest rates and other economic assumptions	(312)	(114)	(426)
Growth in opening value of in-force business and other items	179	(57)	122
2020 expected return on existing business	1,401	557	1,958

(iii) The effect of changes in operating assumptions of \$390 million (2019: \$539 million) in Asia principally reflects the benefit of medical pricing actions, the introduction of a more simplified framework for policyholder charges for guarantees in Hong Kong and the beneficial effect on the effective tax rate for Indonesia from changes to local tax legislation in the first half of 2020, together with the outcome of the regular review of persistency, claims and expenses. Experience variances and other items of \$142 million (2019: \$285 million) has been driven by positive mortality and morbidity experience in a number of local business units. In the US, the effect of changes in operating assumptions, experience variances and other items of \$716 million (2019: \$146 million) mainly includes the effect of positive persistency experience and assumption changes and the regular amortisation of interest-related gains and losses.

(iv) The EEV non-operating profit (loss), can be summarised as follows:

r_{j} The LL v non-operating profit (loss), can be summarised as follows.						
	31 Dec 2020 \$m			31 Dec 2019 \$m		
	Asia	US G	roup total	Asia	US G	roup total
Short-term fluctuations in investment returns ^{note (a)}	1,909	(230)	1,679	2,451	876	3,327
Effect of changes in economic assumptions ^{note (b)}	(996)	(5,054)	(6,050)	(667)	(1,201)	(1,868)
Impact of 2019 NAIC reform and related changes in the US	-	-	-	-	(3,457)	(3,457)
Mark-to-market value movements on core structural borrowings ^{note 6(iii)}	-	(5)	(5)	-	(18)	(18)
Loss (gain) attaching to corporate transactions ^{note (c)}	(91)	(471)	(562)	178	(2)	176
Non-operating profit (loss)	822	(5,760)	(4,938)	1,962	(3,802)	(1,840)

(a) The credit of \$1,909 million in Asia for short-term fluctuations in investment returns mainly reflects higher than expected bond and equity returns, particularly

 in Hong Kong. In the US, the charge of \$(230) million mainly reflects losses arising from changes to the asset portfolio following the Athene transaction.
 (b) The charge for economic assumption changes of \$(996) million in Asia is mainly driven by Hong Kong and primarily arises from movements in long-term interest rates, resulting in lower assumed fund earned rates that impact projected future cash flows across the majority of local business units, partially offset by lower risk discount rates. This impact includes a benefit from a change to the calculation of the valuation interest rate used to value long-term insurance liabilities in Hong Kong and reflects the impact of changes to longer-term views on economic assumptions as described in note 9(i). In the US, the charge of \$(5,054) million largely reflects the effect of lower interest rates in the year, with the US 10 year Treasury falling by 99 basis points over the course of 2020. Lower interest rates, have the effect of decreasing future separate account return and hence lowering future projected fee income, increasing future projected hedging costs and reducing future reinvestment rates. These effects have been partially offset by lower risk discount rates and the increase in the US equity risk premium as described in note 9(i). Further, the US charge includes the impact of refinements that Jackson implemented to its EEV hedge modelling as a result of the changes made for its statutory reserves and capital that reduced EEV by \$795 million as at 1 January 2020. (c) The impact of corporate transactions in the year is as follows:

	2020 \$m	2019 \$m
Loss on reinsurance of Jackson's in-force fixed and fixed indexed annuity portfolio*	(457)	-
Gain on disposals [†]	-	178
Other transactions [‡]	(105)	(2)
Total	(562)	176

In June 2020, the Group announced the reinsurance of substantially all of Jackson's in-force portfolio of fixed and fixed indexed annuity business to Athene Life Re Ltd. Further details are included in note D1.1 of the IFRS basis results. The effect on the EEV position largely reflects the loss of future profits recorded in the value of in-force business as a result of the reinsurance and the loss of unrealised gains on assets passed to Athene, partly offset by the reinsurance commission received after deducting tax.

In 2019, the gain on disposals principally related to profits arising from a 4 per cent reduction in the Group's stake in its associate in India, ICICI Prudential t Life Insurance Company, and the disposal of Prudential Vietnam Finance Company Limited, a wholly-owned subsidiary that provides consumer finance.

In 2020, other transactions includes a loss of \$(91) million from the reinsurance transaction undertaken by our business in Hong Kong described in note D1.1 of the IFRS financial statements together with costs incurred by Jackson in relation to its proposed separation. Outside of the long-term business (and hence not included in the table above) central operations incurred \$30 million of costs associated with corporate transactions largely in relation to the proposed separation of Jackson.

Other movements include reserve movements in respect of share capital subscribed, share-based payments, treasury shares, intra-group (v) loans and other intra-group transfers between operations that have no overall effect on the Group's shareholders' equity.

3 Sensitivity of results for long-term business operations to alternative assumptions

(i) Sensitivity analysis – economic assumptions

The tables below show the sensitivity of the embedded value and the new business profit for long-term business operations to:

- 1 per cent and 2 per cent (for 2020 only) increases in interest rates, including consequential changes in assumed investment returns for all asset classes, market values of fixed interest assets and local statutory reserves and capital requirements and risk discount rates (but excluding changes in the allowance for market risk);
- 0.5 per cent decrease in interest rates, including consequential changes in assumed investment returns for all asset classes, market values of fixed interest assets and local statutory reserves and capital requirements and risk discount rates (but excluding changes in the allowance for market risk);
- 1 per cent rise in equity and property yields;
- 20 per cent fall (10 per cent fall for 2019) in the market value of equity and property assets (embedded value only);
- 1 per cent and 2 per cent (for 2020 only) increases in the risk discount rates. The main driver for changes in the risk discount rates from year to year is changes in the risk-free rates, the impact of which is expected to be broadly offset by a corresponding change in assumed investment returns, the effect of which is not included in these sensitivities. The impact of higher investment returns can be approximated as the difference between the sensitivity to increases in interest rates and the sensitivity to increases in risk discount rates; and
- The Group minimum capital requirements under the LCSM in contrast to EEV basis required capital (embedded value only).

The sensitivities shown below are for the impact of instantaneous and permanent changes (with no trending or mean reversion) on the embedded value of long-term business operations and include the combined effect on the value of in-force business and net assets (including derivatives) held at the valuation dates indicated. The sensitivities reflect the consequential impacts from market movements at the valuation date. The results only allow for limited management actions such as changes to future policyholder bonuses where applicable. If such economic conditions persisted, the financial impacts may differ to the instantaneous impacts shown below. In this case management could also take additional actions to help mitigate the impact of these stresses. No change in the assets held at the valuation date is assumed when calculating sensitivities. The sensitivity impacts are expected to be non-linear, to aid understanding of this non linearity, impacts of both a 1% and 2% increase to interest rates and risk discount rates are shown.

If the changes in assumptions shown in the sensitivities were to occur, the effects shown below would be recorded within two components of the profit analysis for the following year, namely the effect of changes in economic assumptions and short-term fluctuations in investment returns. In addition, for changes in interest rates, the effect shown below for the US (Jackson) would also be recorded within mark-to-market value movements on Jackson assets backing surplus and required capital, which are taken directly to shareholders' equity. In addition to the sensitivity effects shown below, the other components of the profit for the following year would be calculated by reference to the altered assumptions, for example new business profit and expected return on existing business, together with the effect of other changes such as altered corporate bond spreads.

New business profit from long-term business

	2020 \$m			2019 \$m		
			Group			Group
	Asia	US	total	Asia	US	total
New business profit	2,201	601	2,802	3,522	883	4,405
Interest rates and consequential effects – 2% increase	107	669	776	n/a	n/a	n/a
Interest rates and consequential effects – 1% increase	78	375	453	(46)	207	161
Interest rates and consequential effects – 0.5% decrease	(98)	(149)	(247)	(121)	(123)	(244)
Equity/property yields – 1% rise	140	88	228	210	70	280
Risk discount rates – 2% increase	(626)	112	(514)	n/a	n/a	n/a
Risk discount rates – 1% increase	(372)	33	(339)	(715)	(22)	(737)

Embedded value of long-term business

	31 Dec 2020 \$m			31 D	ec 2019 \$m	\$m
			Group			Group
	Asia	US	total	Asia	US	total
Embedded value	42,808	12,076	54,884	37,843	16,336	54,179
Interest rates and consequential effects – 2% increase	(3,589)	2,275	(1,314)	n/a	n/a	n/a
Interest rates and consequential effects – 1% increase	(1,429)	1,667	238	(1,408)	798	(610)
Interest rates and consequential effects – 0.5% decrease	177	(162)	15	(28)	(686)	(714)
Equity/property yields – 1% rise	1,949	506	2,455	1,758	556	2,314
Equity/property market values – 10% fall	n/a	n/a	n/a	(810)	(1,205)	(2,015)
Equity/property market values – 20% fall	(1,912)	(2,173)	(4,085)	n/a	n/a	n/a
Risk discount rates – 2% increase	(9,225)	(568)	(9,793)	n/a	n/a	n/a
Risk discount rates – 1% increase	(5,286)	(286)	(5,572)	(5,263)	(509)	(5,772)
Group minimum capital requirements	150	275	425	175	221	396

Overall, the directional movements in the sensitivities from 31 December 2019 to 31 December 2020 reflect the generally lower government bond yields and higher equity markets at 31 December 2020, and, in the case of the US, the actual hedging portfolio in place at both valuation dates, which varies from year to year due to the nature of Jackson's dynamic hedging programme.

Asia insurance operations

Interest rate sensitivities for the Asia long-term business embedded value show broadly similar movements at 31 December 2020 as compared to 31 December 2019. These interest rate sensitivities illustrate the impact of using different economic assumptions within our EEV framework. For a 1 per cent increase in assumed interest rates the \$(1,429) million negative effect comprises a \$(5,286) million negative impact of increasing the risk discount rate by 1 per cent, partially offset by a \$3,857 million benefit from assuming 1 per cent higher investment returns. Similarly, for a 2 per cent increase in assumed interest rates the \$(3,589) million negative effect comprises a \$(9,225) million negative impact of increasing the risk discount rates by 2 per cent, partially offset by a \$5,636 million benefit from higher assumed investment returns. Finally, for a 0.5 per cent decrease in assumed interest rates there would be a \$177 million positive effect from the 0.5 per cent reduction in assumed discount rates being partially offset by lower assumed investment returns. For a 1 per cent increase in the assumed Asia equity risk premium and property risk premium the EEV would increase by \$1,949 million.

In order to illustrate the impact on EEV of varying specific economic assumptions, all other assumptions are held constant in the sensitivities above, and therefore the actual changes in EEV were these economic effects to materialise may differ from the sensitivities shown. For example, if interest rates decreased by 0.5 per cent, as well as changes to the risk free rate, market risk allowances would likely also be increased within the risk discount rate, leading to a larger increase in the risk discount rate than 0.5 per cent, and a larger reduction in EEV of \$(1,264) million (compared to the \$177 million benefit shown above from reducing both the earned rate and discount rate by 0.5 per cent). However, if interest rates actually increased by 1 per cent the likely change in EEV would not materially differ to the impact of the 1 per cent interest rate sensitivity shown above.

US insurance operations

The interest rate and equity/property market values sensitivity movements provided in the table above are at a point in time and reflect the hedging programme in place on the valuation date, while the actual impact on financial results would vary contingent upon a number of factors.

The sensitivity of the US long-term business embedded value to interest rates is driven by the change in assumed investment returns, and the consequential impact on future fee income and projected benefit and dynamic hedging costs, offset by the impact of market value movements on derivatives and other assets. At the lower interest rates at 31 December 2020, the positive impact from higher assumed investment returns from a 1 per cent increase in risk-free rates is higher than at 31 December 2019. For a 0.5 per cent decrease in interest rates the increase in expected benefit costs is offset by the hedging protection held to manage such a risk to a greater extent than in 2019.

The equity/property market values sensitivity is driven by a negative effect from lower future fee income and increased projected benefit and dynamic hedging costs on variable annuity business, partially offset by market value movements on equity derivatives held at the valuation date.

(ii) Sensitivity analysis - non-economic assumptions

The tables below show the sensitivity of the embedded value and the new business profit for long-term business operations to:

- 10 per cent proportionate decrease in maintenance expenses (for example, a 10 per cent sensitivity on a base assumption of \$10 per annum would represent an expense assumption of \$9 per annum);
- 10 per cent proportionate decrease in lapse rates (for example, a 10 per cent sensitivity on a base assumption of 5.0 per cent would represent a lapse rate of 4.5 per cent per annum); and
- 5 per cent proportionate decrease in base mortality (ie increased longevity) and morbidity rates.

New business profit from long-term business

	2020 \$m				2019 \$m	
	Asia	US	Group total	Asia	US	Group total
New business profit	2,201	601	2,802	3,522	883	4,405
Maintenance expenses – 10% decrease	47	18	65	67	15	82
Lapse rates – 10% decrease	156	(4)	152	211	24	235
Mortality and morbidity – 5% decrease	106	(12)	94	116	(2)	114

Embedded value of long-term business

	31 C	31 Dec 2020 \$m			ec 2019 \$m	1
	Asia	US	Group total	Asia	US	Group total
Embedded value	42,808	12,076	54,884	37,843	16,336	54,179
Maintenance expenses – 10% decrease	476	193	669	411	200	611
Lapse rates – 10% decrease	1,774	251	2,025	1,459	624	2,083
Mortality and morbidity – 5% decrease	1,689	(20)	1,669	1,323	94	1,417

4 Expected transfer of value of in-force business and required capital to free surplus for Asia long-term business operations on a discounted basis

The table below shows how the value of in-force business (VIF) and the associated required capital for Asia long-term business operations are projected as emerging into free surplus over future years. Cash flows are projected on a deterministic basis and are discounted at the appropriate risk discount rate. The modelled cash flows use the same methodology underpinning the Group's EEV reporting and so are subject to the same assumptions and sensitivities. The projected emergence of VIF and required capital into free surplus in 2021 will be the starting point for expected free surplus generation next year, after updating for operating and economic assumption changes. See note I(vi) of the additional financial information for further detail.

Post its separation from the Group, Jackson will no longer publish EEV results and so this section covers Asia only.

	Total expected	Expected period of conversion of future post-tax distributable earnings and required capital flows to free surplus at 31 Dec					
	emergence	1-5 years	6-10 years	11-15 years	16-20 years	21-40 years	40+ years
2020 (\$m)	38,594	9,112	6,932	5,511	4,234	9,193	3,612
(%)	100%	24%	18%	14%	11%	24%	9%
2019 (\$m)	34,295	8,561	6,335	4,394	3,398	7,715	3,892
(%)	100%	25%	18%	13%	10%	23%	11%

The required capital and value of in-force business for Asia long-term business operations can be reconciled to the total discounted emergence of future free surplus shown above as follows:

	31 Dec 2020 \$m	31 Dec 2019 \$m
Required capital ^{note 2}	3,445	3,182
Value of in-force business (VIF) ^{note 2}	34,068	31,037
Other items*	1,081	76
Asia long-term business operations	38,594	34,295

* 'Other items' represent the impact of the time value of options and guarantees and amounts incorporated into VIF where there is no definitive time frame for when the payments will be made or receipts received. These items are excluded from the expected free surplus generation profile above.

5 EEV basis results for other operations

EEV basis other income and expenditure represents the post-tax IFRS basis results for other operations (before restructuring and IFRS 17 implementation costs), together with an adjustment to deduct the unwind of expected margins on the internal management of the assets of the covered business, as shown in the table below. It includes interest costs on core structural borrowings, corporate expenditure for head office functions in London and Hong Kong that is not recharged/allocated to the insurance operations, and Africa operations.

In line with the EEV Principles, the allowance for the future cost of internal asset management services within the EEV basis results for long-term insurance operations excludes the projected future profits or losses generated by any non-insurance entities within the Prudential Group in providing those services (ie the EEV for long-term insurance operations assumes that the cost of internal asset management services will be that incurred by the Group as a whole, not the cost that will be borne by the insurance business). The results of the Group's asset management operations include the current period profit from the management of both internal and external funds, consistent with their presentation within the Group's IFRS basis reporting. An adjustment is accordingly made to Group EEV operating profit, within the EEV basis results for other operations, to deduct the expected profit anticipated to arise in the current period in the opening VIF from internal asset management services, such that Group EEV operating profit includes the actual profit earned in respect of the management of these assets.

Any costs incurred within the head office functions in London and Hong Kong that are attributable to the long-term insurance (covered) business are recharged/allocated to the insurance operations and recorded within the results for those operations. The assumed future expenses within the value of in-force business for long-term insurance operations allow for amounts expected to be recharged/allocated by the head office functions. Other costs that are not recharged/allocated to the insurance operations are shown as part of other income and expenditure for the current year, and are not included within the projection of future expenses for in-force insurance business.

	2020 \$m	2019 \$m
IFRS basis other income and expenditure*	(748)	(926)
Tax effects on IFRS basis results	(17)	82
Less: unwind of expected profit on internal management of the assets of the Asia long-term business	(68)	(56)
Less: unwind of expected profit on internal management of the assets of the US long-term business	(25)	(23)
EEV basis other income and expenditure	(858)	(923)
	1 - 1	

* As recorded in note B1.1 of the IFRS Financial Statements.

The EEV basis shareholders' equity for other operations is taken to be IFRS basis shareholders' equity, with central Group debt shown on a market value basis. Free surplus for other operations is taken to be IFRS basis shareholders' equity, net of goodwill attributable to equity holders, with central Group debt shown on a market value basis and subordinated debt recorded as free surplus to the extent that it is classified as available capital under the Group's capital regime. Shareholders' equity for other operations can be compared across metrics as shown in the table below.

(1,520)	(0.1.0)
(1,520)	(318)
(795)	(548)
(2,315)	(866)
4,752	4,631
(23)	(26)
2,414	3,739
	(2,315) 4,752 (23)

* As recorded in note C1 of the IFRS Financial Statements.

For asset managers and other operations (including the Group's central operations and Africa operations), EEV basis shareholders' equity and free surplus is identical to IFRS basis shareholders' equity, net of goodwill attributable to equity holders as applicable.

Net core structural borrowings of shareholder-financed businesses 6

	31 Dec 2020 \$m			31	Dec 2019 \$m	
	IFRS basis note (ii)	Mark-to -market value adjustment note (iii)	EEV basis at market value	IFRS basis note (ii)	Mark-to -market value adjustment note (iii)	EEV basis at market value
Holding company cash and short-term investments ^{note (i)} Central borrowings:	(1,463)	-	(1,463)	(2,207)	-	(2,207)
Subordinated debt	4,332	420	4,752	4,304	327	4,631
Senior debt	1,701	375	2,076	690	221	911
Bank loan	350	-	350	350	-	350
Total central borrowings	6,383	795	7,178	5,344	548	5,892
Total net central funds	4,920	795	5,715	3,137	548	3,685
Jackson Surplus Notes	250	90	340	250	85	335
Net core structural borrowings of shareholder-						
financed businesses	5,170	885	6,055	3,387	633	4,020

Notes

Holding company includes centrally managed group holding companies. As recorded in note C5.1 of the IFRS Financial Statements. (i)

(ii)

The movement in the value of core structural borrowings includes foreign exchange effects for pounds sterling denominated debts, which are (iii) included in 'Exchange movements on foreign operations'. The movement in the mark-to-market value adjustment can be analysed as follows:

	2020 \$m	2019 \$m
Mark-to-market value adjustment at beginning of year	633	233
Charge included in the income statement*	252	466
Movement on subordinated debt substituted to M&G plc and foreign exchange movements	-	(66)
Mark-to-market value adjustment at end of year	885	633
*Representing:		
Total central borrowings	247	448
Jackson Surplus Notes	5	18
Total	252	466

7 Comparison of EEV basis shareholders' equity with IFRS basis shareholders' equity

	31 Dec 2020 \$m	31 Dec 2019 \$m
Assets less liabilities before deduction of insurance funds	421,987	396,241
Less insurance funds ^{note (i)}		
Policyholder liabilities (net of reinsurers' share) and unallocated surplus of with-profits funds	(399,868)	(376,572)
Shareholders' accrued interest in the long-term business	33,129	35,234
-	(366,739)	(341,338)
Less non-controlling interests	(1,241)	(192)
Total net assets attributable to equity holders of the Company	54,007	54,711
Share capital	173	172
Share premium	2,637	2,625
IFRS basis shareholders' reserves	18,068	16,680
IFRS basis shareholders' equity	20,878	19,477
Shareholders' accrued interest in the long-term business	33,129	35,234
EEV basis shareholders' equity ^{note (ii)}	54,007	54,711

Notes

(i) Including liabilities in respect of insurance products classified as investment contracts under IFRS 4.
 (ii) Excluding non-controlling interests.

8 Methodology and accounting presentation

(i) Methodology

(a) Covered business

The EEV basis results for the Group are prepared for 'covered business' as defined by the EEV Principles. Covered business represents the Group's long-term insurance business (including the Group's investments in joint venture and associate insurance operations), for which the value of new and in-force contracts is attributable to shareholders.

The EEV basis results for the Group's covered business are then combined with the post-tax IFRS basis results of the Group's asset management and other operations (including interest costs on core structural borrowings, corporate expenditure for head office functions in London and Hong Kong that is not recharged/allocated to the insurance operations, and Africa operations), with an adjustment to deduct the unwind of expected margins on the internal management of the assets of the covered business. Under the EEV Principles, the results for covered business incorporate the projected margins of attaching internal asset management, as described in note (g) below.

The definition of long-term insurance business 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 under the technical definition.

(b) Valuation of in-force and new business

The EEV basis results are prepared incorporating best estimate assumptions about all relevant factors including levels of future investment returns, persistency, mortality, morbidity and expenses, as described in note 9(iii). These assumptions are used to project future cash flows. The present value of the projected future cash flows is then calculated using a discount rate, as shown in note 9(i), which reflects both the time value of money and all other non-diversifiable risks associated with the cash flows that are not otherwise allowed for.

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

New business

In determining the EEV basis value of new business, premiums are included in projected cash flows on the same basis of distinguishing regular and single premium business as set out in the Group's new business sales reporting.

New business premiums reflect those premiums attaching to the covered business, including premiums for contracts classified as investment contracts under IFRS 4. New business premiums for regular premium products are shown on an annualised basis.

New business profit represents profit determined by applying operating and economic assumptions as at the end of the year. New business profitability is a key metric for the Group's management of the development of the business. In addition, new business margins are shown by reference to annual premium equivalent (APE) and the present value of new business premiums (PVNBP). These margins are calculated as the percentage of the value of new business profit to APE and PVNBP. APE is calculated as the aggregate of regular premiums on new business written in the period and one-tenth of single premiums. PVNBP is calculated as the aggregate of single premiums and the present value of expected future premiums from regular premium new business, allowing for lapses and the other assumptions made in determining the EEV new business profit.

Valuation movements on investments

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

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

In determining the movements in the additional shareholders' interest, for Jackson's debt securities backing liabilities, the aggregate EEV basis results reflect the fact that the value of in-force business incorporates the discounted value of expected future spread earnings. This value is generally not affected by short-term market movements in debt securities that, broadly speaking, are held for the longer term. Consequently, within EEV total net worth, Jackson's debt securities backing liabilities are held on a statutory basis (largely at book value), while those backing surplus and required capital are accounted for at market value. Consistent with the treatment applied under IFRS 4, for Jackson's debt securities classified as available-for-sale, movements in unrealised appreciation and depreciation on these securities are accounted for directly in equity rather than in the income statement, as shown in 'Mark-to-market value movements on Jackson assets backing surplus and required capital' in the statement of movement in Group EEV shareholders' equity.

(c) Cost of capital

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

The EEV results are 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 within the fund is already adjusted to reflect its expected release over time and so no further adjustment to the shareholder position is necessary.

(d) Financial options and guarantees

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

Participating products in Asia, principally written in Hong Kong, Singapore and Malaysia, have both guaranteed and nonguaranteed elements. These products provide returns to policyholders through bonuses that are smoothed. There are two types of bonuses: regular and final. Regular bonuses are declared once a year and, once credited, are guaranteed in accordance with the terms of the particular products. Final bonuses are guaranteed only until the next bonus declaration.

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 typically accrue at rates set at inception and do not vary subsequently with market conditions. Similar to participating products, the policyholder charges incorporate an allowance for the cost of providing these guarantees. During 2020 the approach to determining these charges was reviewed and simplified for certain whole-of-life products in Hong Kong; the charges will now remain constant throughout varying economic conditions, rather than reducing as the economic environment improves and vice versa.

US

Jackson issues variable annuity contracts for which it contractually guarantees to the contract holder, subject to specific conditions, either: a) 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; b) total deposits made to the contract, adjusted for any partial withdrawals; b) total deposits made to the contract, adjusted for any partial withdrawals; b) total deposits made to the contract, adjusted for any withdrawals following the specified contract anniversary. These guarantees include benefits that are payable upon depletion of funds (Guaranteed Minimum Withdrawal Benefits (GMWB)) or as death benefits (Guaranteed Minimum Death Benefits (GMDB)). These guarantees generally protect the policyholder's contract value in the event of poor equity market performance. Jackson hedges the GMWB and GMDB guarantees through the use of equity options and futures contracts, with an expected long-term future hedging cost allowed for within the EEV value of in-force business to reflect the derivatives expected to be held based on the Group's current dynamic hedging programme and consideration of past practice. Jackson also historically issued a small amount of income benefits (Guaranteed Minimum Income Benefits (GMIB)), which are now materially fully reinsured.

In June 2020 the Group announced the reinsurance of substantially all of Jackson's in-force portfolio of fixed and fixed indexed annuity business to Athene Life Re Ltd. These contracts included some financial options and guarantees that are now materially fully reinsured as at 31 December 2020.

Time value

The value of financial options and guarantees comprises the intrinsic value (arising from a deterministic valuation on best estimate assumptions) and the time value (arising from the variability of economic outcomes in the future).

Where appropriate, a full stochastic valuation has been undertaken to determine the time value of 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, such as separate modelling of individual asset classes with an allowance for correlations between various asset classes. Details of the key characteristics of each model are given in note 9(ii).

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 regular and final 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 available to management.

The time value of financial options and guarantees reflects how the market value of the assets (including derivatives) held to manage the liability portfolios are expected to vary across the range of economic scenarios considered. In some economic scenarios the derivative portfolio may project gains in excess of the cost of the underlying guarantees on an EEV basis. If the calculation of the time value of options and guarantees results in a positive outcome for a particular product then the figure is capped at zero, reflecting the strong interaction between the outcome of the central economic scenario and the time value of financial options and guarantees in these circumstances, and the reported value of in-force business before deduction of cost of capital and time value of options and guarantees will reflect the outcome from the full stochastic valuation.

(e) Level of required capital

In adopting the EEV Principles, Prudential has based required capital on the applicable local statutory regulations, including any amounts considered to be required above the local statutory minimum requirements to satisfy regulatory constraints.

For shareholder-backed businesses, the following capital requirements for long-term business apply:

- Asia: the level of required capital has been set to an amount at least equal to local statutory notification requirements.
 - For Singapore life operations, from 31 March 2020 the level of net worth and required capital is based on the Tier 1 Capital position under the new risk-based capital framework (RBC2), which removes certain negative reserves permitted to be recognised in the full RBC2 regulatory position applicable to the Group's LCSM position, in order to better reflect free surplus and its generation;
 - For China JV life operations, the level of required capital follows the approach for embedded value reporting issued by the China Association of Actuaries (CAA) reflecting the C-ROSS regime; and
- US: the level of required capital has been set at 250 per cent of the risk-based capital (RBC) required by the National Association of Insurance Commissioners (NAIC) at the Company Action Level (CAL).

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

For the Group's relevant Asia operations, the proportion of surplus allocated to shareholders from the with-profits funds has been based on the applicable profit distribution between shareholders and policyholders. The EEV methodology includes the value attributed to the shareholders' interest in the residual estate 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. As required, adjustments are also made to reflect any capital requirements for with-profits business in Asia in excess of the available capital of the with-profits funds.

(g) Internal asset management

In line with the EEV Principles, the in-force and new business results from long-term business include the projected future profit or loss 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 profit from the management of both internal and external funds. EEV basis shareholders' other income and expenditure is adjusted to deduct the expected profit anticipated to arise in the current period in the opening VIF from internal asset management and other services. This deduction is on a basis consistent with that used for projecting the results for covered insurance business. Accordingly, Group operating profit includes the actual profit earned in respect of the management of these assets.

(h) Allowance for risk and risk discount rates

Overview

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

The risk-free rates are largely based on local government bond yields at the valuation date and are assumed to remain constant throughout the projection, with no trending or mean reversion to longer-term assumptions that cannot be observed in the current market.

The risk margin reflects any non-diversifiable risk associated with the emergence of distributable earnings that is not allowed for elsewhere in the valuation. In order to better reflect differences in relative market risk volatility inherent in each product group, Prudential sets the risk discount rates to reflect the expected volatility associated with the expected future shareholder cash flows for each product group in the embedded value model, rather than at a Group level.

Since financial options and guarantees are explicitly valued under the EEV methodology, risk discount rates exclude 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 the equity risk premium.

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-specific cash flows. These are determined by considering how the profit from each product is affected by changes in expected returns across asset classes. By converting this into a relative rate of return, it is possible to derive a product-specific beta. This approach contrasts with a top-down approach to market risk where the risks associated with each product are not directly reflected in the valuation basis.

Additional credit risk allowance

The Group's methodology allows for credit risk. The total allowance for credit risk covers expected long-term defaults, a 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, the 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 on the type of business as described below:

Asia

For Asia, the allowance for credit risk incorporated in the projected rates of return and the market risk allowance is considered to be 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 a term-dependent spread (net of an allowance for expected defaults) over the risk-free rate.

US

For Jackson, an allowance for long-term defaults, as shown in note 9(i)(b), is reflected in the risk margin reserve charge that 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 the credit risk premium and short-term downgrades and defaults, as shown in note 9(i)(b). In determining this allowance, a number of factors have been considered, in particular including:

- How much of the credit spread on debt securities represents an increased short-term credit risk not reflected in the risk margin reserve 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 that cannot be easily converted into cash at the fair market value). In assessing this effect, consideration has been given to a number of approaches to estimate the liquidity premium by considering recent statistical data; and
- Policyholder benefits for certain lines of 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 returns 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. In 2020 the additional allowance for non-variable annuity business was increased by 50 basis points, primarily to reflect additional market volatility over the year. The additional allowance for variable annuity business has been set at one-fifth of the additional allowance for non-variable annuity business to reflect the long-term proportion of variable annuity business invested in general account debt securities.

Allowance for non-diversifiable non-market risks

The majority of non-market and non-credit risks are considered to be diversifiable. An allowance for non-diversifiable non-market risks is estimated as set out below.

A base level allowance of 50 basis points is applied to cover the non-diversifiable non-market risks associated with the Group's covered business. For the Group's businesses in less mature markets (such as the Philippines and Thailand), additional allowances are applied for emerging market risk ranging from 100 to 250 basis points. The level and application of these allowances are reviewed and updated based on an assessment of the Group's exposure and experience in the markets. For the Group's business in more mature markets, no additional allowance is necessary. At 31 December 2020 the total allowance for non-diversifiable non-market risk in Asia is equivalent to a \$(3.2) billion reduction to the Asia EEV, or around (7) per cent of the embedded value.

(i) Foreign currency translation

Foreign currency profits and losses have been translated at average exchange rates for the year. Foreign currency transactions are translated at the spot rate prevailing at the date of the transactions. Foreign currency assets and liabilities have been translated at closing exchange rates. The principal exchange rates are shown in note A1 of the Group IFRS financial statements.

(j) Taxation

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

(ii) Accounting presentation

(a) Analysis of post-tax profit

To the extent applicable, the presentation of the EEV basis profit or loss for the year is consistent with the classification between operating and non-operating results that the Group applies for the analysis of IFRS basis results. Operating results are determined as described in note (b) below and incorporate the following:

- New business profit, as defined in note (i)(b) above;
- Expected return on existing business, as described in note (c) below;
- The impact of routine changes of estimates relating to operating assumptions, as described in note (d) below; and
- Operating experience variances, as described in note (e) below.

In addition, operating results include the effect of changes in tax legislation, unless these changes are one-off and structural in nature, or primarily affect the level of projected investment returns, in which case they are reflected as a non-operating result.

Non-operating results comprise:

- Short-term fluctuations in investment returns;
- Mark-to-market value movements on core structural borrowings;
- Effect of changes in economic assumptions;
- Impact of NAIC reform and other related changes in the US in full year 2019; and
- The impact of corporate transactions undertaken in the year.

Total profit or loss in the year 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.

(b) Investment returns included in operating profit

For the investment element of the assets covering the total net worth of long-term insurance business, investment returns are recognised in operating results at the expected long-term rates of return. These expected returns are calculated by reference to the asset mix of the portfolio.

For the purpose of determining the long-term returns for debt securities of Jackson for general account business, a risk margin reserve 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; for equity-related investments, a long-term rate of return is assumed (as shown in note 9(i)(b)), which reflects the aggregation of risk-free rates and the equity risk premium at the end of the reporting period. For variable annuity separate account business, operating profit includes the expected return on existing business adjusted to reflect projected rates of return at the end of the reporting period, with the excess or deficit of the actual return recognised within non-operating results, together with related hedging activity variances.

(c) Expected return on existing business

Expected return on existing business comprises the expected unwind of discounting effects on the opening value of in-force business and required capital and the expected return on existing free surplus. The unwind of discount and the expected return on existing free surplus are determined after adjusting for the effect of changes in economic and operating assumptions in the current period on the embedded value at the beginning of the year, for example the unwind of discount rates for the effect of changes in economic and operating assumptions in the current period capital is determined after adjusting both the opening value and the risk discount rates for the effect of changes in economic and operating assumptions in the current period.

(d) Effect of changes in operating assumptions

Operating profit includes the effect of changes to operating assumptions on the value of in-force business at the end of the reporting period. For presentational purposes the effect of changes is delineated to show the effect on the opening value of in-force business as operating assumption changes, with the experience variances subsequently being determined by reference to the assumptions at the end of the reporting period, as discussed below.

(e) Operating experience variances

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

(f) Effect of changes in economic assumptions

Movements in the value of in-force business at the beginning of the year caused by changes in economic assumptions, net of the related changes in the time value of financial options and guarantees, are recorded in non-operating results.

9 Assumptions

(i) Principal economic assumptions

The EEV basis results for the Group's covered business are determined using economic assumptions where both the risk discount rates and long-term expected rates of return on investments are set with reference to risk-free rates of return at the end of the reporting period. Both the risk discount rate and expected rates of return are updated at each valuation date to reflect current market risk-free rates, with the effect that changes in market risk-free rates impact all projected future cash flows. The risk-free rates of return are largely based on local government bond yields and are assumed to remain constant throughout the projection, with no trending or mean reversion to longer-term assumptions that cannot be observed in the current market. The risk-free rates of return are shown below for each of the Group's insurance operations. Expected returns on equity and property assets and corporate bonds are derived by adding a risk premium to the risk-free rate based on the Group's long-term view. Following the regular review of expected long-term returns across economies, equity risk premiums in the majority of business units were reduced by 50 basis points at 31 December 2020 from those applied at 31 December 2019, and the US dollar equity risk premium was increased by 60 basis points. Following an in-depth and more granular review of historic data across economies, long-term expected spreads (net of expected defaults) on corporate bonds were increased compared to the prior year. The related expected returns on equity and corporate bond assets and risk discount rates have been adjusted accordingly.

As described in note 8(i)(h), risk discount rates are set equal to the risk-free rate at the valuation date plus allowances for market risk, additional credit risk and non-diversifiable non-market risks appropriate to the features and risks of the underlying products and markets. Risks that are explicitly allowed for elsewhere in the EEV basis, such as via the cost of capital and the time value of options and guarantees, (as set out in note 2), are not included in the risk discount rates.

Given the linkage to current risk-free rates, which are at historically low levels, risk discount rates at 31 December 2020 are generally lower than has historically been the case. Under our EEV methodology there is a corresponding reduction in assumed future investment returns, which will also be lower than historical norms, countering the impact of the lower risk discount rates.

(a) Asia^{notes (1)(2)}

	R	lisk discou	unt rate %		10-year government bond yield %		Equity return (geometric) %	
	New busi	iness	In-force bu	isiness				
_	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
China JV	7.7	8.2	7.7	8.2	3.2	3.2	7.2	7.7
Hong Kong ^{note (1)}	2.0	3.7	2.1	3.7	0.9	1.9	4.4	4.8
Indonesia	8.9	10.8	10.0	10.8	6.5	7.2	10.8	11.9
Malaysia	4.4	5.8	4.9	5.9	2.6	3.3	6.1	7.3
Philippines	10.3	12.3	10.3	12.3	3.1	4.6	7.3	9.3
Singapore	2.3	3.3	2.9	3.9	0.9	1.7	4.4	5.7
Taiwan	3.0	3.4	2.5	3.0	0.3	0.7	4.3	5.2
Thailand	8.5	9.2	8.5	9.2	1.3	1.5	5.5	6.2
Vietnam	4.3	5.3	4.5	5.5	2.6	3.4	6.8	8.1
Total weighted average (new business) ^{note (3)}	4.1	4.9	n/a	n/a	2.1	2.6	5.8	6.1
Total weighted average (in-force business) ^{note (3)}	n/a	n/a	3.6	4.9	1.7	2.6	5.3	6.1

Notes

(1) For Hong Kong, the assumptions shown are for US dollar denominated business. For other businesses, the assumptions shown are for local currency denominated business.

(2) Expected long-term inflation assumptions in Asia range from 1.5 per cent to 5.5 per cent (31 December 2019: 1.5 per cent to 5.5 per cent).

(3) Total weighted average assumptions for Asia have been determined by weighting each business's assumptions by reference to the EEV basis new business profit and the net closing value of in-force business. The changes in the risk discount rates for individual Asia businesses reflect the movements in the local government bond yields, changes in the equity risk premiums, changes in the allowance for market risk (including as a result of changes in asset mix) and changes in product mix.

(b) US

	31 Dec 2020 %	31 Dec 2019 %
Risk discount rate:		
Variable annuity ^{note}	6.0	6.5
Non-variable annuity ^{note}	3.2	3.7
New business weighted average	5.7	6.1
In-force business weighted average	5.8	6.2
Allowance for long-term defaults included in projected spread ^{note 8(i)(h)}	0.2	0.2
US 10-year treasury bond yield	0.9	1.9
Equity risk premium (geometric)	3.5	2.9
Pre-tax expected long-term nominal rate of return for US equities (geometric)	4.4	4.8
Expected long-term rate of inflation	3.0	2.9
S&P 500 equity return volatility ^{note (ii)(b)}	17.5	17.5

Note

Includes an additional allowance for credit risk of 0.3 per cent for variable annuity business and 1.5 per cent for non-variable annuity business (31 December 2019: 0.2 per cent and 1.0 per cent respectively) as described in note 8(i)(h).

(ii) Stochastic assumptions

Details are given below of the key characteristics of the models used to determine the time value of financial options and guarantees as referred to in note 8(i)(d).

(a) Asia

- The stochastic cost of guarantees is primarily of significance for the Hong Kong, Malaysia, Singapore, Taiwan and Vietnam businesses;
- The principal asset classes are government bonds, corporate bonds and equity;
- 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;
- The volatility of equity returns ranges from 18 per cent to 35 per cent for both years; and
- The volatility of government bond yields ranges from 1.1 per cent to 2.0 per cent for both years.

(b) US (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 17 per cent to 26 per cent for both years; and
- The standard deviation of interest rates ranges from 1.7 per cent to 1.8 per cent (31 December 2019: from 3.1 per cent to 3.3 per cent).

(iii) Operating assumptions

Best estimate assumptions are used for projecting future cash flows, 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 time value of financial 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, and 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. When projecting future cash flows for medical reimbursement business that is repriced annually, explicit allowance is made for expected future premium inflation and separately for future medical claims inflation.

Expense assumptions

Expense levels, including those of the service companies that support the Group's long-term business, are based on internal expense analysis and are appropriately allocated to acquisition of new business and renewal of in-force business. For mature business, it is Prudential's policy not to take credit for future cost reduction programmes until the actions to achieve the savings have been delivered. An allowance is made for short-term required expenses that are not representative of the longer-term expense loadings of the relevant businesses. At 31 December 2020 the allowance held for these costs across the Group was \$128 million, arising in Asia. Expense overruns are reported where these are expected to be short-lived, including businesses that are growing rapidly or are sub-scale.

For Asia, expenses comprise costs borne directly and costs recharged/allocated from the Group head office functions in London and Hong Kong that are attributable to the long-term insurance (covered) business. The assumed future expenses for the long-term insurance business allow for amounts expected to be recharged/allocated by the head office functions. Development expenses are allocated to Asia covered business and are charged as incurred.

Corporate expenditure, which is included in other income and expenditure, comprises expenditure of the Group head office functions in London and Hong Kong that is not recharged/allocated to the long-term insurance or asset management operations, primarily for corporate related activities that are charged as incurred, together with restructuring and IFRS 17 implementation costs incurred across the Group.

Tax rates

The assumed long-term effective tax rates for operations reflect the expected incidence of taxable profit and loss in the projected future cash flows as explained in note 8(i)(j). The local standard corporate tax rates applicable for 2020 and 2019 are as follows:

Asia operations:	<u> </u>
China JV	25.0
Hong Kong	16.5 per cent on 5 per cent of premium income
Indonesia ^{note}	2019: 25.0; 2020 and 2021: 22.0; from 2022: 20.0
Malaysia	24.0
Philippines	30.0
Singapore	17.0
Taiwan	20.0
Thailand	20.0
Vietnam	20.0
US operations	21.0

Note

Reflects a reduction from 25 per cent effective in the first half of 2020.

10 Insurance new business^{note (a)}

	Single premiums		Regular pro	emiums	Annual premium equivalent (APE)		Present value of new business premiums (PVNBP)	
	2020 \$m	2019 \$m	2020 \$m	2019 \$m	2020 \$m	2019 \$m	2020 \$m	2019 \$m
Asia		<u> </u>						
Cambodia	-	-	10	24	10	24	45	111
China JV ^{note (b)}	1,068	710	475	518	582	590	2,705	2,586
Hong Kong	184	387	741	1,977	758	2,016	5,095	12,815
India ^{note (c)}	225	155	154	245	177	260	902	1,179
Indonesia	226	292	244	361	267	390	1,154	1,668
Laos	-	-	1	-	1	-	3	-
Malaysia	90	209	337	333	346	355	2,023	2,090
Myanmar	-	-	-	-	-	-	· 1	-
Philippines	49	51	134	153	139	158	528	561
Singapore	1,496	1,217	460	539	610	660	5,354	4,711
Taiwan	201	544	367	278	387	332	1,445	1,418
Thailand	122	192	171	140	183	159	768	763
Vietnam	21	22	234	215	236	217	1,564	1,342
Total Asia	3,682	3,779	3,328	4,783	3,696	5,161	21,587	29,244
US								
Variable annuities	14,564	12,692	-	-	1,456	1,270	14,564	12,692
Elite Access (variable annuities)	2,057	2,002	-	-	206	200	2,057	2,002
Fixed annuities	327	1,194	-	-	33	119	327	1,194
Fixed indexed annuities	997	3,821	-	-	100	382	997	3,821
Institutional	1,284	2,522	-	-	128	252	1,284	2,522
Total US	19,229	22,231	-	-	1,923	2,223	19,229	22,231
Group total ^{note (d)}	22,911	26,010	3,328	4,783	5,619	7,384	40,816	51,475

Notes

(a) The tables shown above are provided as an indicative volume measure of transactions undertaken in the reporting period that have the potential to generate profit for shareholders. The amounts shown are not, and not intended to be, reflective of premium income recorded in the Group IFRS income statement.

(b) New business in China JV is included at Prudential's 50 per cent interest in the joint venture.

(c) New business in India is included at Prudential's 22 per cent interest in the associate.

(d) In 2020, the Africa business sold new business APE of \$112 million (2019: \$82 million on an actual exchange rate basis, \$74 million on a constant exchange rate basis). Given the relative immaturity of the Africa business, it is incorporated into the Group's EEV basis results on an IFRS basis and is excluded from new business sales and profit metrics.

11 Post balance sheet events

Intention to demerge the Group's US operations in the second quarter of 2021

In January 2021, the Board announced that it had decided to pursue the separation of its US operations (Jackson) from the Group through a demerger, whereby shares in Jackson would be distributed to Prudential shareholders.

Subject to shareholder and regulatory approvals, the planned demerger is expected to complete in the second quarter of 2021 and would lead to a significantly earlier separation of Jackson from the Group than would have been possible through a minority IPO and future sell-downs, which from market precedent may have lasted until 2023. At the point of demerger, Prudential is planning to retain a 19.9 per cent non-controlling interest in Jackson, which will be reported within the consolidated financial position as a financial investment at fair value. Subject to market conditions, the Group intends to monetise a portion of this investment to support investment in Asia within 12 months of the planned demerger, such that the Group will own less than 10 per cent at the end of such period.

Additional EEV financial information*

A New business schedules

Basis of preparation

The format of the schedules is consistent with the distinction between insurance and investment products as applied for previous 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 local regulatory reporting purposes.

The details shown 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 4. Contracts included in this category are primarily Guaranteed Investment Contracts and similar funding agreements written in Jackson and certain unit-linked and similar contracts written in Asia insurance operations.

New business premiums reflect those premiums attaching to covered business, including premiums for contracts designed as investment products for IFRS reporting and for regular premium products are shown on an annualised basis.

Investment products referred to in the tables for funds under management are unit trusts, 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, as described in the preceding paragraph, although similar IFRS recognition and measurement principles apply to the acquisition costs and fees attaching to this type of business.

Post-tax new business profit has been determined using the European Embedded Value (EEV) methodology set out in our EEV basis results supplement.

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

Annual premium equivalent (APE) sales are subject to rounding.

* The additional financial information is not covered by the KPMG LLP independent audit opinion.

Notes to Schedules A(i) to A(iv)

(1) Prudential plc reports its results using both actual exchange rates (AER) and constant exchange rates (CER) to eliminate the impact of exchange translation. The rates below are for US dollars (USD) against local currency.

	Closing rate at year end			ear to date
USD : local currency	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
Chinese yuan (CNY)	6.54	6.97	6.90	6.91
Hong Kong dollar (HKD)	7.75	7.79	7.76	7.84
Indian rupee (INR)	73.07	71.38	74.12	70.43
Indonesian rupiah (IDR)	14,050.00	13,882.50	14,541.70	14,140.84
Malaysian ringgit (MYR)	4.02	4.09	4.20	4.14
Singapore dollar (SGD)	1.32	1.34	1.38	1.36
Taiwan dollar (TWD)	28.10	29.98	29.44	30.91
Thai baht (THB)	30.02	29.75	31.29	31.05
UK pound sterling (GBP)	0.73	0.75	0.78	0.78
Vietnamese dong (VND)	23,082.50	23,172.50	23,235.84	23,227.64

(2) Annual premium equivalent (APE) is calculated as the aggregate of regular premiums on business written in the year and onetenth of single premiums. Present value of new business premiums (PVNBP) are calculated as the aggregate of single premiums and the present value of expected future premiums from regular premium new business, allowing for lapses and the other assumptions applied in determining the EEV new business profit.

(3) New business in China JV is included at Prudential's 50 per cent interest in the joint venture.

(4) New business in India is included at Prudential's 22 per cent interest in the associate.

(5) Mandatory Provident Fund (MPF) product flows in Hong Kong are included at Prudential's 36 per cent interest in the Hong Kong MPF business.

(6) Investment flows for the year exclude Eastspring Money Market Funds (MMF) gross inflow of \$76,317 million (2019: gross inflow of \$236,603 million) and net inflow of \$48 million (2019: net outflow of \$(1,856) million). The flows exclude any amounts managed by M&G plc, which was demerged from the Group in October 2019.

(7) Balance sheet figures have been calculated at the closing exchange rates.

Schedule A(i) Insurance operations (actual and constant exchange rates)

AER	Singl	e premiu	ms	Regula	ar premiu	ıms	Α	PE ^{note (2)}		PV	NBP ^{note (2}	.)
	2020	2019	+/(-)	2020	2019	+/(-)	2020	2019	+/(-)	2020	2019	+/(-)
	\$m	\$m	%	\$m	\$m	%	\$m	\$m	%	\$m	\$m	%
Asia												
Cambodia	-	-	-	10	24	(58)%	10	24	(58)%	45	111	(59)%
China JV ^{note (3)}	1,068	710	50%	475	518	(8)%	582	590	(1)%	2,705	2,586	5%
Hong Kong	184	387	(52)%	741	1,977	(63)%	758	2,016	(62)%	5,095	12,815	(60)%
India ^{note (4)}	225	155	45%	154	245	(37)%	177	260	(32)%	902	1,179	(23)%
Indonesia	226	292	(23)%	244	361	(32)%	267	390	(32)%	1,154	1,668	(31)%
Laos	-	-	-	1	-	-	1	-	-	3	-	-
Malaysia	90	209	(57)%	337	333	1%	346	355	(3)%	2,023	2,090	(3)%
Myanmar	-	-	-	-	-	-	-	-	-	1	-	-
Philippines	49	51	(4)%	134	153	(12)%	139	158	(12)%	528	561	(6)%
Singapore	1,496	1,217	23%	460	539	(15)%	610	660	(8)%	5,354	4,711	14%
Taiwan	201	544	(63)%	367	278	32%	387	332	17%	1,445	1,418	2%
Thailand	122	192	(36)%	171	140	22%	183	159	15%	768	763	1%
Vietnam	21	22	(5)%	234	215	9%	236	217	9%	1,564	1,342	17%
Total Asia	3,682	3,779	(3)%	3,328	4,783	(30)%	3,696	5,161	(28)%	21,587	29,244	(26)%
US												
Variable annuities	14,564	12,692	15%	-	-	-	1,456	1,270	15%	14,564	12,692	15%
Elite Access (variable annuity)	2,057	2,002	3%	-	-	-	206	200	3%	2,057	2,002	3%
Fixed annuities	327	1,194	(73)%	-	-	-	33	119	(72)%	327	1,194	(73)%
Fixed indexed annuities	997	3,821	(74)%	-	-	-	100	382	(74)%	997	3,821	(74)%
Wholesale	1,284	2,522	(49)%	-	-	-	128	252	(49)%	1,284	2,522	(49)%
Total US	19,229	22,231	(14)%	-	-	-	1,923	2,223	(13)%	19,229	22,231	(14)%
Group total	22,911	26,010	(12)%	3,328	4,783	(30)%	5,619	7,384	(24)%	40,816	51,475	(21)%

* In 2020, the Africa business operations sold APE new business of \$112 million (2019: \$82 million on a actual exchange rate basis). Given the relative immaturity of the Africa business, it is incorporated into the Group's EEV basis results on an IFRS basis and is excluded from new business sales and profit metrics.

CER	Singl	e premiu	ns	Regula	ar premiu	ms	Α	PE ^{note(2)}		P۷	NBP ^{note(2)}	
	2020	2019	+/(-)	2020	2019	+/(-)	2020	2019	+/(-)	2020	2019	+/(-)
	\$m	\$m	%	\$m	\$m	%	\$m	\$m	%	\$m	\$m	%
Asia												
Cambodia	-	-	-	10	24	(58)%	10	24	(58)%	45	110	(59)%
China JV ^{note (3)}	1,068	711	50%	475	518	(8)%	582	590	(1)%	2,705	2,588	5%
Hong Kong	184	391	(53)%	741	1,997	(63)%	758	2,037	(63)%	5,095	12,946	(61)%
India ^{note (4)}	225	147	53%	154	233	(34)%	177	247	(28)%	902	1,120	(19)%
Indonesia	226	284	(20)%	244	351	(30)%	267	379	(30)%	1,154	1,622	(29)%
Laos	-	-		1	-	-	1	-	-	3	-	-
Malaysia	90	206	(56)%	337	329	2%	346	349	(1)%	2,023	2,061	(2)%
Myanmar	-	-		-	-	-	-	-	-	1	-	-
Philippines	49	53	(8)%	134	160	(16)%	139	165	(16)%	528	586	(10)%
Singapore	1,496	1,204	24%	460	533	(14)%	610	653	(7)%	5,354	4,659	15%
Taiwan	201	571	(65)%	367	291	26%	387	349	11%	1,445	1,489	(3)%
Thailand	122	191	(36)%	171	139	23%	183	158	16%	768	756	2%
Vietnam	21	22	(5)%	234	215	9%	236	217	9%	1,564	1,341	17%
Total Asia	3,682	3,780	(3)%	3,328	4,790	(31)%	3,696	5,168	(28)%	21,587	29,278	(26)%
US												
Variable annuities	14,564	12,692	15%	-	-	-	1,456	1,270	15%	14,564	12,692	15%
Elite Access (variable annuity)	2,057	2,002	3%	-	-	-	206	200	3%	2,057	2,002	3%
Fixed annuities	327	1,194	(73)%	-	-	-	33	119	(72)%	327	1,194	(73)%
Fixed indexed annuities	997	3,821	(74)%	-	-	-	100	382	(74)%	997	3,821	(74)%
Wholesale	1,284	2,522	(49)%	-	-	-	128	252	(49)%	1,284	2,522	(49)%
Total US	19,229	22,231	(14)%	-	-	-	1,923	2,223	(13)%	19,229	22,231	(14)%
Group total	22,911	26,011	(12)%	3,328	4,790	(31)%	5,619	7,391	(24)%	40,816	51,509	(21)%

In 2020, the Africa business operations sold APE new business of \$112 million (2019: \$74 million on a constant exchange rate basis). Given the relative immaturity of the Africa business, it is incorporated into the Group's EEV basis results on an IFRS basis and is excluded from new business sales and profit metrics.

Schedule A(ii) Insurance new business APE (actual and constant exchange rates)

		AE	R			CER				
	2020 \$	m	2019 \$	Sm	2020 \$	im	2019 \$	m		
	H1	H2	H1	H2	H1	H2	H1	H2		
Asia										
Cambodia	4	6	15	9	4	6	14	10		
China JV ^{note (3)}	319	263	350	240	327	255	344	246		
Hong Kong	388	370	1,075	941	389	369	1,086	951		
India ^{note (4)}	83	94	137	123	83	94	130	117		
Indonesia	123	144	156	234	123	144	152	227		
Laos	-	1	-	-	-	1	-	-		
Malaysia	123	223	158	197	124	222	155	194		
Myanmar	-	-	-	-	-	-	-	-		
Philippines	56	83	71	87	56	83	74	91		
Singapore	229	381	299	361	232	378	294	359		
Taiwan	155	232	149	183	158	229	158	191		
Thailand	90	93	62	97	91	92	63	95		
Vietnam	95	141	88	129	95	141	88	129		
Total Asia	1,665	2,031	2,560	2,601	1,682	2,014	2,558	2,610		
us										
Variable annuities	643	813	628	642	643	813	628	642		
Elite Access (variable annuity)	88	118	96	104	88	118	96	104		
Fixed annuities	31	2	23	96	31	2	23	96		
Fixed indexed annuities	89	11	120	262	89	11	120	262		
Wholesale	128	-	208	44	128	-	208	44		
Total US	979	944	1,075	1,148	979	944	1,075	1,148		
Group total	2,644	2,975	3,635	3,749	2,661	2,958	3,633	3,758		

Note

Comparative results for the first half (H1) and second half (H2) of 2019 are presented on both actual exchange rates (AER) and constant exchange rates (CER). The H2 amounts are presented on year-to-date average exchange rates (including the effect of retranslating H1 results for movements in average exchange rates between H1 and the year-to-date).

Schedule A(iii) Insurance new business profit (actual and constant exchange rates)

		AE	R		CER				
	2020		2019)	2020)	2019		
	HY	FY	HY	FY	HY	FY	HY	FY	
New business profit (\$m)									
Asia	912	2,201	1,675	3,522	919	2,201	1,681	3,533	
US	248	601	450	883	248	601	450	883	
Group total	1,160	2,802	2,125	4,405	1,167	2,802	2,131	4,416	
APE (\$m) ^{note (2)}									
Asia	1,665	3,696	2,560	5,161	1,682	3,696	2,558	5,168	
US	979	1,923	1,075	2,223	979	1,923	1,075	2,223	
Group total	2,644	5,619	3,635	7,384	2,661	5,619	3,633	7,391	
New business margin (NBP as a % of APE)									
Asia	55%	60%	65%	68%	55%	60%	66%	68%	
US	25%	31%	42%	40%	25%	31%	42%	40%	
Group total	44%	50%	58%	60%	44%	50%	59%	60%	
PVNBP (\$m) ^{note (2)}									
Asia	9,173	21,587	14,218	29,244	9,259	21,587	14,217	29,278	
US	9,789	19,229	10,752	22,231	9,789	19,229	10,752	22,231	
Group total	18,962	40,816	24,970	51,475	19,048	40,816	24,969	51,509	
New business margin (NBP as a % of PVNBP)									
Asia	9.9%	10.2%	11.8%	12.0%	9.9%	10.2%	11.8%	12.1%	
US	2.5%	3.1%	4.2%	4.0%	2.5%	3.1%	4.2%	4.0%	
Group total	6.1%	6.9%	8.5%	8.6%	6.1%	6.9%	8.5%	8.6%	

Schedule A(iv) Investment operations (actual exchange rates)

	2020 \$m	1	2019 \$m		
Eastspring investment operations:*	H1	H2	H1	H2	
Third-party retail: ^{note (5)}					
Opening FUM	73,644	59,346	55,198	62,441	
Net Flows: ^{note (6)}	(8,026)	(2,602)	2,682	3,313	
- Gross Inflows	19,983	17,329	19,628	23,005	
- Redemptions	(28,009)	(19,931)	(16,946)	(19,692)	
Other Movements [†]	(6,272)	10,094	4,561	7,890	
Closing FUM ^{note (7)}	59,346	66,838	62,441	73,644	
Third-party institutional:					
Opening FUM	11,024	9,957	7,788	9,431	
Net Flows:	(336)	992	1,274	1,071	
- Gross Inflows	1,621	1,494	1,661	1,802	
- Redemptions	(1,957)	(502)	(387)	(731)	
Other Movements	(731)	2,878	369	522	
Closing FUM ^{note (7)}	9,957	13,827	9,431	11,024	
Total third-party (excluding MMF)	69.303	80,665	71,872	84,668	

* Excluding those managed on behalf of the discontinued UK and Europe operations (M&G plc).
 † Other movements in H2 2019 included an inflow of \$7.0 billion funds under management (excluding MMF) from the acquisition of Thanachart Fund Management Co., Ltd. ('TFUND') in Thailand.

B Reconciliation of expected transfer of value of in-force business and required capital to free surplus for Asia long-term business operations

The table below shows how the value of in-force business (VIF) and the associated required capital for Asia long-term business operations are projected as emerging into free surplus over the next 40 years. Although circa 8 per cent of the embedded value for Asia operations emerges after this date, analysis of cash flows emerging in the years shown is considered most meaningful. The modelled cash flows use the same methodology underpinning the Group's embedded value reporting and so are subject to the same assumptions and sensitivities used to prepare our 2020 results.

Post its separation from the Group, Jackson will no longer publish EEV results and so this section covers Asia only.

In addition to showing the amounts, on both a discounted and undiscounted basis, expected to be generated from all in-force business at 31 December 2020, the table also presents the future free surplus expected to be generated from the investment made in new business during 2020 over the same 40-year period.

	31 Dec 2020 \$m								
	Asia long-term business operations Expected generation from Expected generation from								
	all in-force bus		Expected generation from new business written in 2020*						
Expected period of emergence	Undiscounted	Undiscounted Discounte							
2021	2,156	Discounted 2,088	261	252					
2022	2,084	1,924	184	166					
2023	2,085	1,843	176	151					
2024	1,978	1,679	158	130					
2025	1,928	1,578	160	126					
2026	1,895	1,495	149	114					
2027	1,924	1,472	155	118					
2028	1,938	1,440	154	112					
2029	1,647	1,146	148	104					
2030	1,953	1,379	151	103					
2031	1,867	1,267	142	92					
2032	1,794	1,169	140	87					
2033	1,726	1,085	128	75					
2034	1,679	1,022	122	68					
2035	1,641	968	133	69					
2036	1,592	916	111	58					
2037	1,571	880	110	56					
2038	1,558	846	109	53					
2039	1,552	822	108	50					
2040	1,507	770	117	50					
2041-2045	7,008	3,315	510	208					
2046-2050	6,287	2,589	485	162					
2051-2055	5,218	1,878	433	124					
2056-2060	4,488	1,411	398	96					
Total free surplus expected to									
emerge in the next 40 years	59,076	34,982	4,742	2,624					

* The analysis excludes amounts incorporated into VIF and required capital at 31 December 2020 where there is no definitive time frame for when the payments will be made or receipts received. It also excludes any free surplus projected to emerge after 2060.

The expected free surplus generation from new business written in 2020 can be reconciled to the new business profit as follows:

	2020 \$m
Undiscounted expected free surplus generation for years 2021 to 2060	4,742
Less: discount effect	(2,118)
Discounted expected free surplus generation for years 2021 to 2060	2,624
Discounted expected free surplus generation for years after 2060	252
Discounted expected free surplus generation from new business written in 2020	2,876
Free surplus investment in new business	(559)
Other items*	(116)
New business profit	2,201

* Other items represent the impact of the time value of options and guarantees on new business, foreign exchange effects and other non-modelled items. Foreign exchange effects arise as EEV new business profit amounts are translated at average exchange rates and the expected free surplus generation is translated at closing rates.

The discounted expected free surplus generation from in-force business can be reconciled to the embedded value for long-term business operations as follows:

Discounted expected generation from all in-force business for years 2021 to 2060 Discounted expected generation from all in-force business for years after 2060	: 2020 \$m
Discounted expected generation from all in-force business for years after 2060	34,982
	3,612
Discounted expected generation from all in-force business at 31 December 2020	38,594
Free surplus of long-term business operations at 31 December 2020	5,295
Other items*	(1,081)
EEV for long-term business operations	42,808

* Other items represent the impact of the time value of options and guarantees and other non-modelled items.

The undiscounted expected free surplus generation from all in-force business at 31 December 2020 can be reconciled to the amount that was expected to be generated at 31 December 2019 as follows:

	2020 \$m	2021 \$m	2022 \$m	2023 \$m	2024 \$m	2025 \$m	Other \$m	Total \$m
2019 expected free surplus generation								
for years 2020 to 2059	1,963	2,088	1,941	1,965	1,895	1,874	51,297	63,023
Less: Amounts expected to be realised								
in the current year	(1,963)	-	-	-	-	-	-	(1,963)
Add: Expected free surplus to be								,
generated in year 2060*	-	-	-	-	-	-	1,204	1,204
Foreign exchange differences	-	23	24	23	21	20	652	763
New business	-	261	184	176	158	160	3,803	4,742
Operating movements	-	11	53	42	43	18		
Non-operating and other movements	-	(227)	(118)	(121)	(139)	(144)	(8,111)	(8,693)
2020 expected free surplus generation								
for years 2021 to 2060	-	2,156	2,084	2,085	1,978	1,928	48,845	59,076
*								

* Excluding 2020 new business.

At 31 December 2020, the total free surplus expected to be generated over the next five years (2021 to 2025 inclusive) for Asia long-term business operations, using the same assumptions and methodology as those underpinning our 2020 embedded value reporting, was \$10.2 billion (31 December 2019: \$9.9 billion).

At 31 December 2020, the total free surplus expected to be generated on an undiscounted basis over the next 40 years for Asia long-term business operations is \$59.1 billion, \$3.9 billion lower than the \$63.0 billion expected at the end of 2019. In Asia, the effect of generally lower interest rates across the region decreasing projected returns is partially offset by the increase from new business of \$4.7 billion, together with favourable foreign exchange gains and operating assumption updates following the annual review of experience.

Actual underlying free surplus generated in 2020 from Asia long-term business in force at the end of 2019, before restructuring and IFRS 17 implementation costs, was \$2.2 billion, including \$0.2 billion of changes in operating assumptions and experience variances. This compares with the expected 2020 realisation at the end of 2019 of \$2.0 billion and can be analysed further as follows:

	2020 \$m
Expected transfer from in-force business to free surplus in 2020	1,878
Expected return on existing free surplus	101
Changes in operating assumptions and experience variances	222
Underlying free surplus generated from long-term business in force before restructuring and IFRS 17 implementation costs	2,201
2020 free surplus expected to be generated at 31 December 2019	1,963

C Calculation of return on embedded value

Operating return on embedded value is calculated as the post-tax EEV operating profit for the year as a percentage of average EEV basis shareholders' equity.

		2020		
	Asia	US	Other	Group
EEV basis operating profit (loss) for the year	4,387	1,880	(858)	5,409
Operating profit (loss) attributable to non-controlling interests	(11)	(123)	1	(133)
EEV basis operating profit (loss) for the year, net of non-controlling interest (\$ million)	4,376	1,757	(857)	5,276
Restructuring and IFRS 17 implementation costs	(88)	(36)	(65)	(189)
EEV basis operating profit (loss) for the year, after restructuring and IFRS 17 implementation costs, net of non-controlling interests (\$ million)	4,288	1,721	(922)	5,087
Average EEV basis shareholders' equity (\$ million)	41,738	14,212	(1,591)	54,359
Operating return on average shareholders' equity, before restructuring and IFRS 17 implementation costs (%)	10%	12%	n/a	10%
Operating return on average shareholders' equity, after restructuring and IFRS 17 implementation costs (%)	10%	12%	n/a	9%

	2019	
—	Asia	US
EEV basis operating profit for the year	6,138	1,782
Operating profit attributable to non-controlling interests	(6)	-
EEV basis operating profit for the year, net of non-controlling interest (\$ million)	6,132	1,782
Restructuring and IFRS 17 implementation costs	(31)	(5)
EEV basis operating profit for the year, after restructuring and IFRS 17 implementation costs, net of non-controlling interests (\$ million)	6,101	1,777
Average EEV basis shareholders' equity (\$ million)	35,622	17,526
Operating return on average shareholders' equity, before restructuring and IFRS 17 implementation costs (%)	17%	10%
Operating return on average shareholders' equity, after restructuring and IFRS 17 implementation costs (%)	17%	10%

New business profit over embedded value is calculated as the post-tax EEV new business profit for the year as a percentage of average EEV basis shareholders' equity.

	2020		2019	
	Asia	US	Asia	US
New business profit (\$ million)*	2,201	601	3,522	883
Average EEV basis shareholders' equity (\$ million)	41,738	14,212	35,622	17,526
New business profit over embedded value (%)	5%	4%	10%	5%

* New business profit is attributed to the shareholders of the Group before deducting the amount attributable to non-controlling interests.

Average EEV basis shareholders' equity has been based on opening and closing balances as follows:

		2020 \$m			2019 \$m	
	Asia	US	Other	Group	Asia	US
Balance at beginning of year	39,235	16,342	(866)	54,711	32,008	18,709
Balance at end of year	44,241	12,081	(2,315)	54,007	39,235	16,342
Average EEV basis shareholders' equity	41,738	14,212	(1,591)	54,359	35,622	17,526

D Calculation of EEV shareholders' funds per share

EEV shareholders' equity per share is calculated as closing EEV shareholders' equity divided by the number of issued shares at 31 December 2020 of 2,609 million (31 December 2019: 2,601 million). EEV shareholders' equity per share excluding goodwill attributable to equity holders is calculated in the same manner, except goodwill attributable to equity holders is deducted from closing EEV shareholders' equity.

		31 Dec 202	20		
				Group	
	Asia	US	Other	total	
Closing EEV shareholders' equity (\$ million)	44,241	12,081	(2,315)	54,007	
Less: Goodwill attributable to equity holders (\$ million)	(798)	-	(23)	(821)	
Closing EEV shareholders' equity excluding goodwill attributable to equity					
holders (\$ million)	43,443	12,081	(2,338)	53,186	
Shareholders' equity per share (in cents)	1,696¢	463¢	(89)¢	2,070¢	
Shareholders' equity per share excluding goodwill attributable to equity					
holders (in cents)	1,666¢	463¢	(90)¢	2,039¢	
_	31 Dec 2019				
		31 Dec 201	9	Crown	
	Asia	US	Other	Group total	
Closing EEV shareholders' equity (\$ million)	39,235	16,342	(866)	54,711	
Less: Goodwill attributable to equity holders (\$ million)	(796)	-	(26)	(822)	
Closing EEV shareholders' equity excluding goodwill attributable to equity					
holders (\$ million)	38,439	16,342	(892)	53,889	
Shareholders' equity per share (in cents)	1,508¢	628¢	(33)¢	2,103¢	
Shareholders' equity per share excluding goodwill attributable to equity					
holders (in cents)	1,478¢	628¢	(34)¢	2,072¢	