AVIVA

News Release

6 August 2020

AVIVA PLC 2020 INTERIM RESULTS ANNOUNCEMENT*

Amanda Blanc, Chief Executive Officer, said:

> We will focus Aviva on our strongest businesses in the UK, Ireland and Canada and aim to be the UK's leading insurer. We are going to focus on those businesses where we have the necessary size, capability and brilliant customer service to generate superior shareholder returns. This is where we will invest and grow. Where we cannot meet our strategic objectives, we will take decisive action and we will withdraw capital.
>
> We must transform our performance and improve our efficiency. This requires great customer service, stronger innovation and better use of our brand. Our transformation will be underpinned by continuing to manage our balance sheet prudently, reducing debt and increasing our financial resilience.
>
> Aviva's financial performance in the first half of 2020 was solid. Our financial position is strong and operating profit of £1.2 billion was robust, thanks to our diverse range of products, excellent partners and our swift operational response to the COVID-19 pandemic. I am proud of the way our people have gone above and beyond to help our customers during this crisis.
>
> The Board has declared a second interim dividend in respect of the 2019 financial year of 6 pence per share. While the Board continues to monitor the impact of COVID-19 and the economic outlook, we have decided to take the opportunity to review our longer term dividend policy, in light of our strategic priorities and the future shape of the group, with the objective of a sustainable pay-out and lower levels of debt. We will update shareholders on all dividend matters, including the 2019 final dividend in the fourth quarter.
>
> I have been CEO for one month and I am confident we have many of the ingredients to make Aviva a winner. From this moment on, we must deliver. Nothing else will do. My focus is making sure it happens and at pace.

Economic returns	• Operating capital generation[‡#] £890 million *(HY19: £780 million)* • Solvency II return on equity[1,‡] 7.1% *(HY19: 11.0%)* • Own funds generation[1] £632 million *(HY19: £864 million)*
Profit	• Operating profit[2,3,‡#] £1,225 million *(HY19: £1,386 million)* • Operating EPS[2,3,4,‡#] 23.4 pence *(HY19: 26.1 pence)* • IFRS profit before tax attributable to shareholders £1,076 million *(HY19 £1,523 million)* • Basic EPS 20.0 pence *(HY19: 28.2 pence)*
Dividend	• Second interim dividend in respect of 2019 of 6 pence per share
Capital & Cash	• Solvency II capital surplus[5] £12.0 billion *(FY19: £12.6 billion)* • Solvency II cover ratio[5,‡#] 194% *(FY19: 206%)* • Solvency II net asset value[5] 416 pence *(FY19: 423 pence)* • Cash remittances[‡#] £150 million *(HY19: £1,582 million)* • Centre liquidity[6] £2.5 billion *(February 2020: £2.4 billion)* • Debt leverage ratio[7,‡] 32% *(FY19: 31%)* • IFRS net asset value per share[8] 473 pence *(FY19: 434 pence)*
Performance	• Life PVNBP £21.2 billion *(HY19: £21.3 billion)* • Value of new business (VNB)[‡] £601 million *(HY19: £535 million)* • General insurance net written premiums (NWP) £4,748 million *(HY19: £4,725 million)* • General insurance combined operating ratio (COR)[3,‡] 99.8% *(HY19: 96.8%)* • General insurance net IFRS COVID-19 claims impact £165 million • Controllable costs[3,9,‡] £1,912 million *(HY19: £1,966 million)*

‡ Denotes Alternative Performance Measures (APMs) which are key performance indicators of the Group used to measure our performance and financial strength. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
# Denotes key performance indicators which are used by the Group to determine or modify remuneration. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
1 Includes Group centre, debt costs and other items not allocated to the markets.
2 Group adjusted operating profit is a non-GAAP APM which is not bound by the requirements of IFRS. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
3 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2 of the Analyst Pack). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit. Following the change in the definition of Group adjusted operating profit, COR, controllable costs and operating earnings per share were also restated to include the amortisation and impairment of internally generated intangible assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in prior period COR of 0.9%, an increase in prior period controllable costs of £62 million and a reduction in prior period operating earnings per share of 1.2 pence.
4 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
5 The estimated Solvency II position represents the shareholder view only. See section 3 of the Analyst Pack for more details.
6 Stated as at end July.
7 Excluding the direct capital instrument, which was redeemed in full at first call date on 27 July 2020.
8 Number of shares as at 30 June 2020: 3,928 million *(FY19: 3,921 million)*.
9 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £41 million for the 6 month period ended 30 June 2019 and £83 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to the Life & Health businesses from the UK, Ireland and Poland in controllable costs.

* This announcement contains inside information. The person responsible for making this announcement on behalf of the Group is Kirstine Cooper (Group Company Secretary).

[Key financial metrics](#)

Profit

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Sterling % change	Full year 2019 £m
Operating profit[2,‡#]	**1,225**	1,386	(12)%	3,184
Operating earnings per share[2,3,‡#]	**23.4p**	26.1p	(10)%	60.5p
IFRS profit before tax attributable to shareholders	**1,076**	1,523	(29)%	3,374
Basic earnings per share	**20.0p**	28.2p	(29)%	63.8p

Capital Position

	30 June 2020	31 December 2019	Change	30 June 2019
Estimated shareholder Solvency II cover ratio[4,‡#]	**194%**	206%	(12)pp	194%
Estimated Solvency II surplus[4]	**£12.0bn**	£12.6bn	(5)%	£11.8bn
Solvency II net asset value per share[4]	**416p**	423p	(2)%	407p
Solvency II debt leverage[‡]	**33%**	31%	2pp	33%

Dividend

	6 months 2020
Interim dividend per share	**6.00p**

Solvency II basis: Operating capital generation (OCG)[‡#] and Cash remittances[‡#]

	Solvency II Operating capital generation				Cash Remittances			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m	6 months 2020 £m	6 months 2019 £m	Sterling % Change	Full year 2019 £m
Group	**890**	780	14%	2,259	**150**	1,582	(91)%	2,597

Solvency II basis: Operating own funds generation and Return on capital/equity[‡]

	Solvency II Operating own funds generation				Solvency II Return on capital/equity			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m	6 months 2020 %	6 months 2019 %	Change	Full year 2019 %
UK Life and Investments, Savings & Retirement	**356**	449	(21)%	1,314	**5.0%**	6.5%	(1.5)pp	9.5%
General Insurance	**194**	298	(35)%	628	**8.0%**	13.3%	(5.3)pp	14.0%
Europe Life	**217**	304	(29)%	574	**7.1%**	11.0%	(3.9)pp	10.3%
Asia Life	**97**	76	28%	187	**12.7%**	10.4%	2.3pp	12.7%
Group[5]	**632**	864	(27)%	2,257	**7.1%**	11.0%	(3.9)pp	14.3%

Controllable costs[‡]

	6 months 2020 £m	Restated[1,6] 6 months 2019 £m	Sterling % change	Restated[6] Full year 2019 £m
Controllable costs[‡]	**1,912**	1,966	(3)%	4,022

Value of new business: Adjusted Solvency II basis (VNB)[‡] and Present value of new business premiums (PVNBP)

	VNB				PVNBP			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full Year 2019 £m	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full Year 2019 £m
UK Life and Investments, Savings & Retirement	**323**	202	60%	604	**14,386**	12,416	16%	28,836
Europe Life	**188**	237	(21)%	414	**5,425**	7,398	(27)%	13,772
Asia Life	**90**	96	(6)%	206	**1,403**	1,477	(5)%	3,057
Total	**601**	535	12%	1,224	**21,214**	21,291	—	45,665

General insurance combined operating ratio (COR)[‡] and Net written premiums (NWP)

	COR				NWP			
	6 months 2020 %	Restated[1] 6 months 2019 %	Change	Full year 2019 %	6 months 2020 £m	6 months 2019 £m	Sterling % Change	Full year 2019 £m
United Kingdom	**106.3%**	97.2%	9.1pp	97.9%	**2,140**	2,158	(1)%	4,218
Canada	**95.5%**	98.1%	(2.6)pp	97.8%	**1,502**	1,458	3%	3,061
Europe	**92.6%**	92.9%	(0.3)pp	95.7%	**1,099**	1,102	—	2,017
Group[7]	**99.8%**	96.8%	3.0pp	97.5%	**4,748**	4,725	—	9,309

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7 Group includes Asia & Other net written premiums of £7 million *(HY19: £7 million, 2019: £13 million).*

Overview

COVID-19 has been a tragedy for public health and caused significant disruption to peoples' lives and the global economy. I am immensely proud of how our Aviva colleagues responded to the COVID-19 challenge. We moved quickly to expand our remote working capability enabling our colleagues on the front line to maintain strong levels of service for individual and commercial customers throughout the period of restricted movement. Aviva has also played a significant role in helping the community, contributing more than £40 million to support businesses and health services and providing significant additional relief and assistance to customers experiencing financial hardship.

Against this backdrop, Aviva's interim results demonstrate resilience, both in terms of financial strength and performance. This is no accident. Over recent years, Aviva has deliberately built up its financial strength and maintained a prudent and disciplined approach to trading across both underwriting and investing activities. Accordingly, while COVID-19 has weighed on our results, we maintained solid operating capital generation (OCG)[‡#] and operating profit[‡#], and our solvency ratio[‡#] and cash resources remain strong.

Notwithstanding COVID-19, it is imperative that Aviva focuses on unlocking value for our shareholders. For too long, this has proven elusive and meaningful change is required. I am focused on three key areas. First, focusing the portfolio on those businesses that are best positioned and have a right to win in their respective markets. Second, transforming our performance to position Aviva as a best-in-class provider across all our product segments for customers, distributors and shareholders. Third, maintaining and building further on our financial strength to provide resilience, sustainability and flexibility.

We have a long road ahead and much work to do. We will work at pace to deliver the change necessary for Aviva to fulfil its abundant potential.

Strategy

Meaningful change is required to unlock value at Aviva. That is what I will deliver, and to achieve this, I have three priorities.

1. Focus the portfolio

Aviva will focus on those markets or products where we have a right to win, via scale, capability, brand or a compelling proposition for customers. For this reason, today I am announcing that our focus will be on building and extending our leadership in the UK, Ireland and Canada. In these markets, we will invest for growth. Our international businesses in Europe and Asia will be managed for long-term shareholder value. We will build on the good work our teams are doing to grow and optimise their businesses, but where we cannot meet our strategic objectives, we will be decisive and we will withdraw capital.

2. Transform performance

Aviva has fantastic franchises and exceptional long-term relationships with customers and distributors, but these strengths must be translated into superior financial performance for our shareholders. As customer expectations and preferences change, delivering profitable growth will require us to transform customer experiences and provide excellent value for money. We have strong foundations, particularly in the UK where our TNPS and digital metrics are amongst the best in the industry, and increased even further during COVID-19. We must build on these foundations and go further in efficiency and performance management to ensure we are top quartile in both value and profitability.

3. Financial strength

Financial strength, resilience and sustainability will be a critical underpin for our strategy and I am determined this will become a source of relative advantage for Aviva. We have maintained capital strength, built central liquidity and made good progress in reducing debt leverage in recent years. In conjunction with actions to focus the portfolio, our financial flexibility will increase. This will enable us to further strengthen our financial position and will give us optionality to invest in our businesses and provide returns to shareholders.

Next steps

The Board and management team have done a significant amount of work on strategy and it is now time for decisions and actions to be taken. I will work at pace and make the difficult choices necessary and will report back to shareholders as we make tangible progress.

Dividends

On the 8th of April 2020, Aviva announced the withdrawal of its final dividend for 2019 for ordinary shareholders. This decision was not taken lightly by the Board, which recognises the importance of the dividend to our shareholders. However, in view of the extreme uncertainty prevailing at the time, and clear regulatory guidance, the Board agreed that preserving capital and liquidity was in the best interest of long-term shareholder value.

The Board has regularly reviewed the impact of COVID-19 on our capital, liquidity, insurance claims, investment performance and outlook for the broader economy. While there is considerable uncertainty in the economic outlook that warrants continued attention, the Board notes operational and financial performance has been resilient and capital and liquidity remain strong, the latter also benefiting from completion of the sale of Friends Provident International Limited.

Accordingly, following its evaluation, the Board has declared a second interim dividend in respect of the 2019 financial year of 6 pence per share. This strikes a balance between paying income to our ordinary shareholders while continuing to preserve additional strength in our capital and liquidity positions.

While the Board continues to monitor the impact of COVID-19 and the economic outlook carefully and with appropriate prudence, we have decided to take the opportunity to review our longer term dividend policy, in light of our strategic priorities and the future shape of the group, with the objective of a sustainable pay-out and lower leverage. We will update shareholders on all dividend matters, including the 2019 final dividend in the fourth quarter.

Group financial headlines

Resilient performance

Our interim results clearly reflect the challenges COVID-19 has brought in terms of increased insurance claims, reduced customer activity levels, lower asset values and additional expenditure on operational readiness and risk management initiatives. However, the results also demonstrate some of the fundamental strengths of our businesses and our disciplined and effective response during what was a period of extreme uncertainty and disruption.

IFRS results

Operating profit[1,2,‡#] was £1,225 million *(HY19: £1,386 million)* while basic earnings per share fell to 20.0 pence *(HY19 28.2 pence)*. Excluding COVID-19 impacts on general insurance claims (£(165) million), operating profit was flat year on year, with strong results in UK annuities and the continued recovery in our Canadian results offset by higher weather claims across our general insurance businesses and additional expenditure related to community support initiatives.

Return on equity (RoE)[3,‡]

RoE[3,‡] declined to 7.1% *(HY19: 11.0%)*, due to a 1.8% adverse impact of COVID-19 and lower management actions, which contributed £53 million or 0.6% in the first half of 2020 *(HY19: 3.9%)*. Looking through the COVID-19 impact, underlying RoE increased by 1.7% benefiting from strong new business growth in UK Life. This was partially offset by deliberately tempered sales in Europe in the low interest rate environment, challenging conditions for Aviva Investors and increased weather claims in general insurance.

Operating capital generation (OCG)[‡#]

OCG[‡#] increased to £890 million *(HY19: £780 million)*. Underlying OCG fell to £534 million *(HY19: £679 million)*, which included a £258 million negative impact from COVID-19 general insurance claims and associated increase in SCR. Total OCG benefited from £356 million of management actions *(HY19: £101 million)* including initiatives that reduced SCR such as de-risking, asset allocation and hedging actions taken in response to COVID-19, and planned changes to internal reinsurance arrangements.

Capital and cash

Solvency II capital

At 30 June 2020, Aviva's solvency surplus[4] was £12.0 billion and cover ratio[4,‡#] 194% *(FY19: £12.6 billion and 206% respectively)*. Solvency II net asset value per share[4] was 416 pence *(2019: 423 pence)*. Operating capital generated (OCG)[‡#] during the first half was more than offset by capital market movements primarily in relation to lower Government bond yields and widening of credit spreads on corporate bonds plus allowances for potential future credit rating migration in our corporate bond portfolio and reductions in future UK property values.

Corporate credit rating migration

Our corporate bond rating migration allowance includes a "full letter" rating downgrade for 10% of corporate bonds rated BBB and 5% of corporate bonds rated A or above. During the first half, we experienced no defaults, only 0.2% of the portfolio was downgraded below investment grade and c4% of the portfolio rated A or above had been downgraded to a lower letter. We will maintain the prudent allowance for rating migration in our capital position in the second half, during which we will revert to actual experience.

Commercial mortgage portfolio

In our commercial mortgage portfolio, asset quality fundamentals remain strong although as foreshadowed in our update on the 21st of May, slight deterioration has been seen in some metrics. The average loan to value (LTV) ratio across the portfolio remains low at 59% *(2019: 56%)*, loans in arrears were £95 million *(2019: nil)*, equivalent to 1.25% of the portfolio, and the loan interest cover ratio is strong at 2.75x *(2019: 2.90x)*.

Centre liquidity and cash remittances[‡#]

At 31 July 2020, centre liquidity was £2.5 billion *(February 2020: £2.4 billion)*. Cash remittances[‡#] during the first half of 2020 were £150 million, significantly down on the prior year comparative of £1,582 million. We did not seek to remit cash from our local subsidiaries in the first half given the unprecedented economic and market uncertainty related to COVID-19 and in view of regulatory guidance. In July, we completed the sale of Friends Provident International Limited, receiving £0.2 billion of cash, as expected in our remittance targets.

Debt leverage[‡]

In the first half, Aviva issued £500 million of tier 2 subordinated debt and in July we redeemed £500 million of tier 1 securities. As a result, core structural debt is unchanged relative to year end. The leverage ratio increased to 32%[5] *(2019: 31%)* due to a £0.1 billion increase in commercial paper and foreign exchange movements on debt denominated in foreign currency.

Business performance highlights

Our businesses began the year strongly and adapted well as COVID-19 caused disruption to our customers. The impact of COVID-19 was broad-based and affected new business volumes across many markets and products, particularly during the second quarter when lockdown measures were at their most extreme. However, our digital capability, well-developed home-working structures and long-term relationships with customers and distributors meant the effect on our performance was manageable.

COVID-19 also required us to adapt our approach to efficiency initiatives. While some projects planned for this year were deferred or cancelled and overheads were reduced in areas including travel, expenditure increased to accelerate remote working capability and we contributed £43 million towards community support initiatives. At our full year results, we indicated our expectation that in-year cost savings relative to the 2018 baseline would be £150 million including absorbing inflation: based on our first half trends, we expect to beat that estimate.

UK Life and Investments, Savings & Retirement (IS&R)

Headline results

In UK Life and IS&R, OCG[‡#] increased 11% to £581 million *(HY19: £522 million)* and Solvency II return on capital[4] fell to 5.0% *(HY19: 6.5%)*. UK Life including Savings & Retirement operating profit[2,6,‡#] rose 9% to £817 million *(HY19: £752 million)*, while Aviva Investors operating profit was £35 million *(HY19: £60 million)*.

COVID-19 impacts

Our UK Life operating profit[2,6,‡#] included a £25 million provision relating to the expected impact of higher mortality and morbidity experience in our protection and annuity portfolios. This provision is being held outside of the product segments in the first half, though this will be updated in the second half when assumptions are aligned to actual experience. At 30 June, total claims paid in relation to COVID-19 in our protection portfolio were £36 million gross, and £16 million net of reinsurance.

COVID-19 also affected our UK Life and IS&R results through lower asset values and disruption to new business activity, although a very strong first quarter and successful execution in bulk purchase annuities (BPA) helped to deliver healthy levels of new business sales and net inflows.

Annuities & Equity Release

New business sales rose 73% to £3.8 billion *(HY19: £2.2 billion)* while value of new business (VNB) [‡] increased fivefold to £173 million *(HY19: £33 million)* reflecting favourable trends in the BPA annuity market, with strong demand and attractive pricing. The BPA market has been less affected by COVID restrictions and our deal pipeline remains strong, although pricing and competitive intensity had returned to more normal levels by the end of the first half.

Health & Protection

New business rose 12% to £1.3 billion *(HY19: £1.2 billion)*. Despite disruption caused by COVID-19, a strong first quarter performance helped deliver modest growth in individual and group protection while higher sales to large corporate customers drove a 37% increase in health insurance. VNB[‡] from health and protection fell 13% to £80 million *(HY19: £92 million)* as market competition continued to weigh on margins.

Savings & Retirement

Net flows[7] increased 28% to £4.2 billion *(HY19: £3.2 billion)* with positive trends in both the workplace and retail platforms. After a very strong start to the year, there was a lull in new business in April and early May though we have begun to see a rebound in customer activity. Retention remained strong with an annualised lapse rate of 6% of opening assets under administration. Assets under administration ended the first half at £113 billion *(2019: £113 billion)* with positive net flows offset by adverse market movements.

Aviva Investors

Aviva Investors operating profit[2,6,‡#] declined to £35 million *(HY19: £60 million)* due to capital market weakness, de-risking of asset strategies by internal clients and lower levels of private asset origination activity. However, AI maintained the positive customer momentum achieved in the second half of 2019 and has further diversified its third party book. It generated net positive external client flows of £1.3 billion in the period *(HY19: £(0.9) billion)*, driven by significant new business wins in the UK and North America.

General Insurance

Headline results

In General Insurance, operating profit[2,8,‡#] was £167 million *(HY19: £332 million)*, OCG[‡#] declined 24%[9] to £163 million *(HY19: £216 million)* and Solvency II return on capital[4] fell to 8.0% *(HY19: 13.3%)*.

COVID-19 impacts

The impact of COVID-19 on general insurance claims net of reinsurance was £(165) million. This incorporates notified and expected future claims in relation to business interruption, other commercial lines and travel insurance and allows for £216 million of offsetting favourable impacts in other product lines as a result of reduced economic activity.

Our group COVID-19 event estimate remains consistent with that disclosed on 21st of May, however we reiterate the continued uncertainty with this estimate reflecting the rate of new infections and potential changes in Government response. There is also potential for volatility in future underwriting results as customers and the insurance industry adapt to the post-COVID environment.

Net written premiums (NWP)

NWP was flat year on year at £4.7 billion *(HY19: £4.7 billion)* with modest (2%[9]) growth in Canada, stable trends in Europe and a slight (1%) decline in the UK. COVID-19 had a dampening effect on premium volumes as Government enforced restrictions reduced demand and this may continue depending on the economic effects from COVID-19.

Looking through COVID-19 impacts, we continued to reshape our business. In commercial lines, NWP grew 8% in the UK and 11%[9] in Canada due to positive volume and rate trends in Global Corporate and Specialty. In personal lines, NWP declined 8% in the UK where retail own brands proved more resilient than intermediated channels reliant on footfall.

Combined operating ratio (COR)[2,‡]

The group general insurance COR[2,‡] increased 3 percentage points to 99.8% *(HY19: 96.8%)*. The drivers of the increased group COR included:

- Net COVID-19 claims of £(165) million, equating to a 3.6 percentage point impact on COR; and
- Higher weather costs, which were 0.2% above long-term average in the first half *(HY19: 1.7% below long-term average)*. All regions experienced increased weather costs compared with the benign prior year, with flooding and hailstorms in Canada and winter storms in the UK having a notable impact.

In the UK, COR was 106.3%, representing a 9.1 percentage point increase compared with the prior year due to COVID-19 claims and an increase in weather costs. In contrast, Canada continued to improve with its COR declining to 95.5% *(HY19: 98.1%)* despite adverse impacts from COVID-19 and Europe maintained its strong performance with a COR of 92.6% *(HY19: 92.9%)*.

Longer term investment return (LTIR)

General insurance LTIR declined to £173 million *(HY19: £184 million)* as lower bond yields and changes in portfolio composition pushed the average investment return down to 2.3% *(HY19: 2.6%)*. We took de-risking actions on the portfolio during the first half, increasing cash holdings by more than £1 billion, and reducing our exposure to equities and other assets such as investment funds by £0.2 billion and £0.4 billion respectively.

International Life

Headline results

Our European Life businesses delivered operating profit[2,8,‡#] of £367 million *(HY19: £392 million)*, down 6% in constant currency terms. OCG[‡#] increased 45% to £464 million *(HY19: £324 million)* and Solvency II return on capital[4] fell to 7.1% *(HY19: 11.0%)*.

In Asia, operating profit was £140 million *(HY19: £152 million)*. Excluding Friends Provident International, whose sale was completed in July 2020, Asia operating profit increased 1% in constant currency to £67 million *(HY19: £68 million)*. OCG from Asia more than doubled to £43 million *(HY19: £18 million)* while Solvency II return on capital rose to 12.7% *(HY19: 10.4%)*.

COVID-19 impacts

The direct impact of COVID-19 on profitability in our International life businesses was £14 million, primarily resulting from adverse experience in our French protection portfolio. Other impacts included lower investment values impacting fee income, and the cost associated with de-risking and hedging actions as we responded to capital market volatility. Lockdowns also disrupted new business activity, although this was mitigated by robust remote servicing of customers and distributors.

Despite COVID-19, we continued to make good progress on optimising business mix to reduce capital intensity given the low (and negative) interest rate environment in Europe. We will continue to make active decisions about our volume and mix appetite and overall level of capital allocation in conjunction with our strategy of managing our international life businesses for long-term shareholder value.

France

New business declined 20%[9] to £2.2 billion *(HY19: £2.7 billion)* while VNB[‡] rose 6%[9] to £100 million *(HY19: £95 million)*. Our focus on shifting new business toward capital-light savings gathered further momentum in the first half. Unit linked sales rose 44% helped by strong demand for pensions and property linked funds while our efforts to actively manage down with-profits sales drove a 47% decline in volumes. Operating profit[2,8,‡#] was affected by adverse experience in protection claims, declining 16%[9] to £165 million *(HY19: £195 million)*.

Italy

Italian new business sales declined 38%[9] to £2.1 billion *(HY19: £3.5 billion)* and VNB[‡] fell 49%[9] to £51 million *(HY19: £99 million)*. As with France, we continued to actively manage down with-profits sales, which halved year-on-year. Despite lower sales, the benefits of previous strength in new business volumes and therefore asset growth were reflected in operating profit[2,8,‡#], which increased 20%[9] to £100 million.

Poland & Other Europe

In Poland, new business sales declined 23%[9] to £234 million *(HY19: £307 million)* while VNB[‡] fell 14%[9] to £26 million *(HY19: £31 million)*. Lockdown measures had a more meaningful impact on Polish sales due in part to closure of branches by our bancassurance partners. Despite lower sales, operating profit[2,8,‡#] increased 5%[9] in Poland owing to expense reductions. In our other European markets of Ireland and Turkey, new business sales were broadly stable in constant currency terms at £891 million *(HY19: £913 million)* with strong pension sales in Ireland offsetting COVID related disruptions.

Singapore

New business sales fell 4%[9] to £693 million *(HY19: £724 million)*. VNB[‡] rose 2%[9] to £72 million *(HY19: £71 million)*. Lockdown measures restricted sales activities across multiple channels in Singapore, particularly in the second quarter when a number of sales campaigns were planned for higher margin protection sales. Nonetheless, there was still a favourable movement in product mix with protection sales up 13% compared with an 18% decline in with-profits.

Outlook

Aviva has responded well to the COVID-19 challenge and is well positioned as customers look for trusted brands, good value, and convenient, reliable service.

However, we are under no illusions that the COVID-19 challenges are behind us. We are all still living with COVID-19 and a return to normality is likely to remain some way off. The recent global economic downturn is unprecedented and the fiscal response by Governments around the world has been extraordinary. As protective measures are eased and Government support withdrawn, economic headwinds and capital market volatility are likely to persist. As a result, any recovery in customer activity is likely to be gradual and we will continue to be prudent in managing our businesses and capital resources.

This means uncertainty in the outlook will persist in the near term and may mean that growth and profitability targets will be harder to deliver. However, as demonstrated in our first half results, Aviva is operationally and financially resilient. As we deliver on our priorities of focusing the portfolio, transforming performance and building on our financial strength, we will unlock value for shareholders.

‡ Denotes Alternative Performance Measures (APMs) which are key performance indicators of the Group used to measure our performance and financial strength. Further details of this measure are included in the 'Other information' section of the Analyst Pack.

# Denotes key performance indicators which are used by the Group to determine or modify remuneration. Further details of this measure are included in the 'Other information' section of the Analyst Pack.

1 Group adjusted operating profit is a non-GAAP APM which is not bound by the requirements of IFRS. Further details of this measure are included in the 'Other information' section of the Analyst Pack.

2 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2 of the Analyst Pack). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit. Following the change in the definition of Group adjusted operating profit, COR, controllable costs and operating earnings per share were also restated to include the amortisation and impairment of internally generated intangible assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in prior period COR of 0.9%, an increase in prior period controllable costs of £62 million and a reduction in prior period operating earnings per share of 1.2 pence.

3 Includes Group centre, debt costs and other items not allocated to the markets.

4 The estimated Solvency II position represents the shareholder view only. See section 3 of the Analyst Pack for more details.

5 Excluding the direct capital instrument, which was redeemed in full at first call date on 27 July 2020.

6 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been amended to reclassify net interest expense from UK Life including Savings & Retirement to Group debt costs and other interest of £32 million for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit. In addition, comparative amounts for operating capital generation of £34 million for the 6 month period ended 30 June 2019 and £69 million for the year ended 31 December 2019 have been restated. The change has no impact on the Group's operating capital generation.

7 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further details of this measure are included in the 'Other information' section of the Analyst Pack.

8 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations of Europe and Asia to their respective market segments to better reflect the management of the underlying businesses.

9 On a constant currency basis.

Notes to editors

All comparators are for the half year 2019 position unless otherwise stated.

Income and expenses of foreign entities are translated at average exchange rates while their assets and liabilities are translated at the closing rates on 30 June 2020. The average rates employed in this announcement are 1 euro = £0.88 *(6 months to 30 June 2019: 1 euro = £0.88)* and CAD$1 = £0.58 *(6 months to 30 June 2019: CAD$1 = £0.58)*.

Growth rates in the press release have been provided in sterling terms unless stated otherwise. The following supplement presents this information on both a sterling and constant currency basis.

Cautionary statements:

This should be read in conjunction with the documents distributed by Aviva plc (the "Company" or "Aviva") through the Regulatory News Service (RNS). This announcement contains, and we may make other verbal or written "forward-looking statements" with respect to certain of Aviva's plans and current goals and expectations relating to future financial condition, performance, results, strategic initiatives and objectives. Statements containing the words "believes", "intends", "expects", "projects", "plans", "will," "seeks", "aims", "may", "could", "outlook", "likely", "target", "goal", "guidance", "trends", "future", "estimates", "potential" and "anticipates", and words of similar meaning, are forward-looking. By their nature, all forward-looking statements involve risk and uncertainty. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. Aviva believes factors that could cause actual results to differ materially from those indicated in forward-looking statements in the announcement include, but are not limited to: the impact of ongoing difficult conditions in the global financial markets and the economy generally; the impact of simplifying our operating structure and activities; the impact of various local and international political, regulatory and economic conditions; market developments and government actions (including those arising from the referendum on UK membership of the European Union); the effect of credit spread volatility on the net unrealised value of the investment portfolio; the effect of losses due to defaults by counterparties, including potential sovereign debt defaults or restructurings, on the value of our investments; changes in interest rates that may cause policyholders to surrender their contracts, reduce the value of our portfolio and impact our asset and liability matching; the impact of changes in short or long-term inflation; the impact of changes in equity or property prices on our investment portfolio; fluctuations in currency exchange rates; the effect of market fluctuations on the value of options and guarantees embedded in some of our life insurance products and the value of the assets backing their reserves; the amount of allowances and impairments taken on our investments; the effect of adverse capital and credit market conditions on our ability to meet liquidity needs and our access to capital; changes in, or restrictions on, our ability to initiate capital management initiatives; changes in or inaccuracy of assumptions in pricing and reserving for insurance business (particularly with regard to mortality and morbidity trends, lapse rates and policy renewal rates), longevity and endowments; a cyclical downturn of the insurance industry; the impact of natural and man-made catastrophic events (including the impact of COVID-19) on our business activities and results of operations; our reliance on information and technology and third-party service providers for our operations and systems; the inability of reinsurers to meet obligations or unavailability of reinsurance coverage; increased competition in the UK and in other countries where we have significant operations; the impact of actual experience differing from estimates used in valuing and amortising deferred acquisition costs ("DAC") and acquired value of in-force business ("AVIF"); the impact of recognising an impairment of our goodwill or intangibles with indefinite lives; changes in valuation methodologies, estimates and assumptions used in the valuation of investment securities; the effect of legal proceedings and regulatory investigations; the impact of operational risks, including inadequate or failed internal and external processes, systems and human error or from external events (including cyber attack); risks associated with arrangements with third parties, including joint ventures; our reliance on third-party distribution channels to deliver our products; funding risks associated with our participation in defined benefit staff pension schemes; the failure to attract or retain the necessary key personnel; the effect of systems errors or regulatory changes on the calculation of unit prices or deduction of charges for our unit-linked products that may require retrospective compensation to our customers; the effect of fluctuations in share price as a result of general market conditions or otherwise; the effect of simplifying our operating structure and activities; the effect of a decline in any of our ratings by rating agencies on our standing among customers, broker-dealers, agents, wholesalers and other distributors of our products and services; changes to our brand and reputation; changes in government regulations or tax laws in jurisdictions where we conduct business, including decreased demand for annuities in the UK due to changes in UK law; the inability to protect our intellectual property; the effect of undisclosed liabilities, integration issues and other risks associated with our acquisitions; and the timing/regulatory approval impact, integration risk and other uncertainties, such as non-realisation of expected benefits or diversion of management attention and other resources, relating to announced acquisitions and pending disposals and relating to future acquisitions, combinations or disposals within relevant industries; the policies, decisions and actions of government or regulatory authorities in the UK, the EU, the US or elsewhere, including the implementation of key legislation and regulation. For a more detailed description of these risks, uncertainties and other factors, please see 'Other information – Shareholder Information – Risks relating to our business' in Aviva's most recent Annual Report. Aviva undertakes no obligation to update the forward-looking statements in this announcement or any other forward-looking statements we may make. Forward-looking statements in this presentation are current only as of the date on which such statements are made.

Aviva plc is a company registered in England No. 2468686.
Registered office
St Helen's
1 Undershaft
London
EC3P 3DQ

Contacts

Investor contacts	Media contacts	Timings
Chris Esson +44 (0)20 7662 8115 Diane Michelberger +44 (0)20 7662 0911	Andrew Reid +44 (0)20 7662 3131 Sarah Swailes +44 (0)20 7662 6700	Presentation slides: 0700 hrs BST www.aviva.com Real time media conference call: 0745 & 1115 hrs BST Analyst conference call / audiocast: 0830 hrs BST https://www.aviva.com/

Contents

As a reminder

Throughout this report we use a range of financial metrics to measure our performance and financial strength. These metrics include Alternative Performance Measures (APMs), which are non-GAAP measures that are not bound by the requirements of IFRS and Solvency II. Further guidance in respect of the APM's used by the Group, including a reconciliation to the financial statements (where possible), can be found within the Other Information section.

All references to 'Operating profit' represent 'Group adjusted operating profit'.

‡ denotes APMs which are key performance indicators. Following a review of the Group's APM's in 2019, we have made certain changes to ensure that they remain relevant and useful to shareholders. These changes are outlined within the Other Information section.

symbol denotes key financial performance indicators used as a base to determine or modify remuneration.

All percentages, including currency movements, are calculated on unrounded numbers so minor rounding differences may exist.

Following the announcement at the November 2019 Capital Markets Day, Section 6.i – UK Life and Investments, Savings & Retirement includes additional disclosures on the Savings & Retirement business.

A glossary explaining key terms used in this report is available on www.aviva.com/glossary

Profit

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Sterling % change	Full year 2019 £m
Operating profit[2,‡#]	**1,225**	1,386	(12)%	3,184
Operating earnings per share[2,3‡#]	**23.4p**	26.1p	(10)%	60.5p
IFRS profit before tax attributable to shareholders	**1,076**	1,523	(29)%	3,374
Basic earnings per share	**20.0p**	28.2p	(29)%	63.8p

Capital Position

	30 June 2020	31 December 2019	Change	30 June 2019
Estimated shareholder Solvency II cover ratio[4,‡#]	**194%**	206%	(12)pp	194%
Estimated Solvency II surplus[4]	**£12.0bn**	£12.6bn	(5)%	£11.8bn
Solvency II net asset value per share[4]	**416p**	423p	(2)%	407p
Solvency II debt leverage[‡]	**33%**	31%	2pp	33%

Dividend

	6 months 2020
Interim dividend per share	**6.00p**

Solvency II basis: Operating capital generation (OCG)[‡#] and Cash remittances[‡#]

	Solvency II Operating capital generation				Cash Remittances			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m
Group	**890**	780	14%	2,259	**150**	1,582	(91)%	2,597

Solvency II basis: Operating own funds generation and Return on capital/equity[‡]

	Solvency II Operating own funds generation				Solvency II Return on capital/equity			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m	6 months 2020 %	6 months 2019 %	Change	Full year 2019 %
UK Life and Investments, Savings & Retirement	**356**	449	(21)%	1,314	**5.0%**	6.5%	(1.5)pp	9.5%
General Insurance	**194**	298	(35)%	628	**8.0%**	13.3%	(5.3)pp	14.0%
Europe Life	**217**	304	(29)%	574	**7.1%**	11.0%	(3.9)pp	10.3%
Asia Life	**97**	76	28%	187	**12.7%**	10.4%	2.3pp	12.7%
Group[5]	**632**	864	(27)%	2,257	**7.1%**	11.0%	(3.9)pp	14.3%

Controllable costs[‡]

	6 months 2020 £m	Restated[1,6] 6 months 2019 £m	Sterling % change	Restated[6] Full year 2019 £m
Controllable costs[‡]	**1,912**	1,966	(3)%	4,022

Value of new business: Adjusted Solvency II basis (VNB)[‡] and Present value of new business premiums (PVNBP)

	VNB				PVNBP			
	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full Year 2019 £m	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full Year 2019 £m
UK Life and Investments, Savings & Retirement	**323**	202	60%	604	**14,386**	12,416	16%	28,836
Europe Life	**188**	237	(21)%	414	**5,425**	7,398	(27)%	13,772
Asia Life	**90**	96	(6)%	206	**1,403**	1,477	(5)%	3,057
Total	**601**	535	12%	1,224	**21,214**	21,291	—	45,665

General insurance combined operating ratio (COR)[‡] and Net written premiums (NWP)

	COR				NWP			
	6 months 2020 %	Restated[1] 6 months 2019 %	Change	Full year 2019 %	6 months 2020 £m	6 months 2019 £m	Sterling % change	Full year 2019 £m
United Kingdom	**106.3%**	97.2%	9.1pp	97.9%	**2,140**	2,158	(1)%	4,218
Canada	**95.5%**	98.1%	(2.6)pp	97.8%	**1,502**	1,458	3%	3,061
Europe	**92.6%**	92.9%	(0.3)pp	95.7%	**1,099**	1,102	—	2,017
Group[7]	**99.8%**	96.8%	3.0pp	97.5%	**4,748**	4,725	—	9,309

‡ Denotes Alternative Performance Measures (APMs) which are key performance indicators of the Group. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
# Denotes key performance indicators which are used by the Group to determine or modify remuneration. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit. Following the change in the definition of Group adjusted operating profit, COR, controllable costs and operating earnings per share were also restated to include the amortisation and impairment of internally generated intangible assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in prior period COR of 0.9%, an increase in prior period controllable costs of £62 million and a reduction in prior period operating earnings per share of 1.2 pence.
2 Group adjusted operating profit is a non-GAAP APM which is not bound by the requirements of IFRS. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
3 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other information' section of the Analyst Pack.
4 The estimated Solvency II position represents the shareholder view only. See section 3 for more details.
5 Includes Group centre, debt costs and other items not allocated to the markets.
6 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £41 million for the 6 month period ended 30 June 2019 and £83 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to the Life & Health businesses from the UK, Ireland and Poland in controllable costs.
7 Group includes Asia & Other net written premiums of £7 million *(HY19: £7 million, 2019: £13 million)*.

1 – Solvency II return on capital/equity‡

Solvency II return on capital/equity was introduced at our Capital Markets Day in November 2019 to measure return generated on shareholder capital at business division and Group level and is used by the Group to assess performance and growth, as we look to deliver long-term value for our shareholders.

6 months 2020	Operating own funds generation New business (life) £m	Existing business (life) £m	Non-life capital generation £m	Other[1] £m	Total £m	Opening own funds £m	Return on capital/equity %
UK Life and Investments, Savings & Retirement	**225**	**92**	**26**	**13**	**356**	**14,126**	**5.0%**
General Insurance	**—**	**—**	**191**	**3**	**194**	**4,827**	**8.0%**
Europe Life	**87**	**91**	**—**	**39**	**217**	**6,119**	**7.1%**
Asia Life	**49**	**56**	**—**	**(8)**	**97**	**1,524**	**12.7%**
Group centre costs and Other	**—**	**(4)**	**(90)**	**6**	**(88)**	**(2,048)**	**N/A**
Solvency II return on capital (unlevered) at 30 June	**361**	**235**	**127**	**53**	**776**	**24,548**	**6.3%**
Less: Senior debt					**(6)**	**—**	**—**
Subordinated debt					**(138)**	**(6,942)**	**—**
Solvency II operating own funds generation at 30 June					**632**		
Direct capital instrument and Tier 1 notes					**(27)**	**(500)**	**—**
Preference shares[2]					**(19)**	**(450)**	**—**
Net deferred tax assets					**—**	**(78)**	**—**
Solvency II return on equity at 30 June					**586**	**16,578**	**7.1%**
Less: Management actions and other[1]					**(53)**	**—**	**(0.6)%**
Solvency II return on equity (excl. management actions)					**533**	**16,578**	**6.5%**

1 Other includes the impact of capital actions and non-economic assumption changes.
2 Preference shares includes £9 million of dividends and £250 million of capital in respect of General Accident plc.

6 months 2019	Operating own funds generation New business (life) £m	Existing business (life) £m	Non-life capital generation £m	Other[1] £m	Total £m	Opening own funds £m	Return on capital/equity %
UK Life and Investments, Savings & Retirement	130	76	49	194	449	13,835	6.5%
General Insurance	—	—	298	—	298	4,498	13.3%
Europe Life	116	79	—	109	304	5,548	11.0%
Asia Life	59	11	—	6	76	1,470	10.4%
Group centre costs and Other	—	7	(119)	(12)	(124)	(1,800)	N/A
Solvency II return on capital (unlevered) at 30 June	305	173	228	297	1,003	23,551	8.5%
Less: Senior debt					(6)	—	—
Subordinated debt					(133)	(6,979)	—
Solvency II operating own funds generation at 30 June					864		
Direct capital instrument and Tier 1 notes					(6)	(731)	—
Preference shares[2]					(19)	(450)	—
Net deferred tax assets					—	(95)	—
Solvency II return on equity at 30 June					839	15,296	11.0%
Less: Management actions and other[1]					(297)	—	(3.9)%
Solvency II return on equity (excl. management actions)					542	15,296	7.1%

1 Other included the impact of capital actions and non-economic assumption changes.
2 Preference shares included £9 million of dividends and £250 million of capital in respect of General Accident plc.

Solvency II return on capital/equity continued

1 – Solvency II return on capital/equity‡ continued

Full year 2019	New business (life) £m	Existing business (life) £m	Non-life capital generation £m	Other[1] £m	Total £m	Opening own funds £m	Return on capital/equity %
	Operating own funds generation						
UK Life and Investments, Savings & Retirement	381	194	70	669	1,314	13,835	9.5%
General Insurance	—	—	548	80	628	4,498	14.0%
Europe Life	167	240	—	167	574	5,548	10.3%
Asia Life	111	57	—	19	187	1,470	12.7%
Group centre costs and Other	—	16	(187)	9	(162)	(1,800)	N/A
Solvency II return on capital (unlevered) at 31 December	659	507	431	944	2,541	23,551	10.8%
Less: Senior debt					(12)	—	—
Subordinated debt					(272)	(6,979)	—
Solvency II operating own funds generation at 31 December					2,257		
Direct capital instrument and Tier 1 notes					(34)	(731)	—
Preference shares[2]					(38)	(450)	—
Net deferred tax assets					—	(95)	—
Solvency II return on equity at 31 December					2,185	15,296	14.3%
Less: Management actions and other[1]					(944)	—	(6.2)%
Solvency II return on equity (excl. management actions)					1,241	15,296	8.1%

1 Other included the impact of capital actions and non-economic assumption changes.
2 Preference shares included £21 million of dividends and £250 million of capital in respect of General Accident plc.

In line with targets presented at Capital Markets Day (and how capital is managed by the business), we have presented a combined Solvency II return on capital for the UK Life and Investments, Savings & Retirement business divisions.

Solvency II return on equity has decreased by 3.9pp to 7.1% *(HY19: 11.0%)*, primarily due to:
- In UK Life and Investments, Savings & Retirement, return on capital has reduced by 1.5pp to 5.0% *(HY19: 6.5%)* and own funds generation has reduced by £93 million to £356 million. Improved new business operating own funds generation as a result of increased bulk purchase annuity volumes and higher margins was more than offset by less benefit from management actions on own funds in the first half of 2020 and reduced fee income from Aviva Investors.
- In the General Insurance business division, return on capital has reduced by 5.3pp to 8.0% *(HY19: 13.3%)* and own funds generation has reduced by £104 million to £194 million mainly due to a £153 million reduction driven by the impact of COVID-19 which resulted in additional claims on business interruption and travel lines, partly offset by reduced motor claims. In the UK there is also a reduction due to higher weather costs compared to the prior period and adverse prior year reserve developments. This is partially offset by strong underlying performance in Canada where benefits from the extensive profit remediation plan put in place towards the end of 2017 are materialising.
- In the Europe Life business division, return on capital has reduced by 3.9pp to 7.1% *(HY19: 11.0%)* and own funds generation has reduced by £87 million to £217 million. The reduction is primarily due to lower new business volumes reflecting managed reductions in with-profit volumes as well as a reduction due to the impacts of COVID-19 on trading and less benefit from management actions than the first half of 2019 which included favourable modelling and assumption changes in Italy.
- In the Asia Life business division, return on capital has increased by 2.3pp to 12.7% *(HY19: 10.4%)* and own funds generation has increased by £21 million to £97 million. The strong growth was primarily driven by improvements to morbidity experience on health business and lapse experience on protection business in Singapore.
- In addition, the return on equity has reduced by a further 0.9pp due to the higher opening own funds for 2020 which were driven by strong own funds generation in excess of dividends and debt repayments during 2019.

2 – Solvency II capital and cash

2.i – Operating capital generation: Solvency II basis‡#

Solvency II operating capital generation (OCG) measures the amount of Solvency II capital the Group generates from operating activities. Capital generated enhances Solvency II surplus which can be used to support sustainable cash remittances from our business, which in turn, supports the Group's progressive dividend policy.

6 months 2020	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Other OCG[1] £m	Total OCG £m	Own funds OCG £m	SCR OCG £m
	Operating capital generation‡#					Of which:	
UK Life and Investments, Savings & Retirement	**(15)**	**358**	**23**	**215**	**581**	**356**	**225**
General Insurance	**—**	**—**	**114**	**49**	**163**	**194**	**(31)**
Europe Life	**(38)**	**263**	**—**	**239**	**464**	**217**	**247**
Asia Life	**1**	**51**	**—**	**(9)**	**43**	**97**	**(54)**
Total market Solvency II operating capital generation	**(52)**	**672**	**137**	**494**	**1,251**	**864**	**387**
Group centre costs and Other	**—**	**2**	**(225)**	**(138)**	**(361)**	**(232)**	**(129)**
Total Group Solvency II operating capital generation	**(52)**	**674**	**(88)**	**356**	**890**	**632**	**258**

1 Other includes the impact of capital actions and non-economic assumption changes.

6 months 2019	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Other OCG[1] £m	Total OCG £m	Own funds OCG £m	SCR OCG £m
	Operating capital generation‡#					Of which:	
UK Life and Investments, Savings & Retirement[2]	(91)	414	75	124	522	449	73
General Insurance	—	—	315	(99)	216	298	(82)
Europe Life	(37)	236	—	125	324	304	20
Asia Life	23	1	—	(6)	18	76	(58)
Total market Solvency II operating capital generation	(105)	651	390	144	1,080	1,127	(47)
Group centre costs and Other[2]	—	2	(259)	(43)	(300)	(263)	(37)
Total Group Solvency II operating capital generation	(105)	653	131	101	780	864	(84)

1 Other included the impact of capital actions and non-economic assumption changes.
2 Following a review of the presentation of intercompany loan interest, comparative amounts for the 6 months ended 30 June 2019 have been amended to reclassify net interest expense from UK Life and Investments, Savings & Retirement to Group centre costs and Other of £34 million as a non-operating item. The change has no impact on the Group's operating capital generation.

Full year 2019	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Other OCG[1] £m	Total OCG £m	Own funds OCG £m	SCR OCG £m
	Operating capital generation‡#					Of which:	
UK Life and Investments, Savings & Retirement[2]	(45)	814	90	470	1,329	1,314	15
General Insurance	—	—	615	(41)	574	628	(54)
Europe Life	(189)	515	—	428	754	574	180
Asia Life	(7)	64	—	3	60	187	(127)
Total market Solvency II operating capital generation	(241)	1,393	705	860	2,717	2,703	14
Group centre costs and Other[2]	—	(5)	(419)	(34)	(458)	(446)	(12)
Total Group Solvency II operating capital generation	(241)	1,388	286	826	2,259	2,257	2

1 Other included the impact of capital actions and non-economic assumption changes.
2 Following a review of the presentation of intercompany loan interest, comparative amounts for the 12 months ended 31 December 2019 have been amended to reclassify net interest expense from UK Life and Investments, Savings & Retirement to Group centre costs and Other of £69 million as a non-operating item. The change has no impact on the Group's operating capital generation.

Solvency II OCG was £890 million for the 6 months ended 30 June 2020 *(HY19: £780 million)*.

UK Life and Investments, Savings & Retirement OCG has increased by £59 million to £581 million for the 6 months ended 30 June 2020, primarily due to improved new business strain as a result of higher margins on annuity business and also a capital action to change the mix of business included in our internal reinsurance vehicle. The increase is partially offset by a reduction in earnings from existing business and a reduced contribution from Aviva Investors.

General Insurance OCG has reduced by £53 million to £163 million for the 6 months ended 30 June 2020, driven by the impact of COVID-19 which resulted in additional claims on business interruption and travel lines and an increase in solvency capital requirement which were partly offset by reduced motor claims. There was a further reduction to OCG due to higher weather costs compared to the prior period and adverse prior year reserves development in the UK partially offset by a strong performance in Canada as a result of rate increases and actions on indemnity management taken as part of the profit remediation plan.

Europe Life OCG has increased by £140 million to £464 million due to an increase in Other OCG in the 6 months ended 30 June 2020, primarily as a result of strategic asset allocation, de-risking and hedging activity in France, Ireland and Italy to protect the capital position against further adverse economic movements in the current market environment.

Asia Life OCG has increased by £25 million to £43 million primarily due to improvements in morbidity experience on health business and lapse experience on protection business in Singapore.

2.ii – Cash remittances‡#

The table below reflects actual remittances received by the Group from our businesses, comprising dividends and interest on internal loans. Cash remittances are eliminated on consolidation and hence are not directly reconcilable to the Group's IFRS statement of cash flows.

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
UK Life and Investments, Savings & Retirement			
UK Life Including Savings & Retirement[1]	**84**	892	1,387
Aviva Investors	**—**	81	86
General Insurance[1,2]	**24**	191	584
Europe Life	**32**	418	414
Asia Life	**—**	—	51
Other	**10**	—	75
Total	**150**	1,582	2,597

1 We use a wholly-owned, UK domiciled reinsurance subsidiary for internal capital and cash management purposes. Some remittances otherwise attributable to the operating businesses arise from this internal reinsurance vehicle.
2 2019 General Insurance cash remittances include £83 million received from UK General Insurance and £141 million received from Canada in February 2020 in respect of 2019 activity.

A cautious approach on cash remittances is being taken across the Group with markets retaining cash rather than remitting to the Group in the wake of the unprecedented challenges the COVID-19 pandemic presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy.

3 – Solvency II position
3.i – Solvency II position (shareholder view)

Shareholder view	**30 June 2020 £m**	30 June 2019 £m	31 December 2019 £m
Own funds	**24,626**	24,364	24,548
Solvency capital requirement	**(12,674)**	(12,543)	(11,910)
Estimated Solvency II surplus at 30 June/31 December	**11,952**	11,821	12,638
Estimated Solvency II shareholder cover ratio‡#	**194%**	194%	206%

The estimated Solvency II shareholder cover ratio is 194% at 30 June 2020. The Solvency II position disclosed is based on a 'shareholder view'. The shareholder view is considered by management to be more representative of the shareholders' risk exposure and the Group's ability to cover the solvency capital requirement with eligible own funds and aligns with management's approach to dynamically manage its capital position. In arriving at the shareholder position, the following adjustments are made to the regulatory Solvency II position:

- The contribution to the Group's SCR and own funds of the most material fully ring fenced with-profits funds of £2.4 billion at 30 June 2020 *(2019: £2.5 billion)* and staff pension schemes in surplus of £1.1 billion at 30 June 2020 *(2019: £1.2 billion)* are excluded. These exclusions have no impact on Solvency II surplus as these funds are self-supporting on a Solvency II capital basis with any surplus capital above SCR not recognised.
- A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory and shareholder own funds, subject to confirmation of the appropriate treatment at Group level. The treatment has since been confirmed and PPE of £0.4 billion is included within Group regulatory own funds at 30 June 2020 but remains excluded from the shareholder position.
- A notional reset of the transitional measure on technical provisions (TMTP), calculated using the same method as used for formal TMTP resets. This presentation avoids step changes to the Solvency II position that arise only when the formal TMTP reset points are triggered. The 30 June 2020 Solvency II position includes a notional reset (£0.2 billion increase in surplus) while the 31 December 2019 Solvency II position included a formal, rather than notional, reset of the TMTP in line with the regulatory requirement to reset the TMTP at least every two years and hence no adjustment was required.
- The 30 June 2020 Solvency II position includes the following pro forma adjustments: the disposals of Friends Provident International Limited (FPI), Hong Kong and Indonesia (total impact of £0.1 billion increase in surplus), the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR), and an adjustment for potential future corporate bond credit rating downgrades, equivalent to a full letter downgrade on 10% of BBB rated bonds and 5% on bonds rated A and above, in our UK annuity portfolio (£0.1 billion decrease in surplus as a result of an increase in SCR). Even though actual downgrades to our portfolio to date, already incorporated in our Solvency II surplus, has been minimal (£35 million reduction to surplus), this allowance reflects continued uncertainty in the external environment as a result of the COVID-19 pandemic. We will look to realign to actual observed experience within the current financial year. The 31 December 2019 Solvency II position includes the pro forma adjustments for the disposals of FPI (£nil impact on surplus) and Hong Kong (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion reduction in surplus as a result of an increase in SCR).

	30 June 2020			30 June 2019			31 December 2019		
	Own funds £m	**SCR £m**	**Surplus £m**	Own funds £m	SCR £m	Surplus £m	Own funds £m	SCR £m	Surplus £m
Estimated Solvency II regulatory surplus[1]	**28,376**	**(16,039)**	**12,337**	27,997	(16,228)	11,769	28,347	(15,517)	12,830
Adjustments for:									
Fully ring-fenced with-profit funds	**(2,430)**	**2,430**	**—**	(2,630)	2,630	—	(2,501)	2,501	—
Staff pension schemes in surplus	**(1,085)**	**1,085**	**—**	(1,078)	1,078	—	(1,181)	1,181	—
PPE	**(369)**	**—**	**(369)**	—	—	—	—	—	—
Notional reset of TMTP	**211**	**—**	**211**	208	—	208	—	—	—
Pro forma adjustments	**(77)**	**(150)**	**(227)**	(133)	(23)	(156)	(117)	(75)	(192)
Estimated Solvency II shareholder surplus	**24,626**	**(12,674)**	**11,952**	24,364	(12,543)	11,821	24,548	(11,910)	12,638

1 Regulation was introduced in France that allows French insurers to place the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At 31 December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory own funds, subject to confirmation of the appropriate treatment at Group level. The treatment has since been confirmed and PPE is included estimated Group regulatory own funds at 30 June 2020.

3.ii – Movement in Solvency II surplus

Shareholder view	30 June 2020 Own funds £m	30 June 2020 SCR £m	30 June 2020 Surplus £m	30 June 2019 Own funds £m	30 June 2019 SCR £m	30 June 2019 Surplus £m	31 December 2019 Own funds £m	31 December 2019 SCR £m	31 December 2019 Surplus £m
Group Solvency II surplus at 1 January	**24,548**	**(11,910)**	**12,638**	23,551	(11,569)	11,982	23,551	(11,569)	11,982
Opening restatements[1]	**78**	**(202)**	**(124)**	58	6	64	58	6	64
Operating capital generation	**632**	**258**	**890**	864	(84)	780	2,257	2	2,259
Non-operating capital generation	**(671)**	**(823)**	**(1,494)**	722	(896)	(174)	120	(368)	(248)
Dividends[2]	**(19)**	**—**	**(19)**	(831)	—	(831)	(1,222)	—	(1,222)
Hybrid debt issuance/(repayment)	**—**	**—**	—	—	—	—	(210)	—	(210)
Acquired/divested business	**58**	**3**	**61**	—	—	—	(6)	19	13
Estimated Solvency II surplus at 30 June/31 December	**24,626**	**(12,674)**	**11,952**	24,364	(12,543)	11,821	24,548	(11,910)	12,638

1 Opening restatements allows for adjustments to the estimated position presented in the preliminary announcement and the final position in the SFCR.
2 Dividends includes £9 million *(HY19: £9 million, 2019: £17 million)* of Aviva plc preference dividends and £10 million *(HY19: £10 million, 2019: £21 million)* of General Accident plc preference dividends.

The estimated Solvency II surplus is £11,952 million at 30 June 2020 *(2019: £12,638 million)*, with a shareholder cover ratio of 194% *(2019: 206%)*. The reduction in surplus of £686 million since 31 December 2019 is mainly due to the adverse impact of £(1.5) billion from non-operating capital generation partially offset by operating capital generation of £890 million over the period.

Non-operating capital generation is primarily due to significant falls in interest rates and equity markets, as well as widening credit spreads, as a result of the global economic downturn driven by the COVID-19 pandemic.

At 30 June 2019 and 31 December 2019 we included a specific allowance for the possible adverse impacts of the UK's exit from the European Union on UK commercial and residential property, which we have now removed. Our future property growth assumptions are updated on a quarterly basis and as at 30 June 2020 they include a cumulative 5-year growth rate assumption, from 2020-24 of -15% for UK commercial property and a 12% reduction followed by long-term growth rate for residential property.

3.iii – Diversified SCR analysis

	30 June 2020 £bn	30 June 2019 £bn	31 December 2019 £bn
Credit risk	**2.8**	3.3	2.7
Equity risk	**1.2**	1.6	1.4
Interest rate risk	**1.1**	1.0	0.4
Other market risk	**1.7**	1.5	1.7
Life insurance risk	**3.1**	2.7	3.1
General insurance risk	**0.8**	0.7	0.8
Operational risk	**1.1**	1.1	1.1
Other risk	**0.9**	0.7	0.7
Total	**12.7**	12.6	11.9

The SCR has increased by £0.8 billion to £12.7 billion since 31 December 2019. The change in risk profile is predominantly driven by the economic downturn as a result of the impact of the COVID-19 pandemic during 2020. Interest rate risk increased by £0.7 billion primarily due to the significant reduction in interest rates over the period. This is partly offset by equity risk which has reduced by £0.2 billion due to the reduced exposure as a result of market falls over the period.

3.iv – Solvency II sensitivities

Sensitivity analysis of Solvency II surplus

The following sensitivity analysis of Solvency II surplus allows for any consequential impact on the assets and liability valuations. All other assumptions remain unchanged for each sensitivity, except where these are directly affected by the revised economic conditions or where a management action that is allowed for in the SCR calculation is applicable for that sensitivity. For example, future bonus rates are automatically adjusted to reflect sensitivity changes to future investment returns.

TMTP are assumed to be recalculated in all sensitivities where its impact would be material.

All sensitivities are additional to the 30 June 2020 base shareholder solvency position shown in note 3(i). The table below shows the absolute change in cover ratio under each sensitivity, e.g. a 2% positive impact would result in a cover ratio of 196%.

Sensitivities		Impact on surplus 30 June 2020 £bn	Impact on cover ratio 30 June 2020 %	Impact on surplus 31 December 2019 £bn	Impact on cover ratio 31 December 2019 %
Changes in economic assumptions	25 bps increase in interest rate	**0.1**	**2%**	0.2	4%
	50 bps increase in interest rate	**0.1**	**4%**	0.2	6%
	100 bps increase in interest rate	**0.1**	**7%**	0.4	11%
	25 bps decrease in interest rate	**(0.1)**	**(3%)**	(0.2)	(5%)
	50 bps decrease in interest rate	**(0.2)**	**(5%)**	(0.6)	(11%)
	50 bps increase in corporate bond spread[1,2]	**(0.4)**	**(3%)**	(0.5)	(4%)
	100 bps increase in corporate bond spread[1,2]	**(0.7)**	**(4%)**	(1.1)	(10%)
	50 bps decrease in corporate bond spread[1,2]	**0.4**	**2%**	0.4	3%
	Credit downgrade on annuity portfolio[3]	**(0.3)**	**(4%)**	(0.3)	(4%)
	10% increase in market value of equity	**0.3**	**1%**	0.3	2%
	25% increase in market value of equity	**0.6**	**3%**	0.8	5%
	10% decrease in market value of equity	**(0.2)**	**(1%)**	(0.4)	(2%)
	25% decrease in market value of equity	**(0.5)**	**(3%)**	(0.9)	(7%)
	20% increase in value of commercial property[4]	**0.8**	**8%**	0.7	7%
	20% decrease in value of commercial property[4]	**(1.0)**	**(9%)**	(0.9)	(9%)
	20% increase in value of residential property[4]	**0.5**	**4%**	0.4	4%
	20% decrease in value of residential property[4]	**(0.6)**	**(6%)**	(0.6)	(6%)
Changes in non-economic assumptions	10% increase in maintenance and investment expenses	**(0.9)**	**(8%)**	(0.9)	(9%)
	10% increase in lapse rates	**(0.3)**	**(2%)**	(0.4)	(3%)
	5% increase in mortality/morbidity rates – life assurance	**(0.2)**	**(2%)**	(0.2)	(2%)
	5% decrease in mortality rates – annuity business	**(1.4)**	**(12%)**	(1.3)	(13%)
	5% increase in gross loss ratios	**(0.3)**	**(3%)**	(0.3)	(3%)

1 Credit spread movement for corporate bonds with credit rating A at a 10 year duration, with the other ratings and durations stressed by the same proportion relative to the solvency capital requirement.
2 A modelling refinement was implemented to the corporate bond credit sensitivities in the UK following a review of the 31 December 2019 methodology.
3 An immediate full letter downgrade on 20% of the annuity portfolio bonds (e.g. from AAA to AA, from AA to A).
4 The property sensitivities are in addition to reduced property growth assumed over the next 5 years in the base solvency position.

During the first half of the year a number of de-risking actions were implemented across most of our markets in response to the global economic downturn as a result of the COVID-19 pandemic. These include a reduction in interest rate exposures, further hedging and changes to asset allocation. This has reduced our Solvency II surplus and cover ratio sensitivity to interest rates, credit risk and equity. Market falls over the period have also reduced the exposure and hence sensitivity to equities.

Limitations of sensitivity analysis

The table above demonstrates the effect of a change in a key assumption while other assumptions remain unchanged. In reality, there is a correlation between the assumptions and other factors. It should also be noted that these sensitivities are non-linear, and larger or smaller impacts should not be interpolated or extrapolated from these results.

The sensitivity analysis does not take into consideration that the Group's assets and liabilities are actively managed. Additionally, the Solvency II position of the Group may vary at the time that any actual market movement occurs. For example, the Group's financial risk management strategy aims to manage the exposure to market fluctuations.

As investment markets move past various trigger levels, management actions could include selling investments, changing investment portfolio allocations, adjusting bonuses credited to policyholders and taking other protective action.

Other limitations in the above sensitivity analysis include the use of hypothetical market movements to demonstrate potential risk that only represent the Group's view of possible near-term market changes that cannot be predicted with any certainty and the assumption that all interest rates move in an identical fashion.

3.v – Solvency II net asset value

	30 June 2020 £m	pence per share[1]	30 June 2019 £m	pence per share[1]	31 December 2019 £m	pence per share[1]
Solvency II shareholder unrestricted tier 1 own funds at 1 January	**16,578**	**423p**	15,296	392p	15,296	392p
Opening restatements[2]	**78**	**2p**	58	1p	58	1p
Operating own funds generation	**632**	**16p**	864	21p	2,257	57p
Non-operating own funds generation	**(671)**	**(17)p**	722	18p	120	3p
Dividends[3]	**(19)**	**(0)p**	(831)	(21)p	(1,222)	(31)p
Acquired/divested business	**58**	**1p**	—	—	(6)	—
Impact of changes to the value of subordinated liabilities	**(281)**	**(8)p**	(129)	(3)p	58	1p
Impact of changes to the value of net deferred tax assets	**(29)**	**(1)p**	(26)	(1)p	17	—
Estimated Solvency II shareholder unrestricted Tier 1 own funds at 30 June/31 December	**16,346**	**416p**	15,954	407p	16,578	423p

1 Number of shares as at 30 June 2020: 3,928 million *(HY19: 3,917 million, 2019: 3,921 million)*.
2 Opening restatements allows for adjustments made to the estimated position presented in the preliminary announcement and the final position in the SFCR.
3 Dividends includes £9 million *(HY19: £9 million, 2019: £17 million)* of Aviva plc preference dividends and £10 million *(HY19: £10 million, 2019: £21 million)* of General Accident plc preference dividends.

Solvency II net asset value per share decreased by 7 pence to 416 pence per share *(HY19: 407 pence, 2019: 423 pence)* mainly as a result of the impact of adverse market movements on non-operating capital generation and an increase in the value of subordinated liabilities due to interest falls and sterling depreciation against the Euro partly offset by operating own funds generation during the period.

3.vi – Solvency II regulatory own funds and debt leverage‡

Regulatory view	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Solvency II regulatory debt[1]	**8,173**	8,289	7,892
Senior notes	**1,129**	1,110	1,052
Commercial paper	**365**	251	238
Direct capital instrument	**499**	—	—
Total debt	**10,166**	9,650	9,182
Unrestricted Tier 1	**20,096**	19,588	20,377
Restricted Tier 1	**1,335**	2,084	1,839
Tier 2	**6,569**	5,937	5,794
Tier 3[2]	**376**	388	337
Estimated total regulatory own funds[3]	**28,376**	27,997	28,347
Solvency II debt leverage[4]	**33%**	33%	31%
Solvency II debt leverage excluding direct capital instrument[5]	**32%**	N/A	N/A

1 Solvency II regulatory debt consists of Restricted Tier 1 and Tier 2 regulatory own funds, and Tier 3 subordinated debt.
2 Tier 3 regulatory own funds at 30 June 2019 consists of £269 million subordinated debt *(HY19: £268 million, 2019: £259 million)* plus £107 million net deferred tax assets *(HY19: £120 million, 2019: £78 million)*.
3 Regulation was introduced in France that allows French insurers to place the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory own funds, subject to confirmation of the appropriate treatment at Group level. The treatment has since been confirmed and PPE is included in the estimated Group regulatory own funds at 30 June 2020.
4 Solvency II debt leverage is calculated as the total debt as a proportion of total regulatory own funds plus commercial paper and senior notes.
5 The direct capital instrument was redeemed in full at first call date on 27 July 2020.

Solvency II debt leverage has increased by 2pp to 33% (*2019: 31%*). This was due to an increase in debt in 2020. The increase was driven by the refinancing of the direct capital instrument prior to redemption in July, a larger holding of short-term commercial paper and adverse foreign exchange movements increasing the value of the Group's EUR and CAD denominated borrowings. Excluding the direct capital instrument solvency II debt leverage was 32%.

4 – Controllable costs‡

	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Restated[2] Full year 2019 £m
UK Life and Investments, Savings & Retirement			
UK Life including Savings & Retirement	**506**	534	1,123
Aviva Investors	**207**	204	446
General Insurance	**693**	705	1,420
Europe Life	**280**	281	553
Asia Life	**89**	93	198
Other Group activities	**137**	149	282
Controllable costs	**1,912**	1,966	4,022

1 Following the change in the definition of Group adjusted operating profit on 31 December 2019 (see note B2), controllable costs now include the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in the prior period controllable costs of £62 million.
2 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £41 million for the 6 month period ended 30 June 2019 and £83 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to the Life & Health businesses from the UK, Ireland and Poland in controllable costs.

Controllable costs have decreased by 3% to £1,912 million *(HY19 restated: £1,966 million)* reflecting our focus on cost savings primarily driven by lower staff costs following a reduction in global headcount, partially offset by charitable donations made by Aviva to help those most affected by COVID-19.

The decrease in controllable costs in UK Life and General Insurance is mainly due to lower staff costs and lower project activity, partially offset by operational costs related to COVID-19 and continued investment in our IT infrastructure. The decrease in Other Group activities is mainly due to lower project spend following completion of a number of projects and deferral of certain project activities to the second half of 2020, partially offset by charitable contributions which includes a £10 million donation to our long-standing partner, the British Red Cross; a £5 million contribution to NHS Charities Together; and a £18.5 million contribution to the COVID-19 support fund established by the Association of British Insurers.

The reported controllable costs decrease of £54 million from HY19 has contributed towards £143 million of cumulative savings delivered against our 2018 baseline (£147 million on a constant currency basis).

5 – Profit and earnings per share

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m
Operating profit before tax			
UK Life and Investments, Savings & Retirement			
UK Life including Savings & Retirement[2]	**817**	752	1,920
Aviva Investors	**35**	60	96
General Insurance	**167**	332	594
Europe Life	**367**	392	827
Asia Life	**140**	152	276
Other Group operations (note A3)	**(6)**	(44)	(26)
Market operating profit	**1,520**	1,644	3,687
Corporate centre (note A4)	**(116)**	(97)	(183)
Group debt costs and other interest (note A5)[2]	**(179)**	(161)	(320)
Operating profit before tax‡#	**1,225**	1,386	3,184
Tax attributable to shareholders' profit	**(224)**	(306)	(668)
Non-controlling interests	**(48)**	(47)	(98)
Preference dividends and other[3]	**(36)**	(15)	(51)
Operating profit attributable to ordinary shareholders	**917**	1,018	2,367
Operating earnings per share‡#	**23.4p**	26.1p	60.5p

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit. Following the change in the definition of Group adjusted operating profit, the comparative amount for operating earnings per share for the 6 month period ended 30 June 2019 was also restated resulting in a reduction in prior period operating earnings per share of 1.2 pence.
2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been restated to reclassify net interest expense from UK Life including Savings & Retirement to Group debt costs and other interest, of £32 million for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit.
3 Other includes coupon payments in respect of the direct capital instrument (DCI) (net of tax). On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million DCI at its principal amount together with accrued interest to (but excluding) 27 July 2020. Interest payable up to 23 June 2020 has been recorded as an appropriation of retained profits with the remaining interest payable from 24 June 2020 to 30 June 2020 recorded within Group debt costs and other interest. In prior periods, the interest on the DCI and tier 1 notes was treated as an appropriation of retained profits and accordingly, accounted for when paid.

IFRS profit after tax	**874**	1,180	2,663
Basic earnings per share	**20.0p**	28.2p	63.8p

Operating profit decreased by 12% to £1,225 million *(HY19 restated: £1,386 million),* as the COVID-19 pandemic resulted in higher claims within the general insurance business from business interruption, travel, and other commercial insurance lines, and we experienced lower trading volumes due to disruption arising from the implementation of lockdown restrictions in the second quarter of 2020.

UK Life operating profit increased by 9% to £817 million *(HY19 restated: £752 million)*, following BPA volume growth at higher margins, and stronger returns in Savings & Retirement reflecting improved revenue due to a higher asset base. This was partially offset by lower profitability in protection and individual annuities, and there was a net negative overall impact on claims from the COVID-19 pandemic.

Aviva Investors operating profit decreased by 42% to £35 million *(HY19 restated: £60 million)* due to lower fee income which was impacted by changes in the mix of assets under management, caused by market volatility in the underlying asset classes and de-risking by some clients towards assets which attract lower fees.

In our General Insurance businesses operating profit decreased by 50% to £167 million *(HY19 restated: £332 million)*, primarily reflecting COVID-19 related claims of £165 million, net of reinsurance. This impact is based on estimated claims in business interruption insurance, other commercial lines and travel insurance and allows for favourable impacts in other product lines. In the UK the general insurance business recorded an operating loss of £66 million *(HY19 restated: profit of £141 million)* with £138 million attributable to COVID-19 related net claims experience. Higher weather costs relative to a benign first half of 2019 also had an adverse impact, along with less favourable prior year development. In Canada, operating profit increased to £129 million *(HY19 restated: £89 million)* as a favourable contribution from pricing, indemnity management and risk selection actions more than offset the adverse effect of COVID-19. Europe general insurance operating profit was broadly level at £104 million *(HY19: £103 million)*.

Europe Life operating profit decreased by 7% to £367 million *(HY19 restated: £392 million)*, as trading was disrupted by lockdown restrictions. In France, operating profit of £165 million *(HY19 restated: £195 million)* was also adversely affected by higher protection claims. In Italy, operating profit increased to £100 million *(HY19 restated: £82 million)* as strong fee generation from a higher asset base offset the impact from the trading disruption, and in Poland actions were taken to reduce costs increasing operating profit to £88 million *(HY19 restated: £85 million)*. In Ireland, operating profit reduced to £8 million *(HY19 restated: £24 million),* including the impact of de-risking actions taken to improve our solvency cover ratio.

In our Asia Life businesses, operating profit has decreased by 8% to £140 million *(HY19: £152 million)*. Excluding held for sale entities, operating profit was £67 million (*HY19 restated: £68 million*) despite a difficult trading environment primarily driven by the COVID-19 pandemic.

Other Group operations include investment return on centrally held assets, the results of our internal reinsurance business and the results of other operations. The reduced operating loss of £6 million *(HY19: operating loss of £44 million)* reflects lower project spend and the alignment of the UK digital business with the UK Life and UK General insurance businesses during 2019.

Operating earnings per share decreased by 2.7p to 23.4p *(HY19 restated: 26.1p)* reflecting the decrease in operating profit.

6 – Divisional performance
6.i – UK Life and Investments, Savings & Retirement

£m (unless otherwise stated)	**6 months 2020 £m**	6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m	**6 months 2020 £m**	Restated[1,3] 6 months 2019 £m	Sterling % change	Constant currency %	Restated[3] Full year 2019 £m
UK Life and Investments, Savings & Retirement										
Solvency II operating own funds generation and return on capital[‡]		Solvency II operating own funds generation								Solvency II return on capital
UK Life including Savings & Retirement	**330**	399	(17)%	(17)%	1,244	**4.8%**	6.0%	(1.2)pp	(1.2)pp	9.3%
Aviva Investors	**26**	50	(47)%	(47)%	70	**10.7%**	19.5%	(8.8)pp	(8.8)pp	13.7%
	356	449	(21)%	(21)%	1,314	**5.0%**	6.5%	(1.5)pp	(1.5)pp	9.5%
Solvency II operating capital generation[2,‡#] and cash remittances[‡#]		Solvency II operating capital generation								Cash remittances
UK Life including Savings & Retirement	**558**	447	25%	25%	1,239	**84**	892	(91)%	(91)%	1,387
Aviva Investors	**23**	75	(70)%	(70)%	90	**—**	81	(100)%	(100)%	86
	581	522	11%	11%	1,329	**84**	973	(91)%	(91)%	1,473
UK Life including Savings & Retirement										
Operating profit[1,2,‡#]						**817**	752	9%	9%	1,920
Controllable costs[3,‡]						**506**	534	(5)%	(5)%	1,123
New business										
PVNBP						**13,706**	11,831	16%	16%	27,570
VNB[‡]						**316**	196	61%	61%	592
Of which: UK Life contribution										
Operating profit[1,2,‡#]						**741**	732	1%	1%	1,827
Controllable costs[‡]						**336**	369	(9)%	(9)%	787
New business										
PVNBP						**5,166**	3,401	52%	52%	8,650
VNB[‡]						**253**	125	103%	103%	438
Of which: Savings & Retirement contribution										
Operating profit[1,2,‡#]						**76**	20	280%	280%	93
Controllable costs[‡]						**170**	165	3%	3%	336
New business										
PVNBP						**8,540**	8,430	1%	1%	18,920
VNB[‡]						**63**	71	(11)%	(11)%	154
Aviva Investors										
Revenue						**242**	264	(8)%	(8)%	542
Controllable costs[‡]						**207**	204	1%	1%	446
Operating profit[1,2,‡#]						**35**	60	(42)%	(42)%	96
Assets under management						**£355bn**	£346bn	3%	3%	£346bn

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.

2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been restated to reclassify net interest expense from UK Life including Savings & Retirement to Group debt costs and other interest of £32 million for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit. In addition, comparative amounts for operating capital generation of £34 million for the 6 month period ended 30 June 2019 and £69 million for the year ended 31 December 2019 have been restated. The change has no impact on the Group's operating capital generation.

3 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £39 million for the 6 month period ended 30 June 2019 and £78 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to UK Life in controllable costs.

Overview
Aviva is one of the UK's largest insurers in the UK life and savings market. We are uniquely positioned to help our customers and are a trusted provider of a broad range of products to both individual and corporate customers covering their savings, retirement, insurance and health needs. Our UK Life division incorporates three lines of business: annuities & equity release, protection & health and heritage. This division is key in generating sustainable cash flows. Our Savings & Retirement business is a leading provider of mass market savings and retirement solutions in the UK which is maintaining its strong growth in the savings market through our workplace and retail platforms. Aviva Investors, our international asset management business, leverages its existing investment capabilities to provide active solutions to both retail and institutional clients. The trading environment during the first half of 2020 was impacted by the movement restrictions imposed by the UK Government from early March together with customer caution in the face of the significant uncertainty. UK Life including Savings & Retirement took actions during the first half of 2020 to protect its balance sheet from the impacts of volatile financial markets.

6.i – UK Life and Investments, Savings & Retirement continued

Operating and financial performance

Solvency II operating own funds generation and return on capital

UK Life and Investments, Savings & Retirement Solvency II return on capital decreased by 1.5pp to 5.0% *(HY19: 6.5%)* and Solvency II own funds generation decreased by 21% to £356 million *(HY19: £449 million)*. This is due to capital management actions taken in the first half of 2020 including back book de-risking, which have benefitted our solvency capital requirement, whereas actions taken in the prior period largely increased own funds generation.

Operating capital generation‡#

UK Life and Investments, Savings & Retirement Solvency II operating capital generation (OCG) has increased by 11% to £581 million *(HY19: £522 million)* due to higher margins and improved capital efficiency on our BPA business, capital optimisation actions relating to our back book, and an action to change the mix of business included in our internal reinsurance vehicle. The increase is partially offset by a reduction on earnings from existing business, including a reduced contribution from Aviva Investors as a result of lower fee income which was impacted by changes in the mix of assets under management.

Cash‡#

Cash remittances to Group during the period were £84 million *(HY19: £973 million)*. While our solvency position remains strong, we have adopted a cautious approach and delayed cash remittances to Group in light of economic uncertainty created by the COVID-19 pandemic.

UK Life

Operating profit‡#, new business and net flows

Operating profit‡#	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Sterling % change	Full Year 2019 £m
Annuities and equity release	**365**	329	11%	866
Protection	**70**	99	(29)%	166
Heritage[3]	**226**	225	—	389
Health	**11**	15	(23)%	35
Other[2,4]	**69**	64	8%	371
Total UK Life (excluding Savings & Retirement) operating profit‡#	**741**	732	1%	1,827

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.
2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been restated to reclassify net interest expense from UK Life to Group debt costs and other interest, of £32 million at for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit.
3 Heritage represents products no longer actively marketed. This includes with-profits and bonds formerly shown in legacy, and non-profit legacy pensions which were formerly shown in long-term savings.
4 Other life represents changes in assumptions and modelling, non-recurring items and non-product specific overheads.

UK Life operating profit increased by 1% to £741 million *(HY19: £732 million)*. Strong growth in BPA was offset by lower profits in our individual annuity, equity release, and protection businesses. UK Life operating profit includes a net provision of £25 million to cover expected COVID-19 related claims within our protection business, net of expected favourable experience variances in our annuity business.

	PVNBP				VNB‡				New Business Margin		
Gross of tax and non controlling interests	**6 months 2020 £m**	6 months 2019 £m	Sterling % change	Full Year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Sterling % change	Full Year 2019 £m	**6 Months 2020 %**	6 months 2019 %	Full Year 2019 %
Annuities and equity release	**3,838**	2,218	73%	6,182	**173**	33	418%	284	**4.5%**	1.5%	4.6%
Protection	**962**	914	5%	1,875	**67**	76	(11)%	126	**7.0%**	8.3%	6.7%
Health and Other	**366**	269	36%	593	**13**	16	(18)%	28	**3.6%**	5.9%	4.7%
Total	**5,166**	3,401	52%	8,650	**253**	125	103%	438	**5.0%**	3.9%	5.2%

PVNBP increased by 52% to £5,166 million *(HY19: £3,401 million)* due to strong growth in BPA and health volumes, partly offset by a reduction in individual annuity and equity release sales. VNB increased by 103% to £253 million *(HY19: £125 million)*, mainly reflecting growth in BPA volumes at improved margins, benefitting from higher asset yields as corporate bond spreads widened and efficiently deployed capital.

Managed assets and net flows	**Annuities and equity release £m**	**Other UK non-profit £m**	**With profits and other £m**	**Total £m**
Managed assets at 1 January 2020	67,143	48,425	47,471	163,039
Premiums and deposits, net of reinsurance	2,511	806	97	3,414
Claims and redemptions, net of reinsurance	(1,402)	(1,895)	(1,926)	(5,223)
Net flows	1,109	(1,089)	(1,829)	(1,809)
Market and other movements	3,142	(1,284)	1,427	3,285
Managed assets at 30 June 2020	**71,394**	**46,052**	**47,069**	**164,515**

Divisional performance continued

6.i – UK Life and Investments, Savings & Retirement continued

Operating and financial performance continued

UK Life continued

Annuities and equity release

Annuities and equity release operating profit increased by 11% to £365 million *(HY19 restated: £329 million)*. Growth in BPA volumes more than offset the impact of lower individual annuity and equity release volumes. In the first half of 2020 BPA delivered new scheme wins of £3,083 million *(HY19: £1,177 million)* with margins benefitting from higher asset yields as corporate bonds spreads widened, and efficient deployment of capital. Individual annuity and equity release profit fell due to lower volumes as both businesses were adversely impacted by the COVID-19 driven market disruption, including advisers' inability to meet clients during lockdown.

Annuities and equity release VNB increased over 400% to £173 million *(HY19: £33 million)* driven by growth in BPA volumes. VNB margin strengthened to 4.5% *(HY19: 1.5%)* due to improved spreads on corporate bonds held to back our new business and our continued focus on capital efficiency.

Protection

Overall protection PVNBP grew 5% to £962 million *(HY19: £914 million).* We saw growth in both our individual and group protection businesses, where a strong first quarter offset the impact of slower trading in the second quarter following the implementation of lockdown restrictions. VNB decreased by 11% to £67 million *(HY19: £76 million)* as margins fell compared to the first half of 2019 due to a highly competitive marketplace.

Protection operating profit reduced by 29% to £70 million *(HY19 restated: £99 million)* due to lower new business margins, and adverse claims experience during the first quarter.

Heritage

Heritage operating profit was stable at £226 million *(HY19: £225 million)* and contained a net benefit from non-recurring items and other gains. The expected impact of the portfolio run off was offset by cost savings in the first half of 2020.

Health

UK Health operating profit decreased by 23% to £11 million *(HY19: £15 million)*. This includes the expected impact of the fair value pledge provided to policyholders, which reflects the extent to which claims levels were lower in the first half of 2020 as a result of the COVID-19 pandemic. Health and Other PVNBP increased to £366 million *(HY19: £269 million)* driven by higher large corporate business sales.

Other

Other operating profit increased by £5 million to £69 million *(HY19: £64 million)*. We have recognised a provision of £25 million to meet expected COVID-19 related claims for our individual and group protection businesses, net of expected favourable experience variances on our annuity book. The provision represents our total expected net liabilities on in-force policies from the COVID-19 pandemic over the next two years. During the first half of 2020, COVID-19 related individual and group protection claims amounted to £16 million, net of reinsurance.

Controllable costs‡

UK Life controllable costs decreased by 9% to £336 million *(HY19: £369 million)* mainly due to reduced spending on project activity as well as the impact of cost reduction.

Investment, Savings & Retirement

The Investment, Savings & Retirement business consists of our long-term Savings & Retirement business (excluding legacy pensions) and Aviva Investors, our international asset management business.

£m (unless otherwise stated)	6 months 2020 £m	Restated[1] 6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m
Investment, Savings & Retirement					
Operating profit‡#	**111**	80	39%	39%	189
Controllable costs‡	**377**	369	2%	2%	782
New business[2]					
PVNBP	**9,220**	9,015	2%	2%	20,186
VNB‡	**70**	77	(9)%	(9)%	166
Savings & Retirement contribution					
Operating profit‡#	**76**	20	280%	280%	93
Controllable costs‡	**170**	165	3%	3%	336
Aviva Investors contribution					
Revenue	**242**	264	(8)%	(8)%	542
Controllable costs‡	**207**	204	1%	1%	446
Operating profit‡#	**35**	60	(42)%	(42)%	96
Assets under management	**£355bn**	£346bn	3%	3%	£346bn

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.

2 Investments, Savings & Retirement new business figures include Aviva Investors PVNBP of £680 million *(HY19: £585 million, 2019: £1,266 million)* and VNB of £7 million *(HY19: £6 million, 2019: £12 million)*.

6.i – UK Life and Investments, Savings & Retirement continued

Operating and financial performance continued

Investment, Savings & Retirement continued

UK Savings & Retirement

Managed assets and net flows	Platform £m	Pensions and other savings & retirement £m	Total savings and retirement £m
Managed assets at 1 January 2020	29,085	84,153	113,238
Premiums and deposits, net of reinsurance	2,932	4,636	7,568
Claims and redemptions, net of reinsurance	(1,020)	(2,382)	(3,402)
Net flows	1,912	2,254	4,166
Market and other movements	(816)	(3,214)	(4,030)
Managed assets at 30 June 2020	**30,181**	**83,193**	**113,374**

UK Savings & Retirement net flows increased by 28% to £4.2 billion *(HY19: £3.2 billion)* due to higher group pension net flows driven by regular premiums on group pension business, where we saw the benefit of higher levels of auto-enrolment contributions. Inflows onto our platform increased to £2.9 billion *(HY19: £2.7 billion)*, where our flexible pension drawdown capability and comprehensive range of investments saw us increase our share of the advised market on both a gross and net flows basis in the first quarter of 2020.

Controllable costs increased by 3% to £170 million *(HY19: £165 million)* as we continue to invest in our growth strategy.

Operating profit grew strongly to £76 million *(HY19: £20 million)*, driven by growing revenue from an asset base which has increased to £113 billion *(HY19: £103 billion)*.

Aviva Investors

Considerable market volatility and investor activity was experienced in the first half as concerns over the economic disruption caused by COVID-19 impacted financial markets. Our investment performance was not immune from the turbulence, but as at the end of June 2020 55% of our funds were ahead of benchmark over three years, and 56% over five years. Fund performance compared to targets have been maintained, with 31% of assets under management exceeding targets over one year, consistent with the position at 31 December 2019. In terms of external client flows, our business has maintained the positive momentum experienced in the second half of 2019, with net positive external clients flows of £1.3 billion in the period, with significant new business wins in the UK and North America in the first half of 2020 demonstrating success in our diversification strategy.

Revenue

Revenue decreased by 8% to £242 million *(HY19: £264 million)* mainly driven by lower fee income as a result of changes in underlying asset mix towards lower margin assets arising from the widespread impact of COVID-19, de-risking by internal clients, the legacy internal client run off, and the impact of the expiry of a distribution agreement in the prior year resulting in lower revenue this year.

Controllable costs‡

Aviva Investors controllable costs increased by 1% to £207 million *(HY19: £204 million)*, reflecting the impact of inflation and phasing of costs in the first half of the year compared to the prior period.

Operating profit‡#

Aviva Investors operating profit decreased by 42% to £35 million *(HY19: £60 million restated)* mainly due to the lower fee income during the first half of 2020.

6.i – UK Life and Investments, Savings & Retirement continued

Operating and financial performance continued

Investment, Savings & Retirement continued

Aviva Investors continued

Net flows and assets under management and under administration

Assets under management represent all assets managed by Aviva Investors. These comprise assets which are included within the Group's statement of financial position and those belonging to external clients outside the Group which are not included in the statement of financial position. Internal assets are managed by Aviva Investors on behalf of Group companies, and includes assets managed for the UK Savings & Retirement business. Internal legacy relates to products that are no longer actively marketed.

	Internal legacy £m	Internal core £m	External £m	Total £m
Assets under management at 1 January 2020	84,927	194,693	66,512	346,132
Total inflows	6,702	16,352	4,655	27,709
Total outflows	(9,864)	(15,639)	(3,388)	(28,891)
Net flows	(3,162)	713	1,267	(1,182)
Net flows into liquidity funds and cash	(435)	2,579	3,124	5,268
Market and foreign exchange movements	4,808	(1,348)	1,249	4,709
Assets under management at 30 June 2020	**86,138**	**196,637**	**72,152**	**354,927**
Externally managed assets under administration at 1 January 2020				36,292
Externally managed assets under administration net flows and other movements				(501)
Externally managed assets under administration at 30 June 2020				**35,791**
Assets under management and administration at 1 January 2020				382,424
Assets under management and administration at 30 June 2020				**390,718**

Assets under management increased by £8.8 billion to £354.9 billion *(2019: £346.1 billion)*. This is due to £1.3 billion of external net inflows, £5.3 billion of net inflows into liquidity funds and cash and £4.7 billion of positive market and foreign exchange movements, offset by £2.4 billion of net outflows on our internal client. Assets under management and administration at 30 June 2020 were £390.7 billion *(2019: £382.4 billion)*.

6.ii – General Insurance

£m (unless otherwise stated)	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m
Operating profit‡# and controllable costs‡					Operating profit					Controllable costs
UK	**(66)**	141	(147)%	(147)%	250	**341**	361	(6)%	(6)%	726
Canada	**129**	89	45%	43%	191	**194**	195	(1)%	(1)%	402
Europe	**104**	103	1%	2%	154	**156**	147	6%	6%	288
Asia	**—**	(1)	(100)%	(100)%	(1)	**2**	2	—	—	4
	167	332	(50)%	(50)%	594	**693**	705	(2)%	(2)%	1,420
NWP and COR‡					NWP					COR
UK	**2,140**	2,158	(1)%	(1)%	4,218	**106.3%**	97.2%	9.1pp		97.9%
Canada	**1,502**	1,458	3%	2%	3,061	**95.5%**	98.1%	(2.6)pp		97.8%
Europe	**1,099**	1,102	—	—	2,017	**92.6%**	92.9%	(0.3)pp		95.7%
Asia	**7**	7	—	—	13	**N/A**	N/A	N/A		N/A
	4,748	4,725	—	—	9,309	**99.8%**	96.8%	3.0pp		97.5%
Solvency II operating own funds generation						**194**	298	(35)%	(39)%	628
Solvency II return on capital‡						**8.0%**	13.3%	(5.3)pp	(5.3)pp	14.0%
Solvency II operating capital generation‡#						**163**	216	(25)%	(24)%	574
Cash remittances‡#						**24**	191	(87)%	(87)%	584

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.
2 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations of Europe and Asia to their respective market segments to better reflect the management of the underlying businesses.

Overview

Aviva's General Insurance business operates at scale in the UK and Canada. We have a European business that operates in France, Ireland, Poland and Italy, and an Asian business that operates in Singapore. In the first half of 2020 we have focussed on executing our market strategies, with disruption from a slowdown in trading activity during the second quarter of 2020 due to the global COVID-19 pandemic.

Our estimate for the impact of the COVID-19 pandemic incorporates estimated claims net of reinsurance in business interruption insurance, other commercial lines and travel insurance, and allows for favourable impacts in other product lines. The continuing nature of COVID-19 related events means that these figures are subject to a significant degree of uncertainty. Excluding these COVID-19 related impacts, higher weather costs and prior year reserve strengthening, General Insurance has delivered an improved performance compared to HY19. General Insurance operating profit decreased to £167 million *(HY19 restated: £332 million)*, which translated to a COR of 99.8% *(HY19 restated: 96.8%)* due to the £165 million impact of the COVID-19 pandemic as defined above, a £10 million prior year reserve strengthening net of COVID-19 impact compared to a £21 million release at HY19, and weather costs £87 million higher than at HY19.

Net written premiums increased marginally to £4,748 million *(HY19: £4,725 million),* reflecting volume and rate increases in Global Corporate and Speciality commercial lines offset by a decline in personal lines due to worldwide government enforced lockdown measures.

All percentage movements below are quoted in constant currency unless otherwise stated.

Operating and financial performance
United Kingdom General Insurance
Operating profit‡#

The UK recorded an operating loss of £66 million *(HY19 restated: £141 million operating profit)*, with the decrease primarily reflecting COVID-19 related claims, as defined above, higher weather costs and prior year reserve strengthening.

The impact of COVID-19 related claims was £138 million, weather costs were £47 million higher due to storms Ciara, Dennis and Jorge in February compared to a benign 2019, and there was a £21 million prior year reserve strengthening at HY20 (excluding the impact of COVID-19) compared to a £16 million release at HY19. Long-term investment return was also £11 million lower due to reduced yields.

Excluding these impacts, the UK delivered an improved performance compared to HY19. Personal Lines benefited from the continued simplification of our business and remediation or exit of poor performing segments and Commercial Lines benefited from above inflation rate increases and targeted volume growth.

NWP and COR‡

UK Commercial Lines NWP grew 8% to £1,005 million *(HY19: £929 million)*, reflecting a combination of above inflation rate increases and targeted volume growth in Specialty Lines and SME Digital. UK Personal Lines saw 4% growth in the first quarter of 2020 in Retail own brands, offset by targeted exits and the continued run-off of the Creditor book. Growth slowed in the second quarter primarily due to COVID-19 impacts, with Retail own brands proving most resilient, resulting in an 8% reduction in NWP to £1,135 million (*HY19: £1,229 million*). Overall NWP was 1% lower at £2,140 million *(HY19: £2,158 million)*. Although NWP for the year will be below planned levels, we are starting to see increased activity levels as we support distributors and customers.

6.ii – General Insurance continued

Operating and financial performance continued

UK General Insurance continued

NWP and COR continued

UK GI COR improved by 1.5pp excluding the impacts of COVID-19 claims as previously defined, weather and prior year reserve strengthening. The adverse net impact of 6.6pp COVID-19 claims related impacts, 2.2pp higher weather costs and 1.8pp adverse movement in prior year reserves resulted in a COR of 106.3% *(HY19 restated: 97.2%)*. Personal lines COR of 97.8% *(HY19: 98.9%)* was 1.1pp lower year-on-year, reflecting an improvement in underlying performance as we continue to simplify our Personal Lines business and remediate or exit poor performing segments. Commercial lines saw an improvement in underlying performance driven by above inflation rate increases and targeted volume growth but the COR of 116.6% *(HY19: 94.8%)* was 22.2pp higher year-on-year, reflecting COVID-19 claims impacts, higher prior year reserve strengthening and higher weather costs.

Controllable costs‡

Controllable costs decreased 6% to £341 million *(HY19: £361 million)*, reflecting the simplification of our Personal Lines business and a reduction in project spend, while continuing to invest in our IT infrastructure and support growth in our Commercial lines business.

Canada

Operating profit‡#

During the first half of 2020, operating profit of £129 million *(HY19 restated: £89 million)* improved due to actions around pricing, indemnity management and risk selection. However, within this, Personal lines performed significantly better than expected while Commercial lines were impacted by COVID-19 claims. The economic shutdown due to COVID-19 has created significant disruption to our business but our financial stability and profitability has held up. Long-term investment return worsened by 1.4% due to lower short-term reinvestment yields, increased broker loan paybacks in late 2019, and reduced preferred shares dividend income.

NWP and COR‡

Net written premiums were £1,502 million *(HY19: £1,458 million)*. In Personal lines, NWP reduced to £1,012 million *(HY19: £1,018 million)* primarily as a result of the impact of COVID-19, as we offered more consumer relief in motor insurance. Commercial lines NWP increased to £490 million *(HY19: £440 million)* due to growth in Global Corporate and Specialty new business and rate increases put through during renewals.

The COR has improved to 95.5% at HY20 *(HY19 restated: 98.1%)* for the reasons described in relation to operating profit above. Personal lines COR of 86.4% was 11.2pp lower year-on-year, mainly driven by a milder winter, lower motor frequency before and after the COVID-19 shutdown and better pricing and underwriting. Commercial lines COR of 115.0% was 15.3pp higher year-on-year due to increased claims, mostly as a result of COVID-19.

Controllable costs‡

Controllable costs were broadly level at £194 million *(HY19: £195 million)* and reflect investment in claims personnel and processes, investment in our pricing capabilities and the Global Corporate and Specialty business, and continued investment in our IT infrastructure.

Europe

Operating profit‡#

Europe general insurance operating profit remained broadly level at £104 million *(HY19 restated: £103 million)*. In France, operating profit was £55 million *(HY19 restated: £55 million)* with operating profit growth from underlying activities offset by unfavourable prior year development and higher weather claims compared to HY19. In France the impact of the COVID-19 pandemic on commercial lines is expected to manifest in the second half of 2020. In Italy operating profit increased to £20 million (*HY19 restated: £12 million*) primarily driven by strong investment performance in the period. Operating profit was lower in Ireland in part due to COVID-19 claims and adverse large losses, partially offset by prior year development. In Ireland weather claims were favourable against longer term expectations, however this benefit was lower than at HY19.

NWP and COR‡

NWP remained stable at £1,099 million *(HY19: £1,102 million)* with growth in France, particularly in Commercial lines, offset by lower premiums in Poland and Ireland primarily due to the impact of the COVID-19 pandemic on new business, in addition to a soft Personal lines market in Ireland.

COR decreased by 0.3pp to 92.6% *(HY19: 92.9%)* for the reasons described in the operating profit section above.

Controllable costs‡

Controllable costs increased 6% to £156 million *(HY19: £147 million)*, including charitable contributions to the France solidarity fund and increased project implementation costs in Ireland, offset by BAU cost savings and asset levy refunds in Poland.

6.ii – General Insurance continued

Solvency II and cash remittances

Solvency II operating own funds generation and return on capital‡

General Insurance delivered improved own funds generation and Solvency II return on capital in HY20 compared to prior year after excluding the impacts of COVID-19 related claims, adverse prior year development and higher weather costs. Including these impacts, Solvency II own funds generation decreased to £194 million *(HY19: £298 million)*, which translated to a Solvency II return on capital of 8% *(HY19: 13.3%)*.

Operating capital generation‡#

General Insurance Solvency II operating capital generation reduced to £163 million *(HY19: £216 million)* reflecting the reduction in own funds generation described above, partially offset by the non-repeat of the one-off impact of the alignment of UK Digital costs which increased the Solvency II capital requirement at HY19.

Cash‡#

Cash remittances to Group are £24 million *(HY19: £191 million)*. Cash remittances in HY20 relate to interest payments as dividends were not received from our GI businesses, as we look to maintain balance sheet strength during the period of uncertainty as a result of the COVID-19 pandemic.

Divisional performance continued

6.ii – General Insurance continued

6 months 2020	UK Personal £m	UK Commercial £m	Total UK £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Europe £m	Asia £m	Total £m
General insurance									
Gross written premiums	1,172	1,143	2,315	1,029	551	1,580	1,152	7	5,054
Net written premiums	1,135	1,005	2,140	1,012	490	1,502	1,099	7	4,748
Net earned premiums	1,150	942	2,092	1,027	481	1,508	1,008	6	4,614
Net claims incurred	(695)	(788)	(1,483)	(565)	(372)	(937)	(633)	(4)	(3,057)
Of which claims handling costs			*(69)*			*(56)*	*(33)*	—	*(158)*
Earned commission	(278)	(189)	(467)	(210)	(109)	(319)	(190)	(1)	(977)
Earned expenses	(152)	(122)	(274)	(112)	(72)	(184)	(109)	(1)	(568)
Underwriting result	25	(157)	(132)	140	(72)	68	76	—	12
Long-term investment return (LTIR)			72			64	37	—	173
Other[1]			(6)			(3)	(9)	—	(18)
Operating profit			(66)			129	104	—	167
General insurance combined operating ratio[2]									
Claims ratio	60.5%	83.6%	70.9%	55.0%	77.3%	62.1%	62.8%		66.3%
Of which:									
Prior year reserve development (%)			*2.7%*			*(0.5)%*	*(0.3)%*		*1.0%*
Weather claims (under)/over long-term average (%)			*(0.6)%*			*1.6%*	*(0.3)%*		*0.2%*
Commission ratio	24.1%	20.1%	22.3%	20.4%	22.7%	21.2%	18.9%		21.2%
Expense ratio	13.2%	12.9%	13.1%	11.0%	15.0%	12.2%	10.9%		12.3%
Combined operating ratio	97.8%	116.6%	106.3%	86.4%	115.0%	95.5%	92.6%		99.8%
Assets supporting general insurance business									
Debt securities			2,264			5,026	2,358	99	9,747
Equity securities			559			220	15	—	794
Investment property			406			—	186	—	592
Cash and cash equivalents			1,481			161	308	35	1,985
Other[3]			1,577			186	423	—	2,186
Assets at 30 June 2020			6,287			5,593	3,290	134	15,304
Debt securities			2,323			4,633	2,209	81	9,246
Equity securities			744			231	161	—	1,136
Investment property			414			—	170	—	584
Cash and cash equivalents			609			158	160	23	950
Other[3]			1,882			150	387	—	2,419
Assets at 31 December 2019			5,972			5,172	3,087	104	14,335
Average assets			6,130			5,383	3,189	119	14,821
LTIR as % of average assets			2.3%			2.4%	2.3%	—	2.3%

1 Includes the result of non-insurance operations, unwind of discount rate, pension scheme net finance costs and IFRS 16 leases expense interest.
2 General Insurance ratios include Aviva Re.
3 Includes loans and other financial investments.

6.ii – General insurance continued

Restated[1,2,3] 6 months 2019	UK Personal £m	UK Commercial £m	Total UK £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Europe £m	Asia £m	Total £m
General insurance									
Gross written premiums	1,266	1,072	2,338	1,035	490	1,525	1,151	7	5,021
Net written premiums	1,229	929	2,158	1,018	440	1,458	1,102	7	4,725
Net earned premiums	1,233	851	2,084	1,033	416	1,449	992	7	4,532
Net claims incurred	(775)	(514)	(1,289)	(707)	(254)	(961)	(629)	(5)	(2,884)
Of which claims handling costs			*(78)*			*(58)*	*(34)*	*2*	*(168)*
Earned commission	(298)	(178)	(476)	(186)	(93)	(279)	(186)	—	(941)
Earned expenses	(146)	(114)	(260)	(115)	(67)	(182)	(107)	(2)	(551)
Underwriting result	14	45	59	25	2	27	70	—	156
Long-term investment return (LTIR)			83			65	36	—	184
Other[4]			(1)			(3)	(3)	(1)	(8)
Operating profit			141			89	103	(1)	332
General insurance combined operating ratio[5]									
Claims ratio	62.9%	60.4%	61.9%	68.4%	61.2%	66.3%	63.3%		63.8%
Of which:									
Prior year reserve development (%)			*(0.8)%*			*(0.3)%*	*(0.3)%*		*(0.3)%*
Weather claims (under)/over long-term average (%)			*(2.8)%*			*(0.4)%*	*(1.3)%*		*(1.7)%*
Commission ratio	24.2%	20.9%	22.8%	18.0%	22.3%	19.2%	18.8%		20.8%
Expense ratio	11.8%	13.5%	12.5%	11.2%	16.2%	12.6%	10.8%		12.2%
Combined operating ratio	98.9%	94.8%	97.2%	97.6%	99.7%	98.1%	92.9%		96.8%
Assets supporting general insurance business									
Debt securities			2,428			4,755	2,218	72	9,473
Equity securities			720			236	23	—	979
Investment property			407			—	153	—	560
Cash and cash equivalents			478			139	308	22	947
Other[6]			1,859			174	596	—	2,629
Assets at 30 June 2019			5,892			5,304	3,298	94	14,588
Debt securities			2,367			4,445	2,179	72	9,063
Equity securities			568			208	90	—	866
Investment property			380			—	148	—	528
Cash and cash equivalents			700			130	371	15	1,216
Other[6]			1,776			207	615	—	2,598
Assets at 31 December 2018			5,791			4,990	3,403	87	14,271
Average assets			5,842			5,147	3,351	91	14,431
LTIR as % of average assets			2.8%			2.5%	2.1%	—	2.6%

1 Following a review of the Group's presentation of consolidated investment funds, comparative amounts as at 30 June 2019 have been restated from those previously reported. The restatement has had no impact on the profit for the year or equity. See note B2 for further information.
2 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.
3 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations for Europe and Asia to their respective market segments to better reflect the management of the underlying businesses.
4 Includes the result of non-insurance operations, unwind of discount rate, pension scheme net finance costs and IFRS 16 leases expense interest.
5 General Insurance ratios include Aviva Re.
6 Includes loans and other financial investments.

6.ii – General insurance continued

Full year 2019	UK Personal £m	UK Commercial £m	Total UK £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Europe £m	Asia £m	Total £m
General insurance									
Gross written premiums	2,470	2,154	4,624	2,134	1,070	3,204	2,121	15	9,964
Net written premiums	2,399	1,819	4,218	2,100	961	3,061	2,017	13	9,309
Net earned premiums	2,440	1,721	4,161	2,078	884	2,962	1,982	15	9,120
Net claims incurred	(1,545)	(1,049)	(2,594)	(1,421)	(531)	(1,952)	(1,306)	(12)	(5,864)
Of which claims handling costs			*(155)*			*(116)*	*(64)*	—	*(335)*
Earned commission	(599)	(364)	(963)	(378)	(194)	(572)	(365)	(2)	(1,902)
Earned expenses	(279)	(239)	(518)	(233)	(140)	(373)	(225)	(3)	(1,119)
Underwriting result	17	69	86	46	19	65	86	(2)	235
Long-term investment return (LTIR)			166			133	76	1	376
Other[1]			(2)			(7)	(8)	—	(17)
Operating profit (GI)			250			191	154	(1)	594
General insurance combined operating ratio[2]									
Claims ratio	63.3%	60.9%	62.3%	68.4%	60.0%	65.9%	65.9%		64.4%
Of which:									
Prior year reserve development (%)			*(2.6)%*			*(0.6)%*	*(1.8)%*		*(1.7)%*
Weather claims (under)/over long-term average (%)			*(2.4)%*			*(0.7)%*	*1.2%*		*(1.0)%*
Commission ratio	24.6%	21.2%	23.1%	18.2%	22.0%	19.3%	18.4%		20.8%
Expense ratio	11.4%	13.9%	12.5%	11.2%	15.8%	12.6%	11.4%		12.3%
Combined operating ratio	99.3%	96.0%	97.9%	97.8%	97.8%	97.8%	95.7%		97.5%
Assets supporting general insurance business									
Debt securities			2,323			4,633	2,209	81	9,246
Equity securities			744			231	161	—	1,136
Investment property			414			—	170	—	584
Cash and cash equivalents			609			158	160	23	950
Other[3]			1,882			150	387	—	2,419
Assets at 31 December 2019			5,972			5,172	3,087	104	14,335
Debt securities			2,367			4,445	2,179	72	9,063
Equity securities			568			208	90	—	866
Investment property			380			—	148	—	528
Cash and cash equivalents			700			130	371	15	1,216
Other[3]			1,776			207	615	—	2,598
Assets at 31 December 2018			5,791			4,990	3,403	87	14,271
Average assets			5,882			5,081	3,245	96	14,304
LTIR as % of average assets			2.8%			2.6%	2.3%	1.0%	2.6%

1 Includes the result of non-insurance operations, unwind of discount rate, pension scheme net finance costs and IFRS 16 leases expense interest.
2 General Insurance ratios include Aviva Re.
2 Includes loans and other financial investments.

Divisional performance continued

6.iii – Europe Life

£m (unless otherwise stated)	**6 months 2020 £m**	6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m	**6 months 2020 £m**	Restated[1,2] 6 months 2019 £m	Sterling % change	Constant currency %	Restated[3] Full year 2019 £m
Solvency II operating own funds generation						**217**	304	(29)%	(28)%	574
Solvency II return on capital‡						**7.1%**	11.0%	(3.9)pp	(4.4)pp	10.3%
Solvency II operating capital generation‡#						**464**	324	43%	45%	754
Cash remittances‡#						**32**	418	(92)%	(92)%	414
Operating profit‡#										
France						**165**	195	(16)%	(16)%	408
Poland						**88**	85	2%	5%	174
Italy						**100**	82	20%	20%	173
Other Europe						**14**	30	(54)%	(53)%	72
						367	392	(7)%	(6)%	827
Controllable costs[3,‡]						**280**	281	1%	2%	553
New business					PVNBP					VNB‡
France	**2,158**	2,710	(20)%	(20)%	5,702	**100**	95	6%	6%	168
Poland	**234**	307	(24)%	(23)%	624	**26**	31	(16)%	(14)%	64
Italy	**2,142**	3,468	(38)%	(38)%	5,537	**51**	99	(49)%	(49)%	147
Other Europe	**891**	913	(2)%	—	1,909	**11**	12	(10)%	(1)%	35
	5,425	7,398	(27)%	(26)%	13,772	**188**	237	(21)%	(20)%	414

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.
2 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations to their respective market segments to better reflect the management of the underlying businesses.
3 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £2 million for the 6 month period ended 30 June 2019 and £5 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to Ireland and Poland, in controllable costs.

Overview

Aviva operates in a number of markets in Europe with life insurance operations in France, Italy, Poland, and Other Europe markets (Ireland and Turkey). In the first half of 2020 we have focused on the development and implementation of our market strategies for organic growth while we navigated the operational and financial challenges presented by government responses to the COVID-19 pandemic across Europe. Operating profit decreased by 6% to £367 million *(HY19 restated: £392 million)* with growth in Italy and Poland offset by lower profits in other markets. The volatility in financial markets adversely impacted operating profit either directly through reduced assets under management and fee income or indirectly as a result of the balance sheet de-risking actions taken in most markets which has reduced investment return. In addition, France has seen an increase in protection claims.

Europe Life experienced lower trading volumes as a result of the movement restrictions imposed from early March together with customer caution in the face of the significant uncertainty, while we also actively sought to reduce with-profit inflows in France and Italy all of which resulted in a decrease in PVNBP by 26% to £5,425 million *(HY19: £7,398 million)* during the first half of 2020. Savings new business mix continued to shift towards unit-linked products in line with our strategy to shift new business towards capital-light products.

All percentage movements are quoted in constant currency unless otherwise stated.

Operating and financial performance

Solvency II operating own funds generation and return on capital‡

Europe Life Solvency II return on capital has decreased by 3.9pp to 7.1% *(HY19: 11.0%)*, on a sterling basis, and Solvency II operating own funds generation has reduced to £217 million *(HY19: £304 million)*. This was primarily due to lower new business volumes over the period reflecting managed reductions in with-profit volumes and impacts of the COVID-19 pandemic on trading, and a lower contribution from management actions than the first half of 2019 which included favourable modelling and assumption changes in Italy.

Operating capital generation (OCG) ‡#

Europe Life Solvency II operating capital generation has increased by £140 million to £464 million *(HY19: £324 million)*, primarily as a result of strategic asset allocation, de-risking and hedging activity in France, Ireland and Italy to protect the capital position against further adverse economic movements in the current market environment.

Cash‡#

Cash remitted to Group was £32 million *(HY19: £418 million)*, the first half of 2019 included a France dividend of £240 million and a Poland dividend of £144 million, neither market has paid dividends during the first half of 2020 as we maintain balance sheet strength during this period of uncertainty.

Operating profit‡#

The operating profit of our life and health businesses reduced by 6% to £367 million *(HY19 restated: £392 million)*. Dealing with each of the markets in turn:

- In France, operating profit decreased by 16% to £165 million *(HY19 restated: £195 million)* with improved product mix during the first half of the year more than offset by adverse protection claims experience. The operating profit in our health business was £11 million *(HY19: £6 million)* following low claims experience during the lockdown period.

6.iii – Europe Life continued

Operating and financial performance continued

Operating profit‡# continued

- In Poland, operating profit increased by 5% to £88 million *(HY19 restated: £85 million)* with actions taken to reduce operating expenses offsetting trading disruption arising from lockdown restrictions which particularly affected our Bancassurance channels
- In Italy, operating profit increased by 20% to £100 million *(HY19 restated: £82 million)* as a result of higher fee income from assets under management that had grown strongly in previous periods offsetting the trading disruption experienced during the first half of 2020.
- Within Other Europe markets, Ireland operating profit reduced to £8 million *(HY19 restated: £24 million),* a decrease of 68% mainly driven by adverse income protection claims experience, the impact of balance sheet de-risking actions during the first half of 2020, and the absence of positive one-off methodology changes included in half-year 2019 result. In Turkey, operating profit was £6 million *(HY19 restated: £6 million)*.

Managed assets and net flows

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Managed assets at 1 January	**125,580**	118,502	118,502
Premiums and deposits, net of reinsurance	**4,929**	6,449	12,474
Claims and redemptions, net of reinsurance	**(4,162)**	(4,040)	(7,992)
Net flows	**767**	2,409	4,482
Market and other movements	**6,224**	7,209	2,596
Managed assets at 30 June/31 December	**132,571**	128,120	125,580

Net inflows in Europe of £0.8 billion *(HY19: £2.4 billion)* decreased mainly due to lower trading volumes as a result of the movement restrictions imposed in all markets from early March and our active reduction of with-profit inflows in France and Italy. Europe managed assets have benefitted from positive market and other movements of £6.2 billion *(HY19: £7.2 billion)* during the first half of 2020.

Controllable costs‡

Controllable costs for Europe Life were stable at £280 million *(HY19 restated: £281 million)* reflecting a reduction in run-rate expenses and change spend as a result of our cost saving programme, offset by inflationary increases and one-off costs incurred as a result of changes in operating environment during the first half of 2020 due to the COVID-19 pandemic.

New business

Europe Life PVNBP decreased by 26% to £5,425 million *(HY19: £7,398 million)* and VNB decreased by 20% to £188 million *(HY19: £237 million)*. New business margin improved overall as a result of favourable business mix as we significantly increased our mix of unit-linked business.

In France, PVNBP was down by 20% to £2,158 million *(HY19: £2,710 million)* reflecting managed reductions in with-profit volumes and lower volumes due to the trading disruption caused by the lockdown in France from April onwards, which partially offsets strong growth in our unit-linked pension product. VNB increased by 6% to £100 million *(HY19: £95 million)* with an improvement in margin driven largely by a higher mix of more profitable unit-linked inflows.

In Poland PVNBP decreased by 23% to £234 million *(HY19: £307 million)* driven by lower volume due to the trading disruption in our distribution channels arising from movement restrictions and the closure of branches by our bancassurance partners. VNB margins improved slightly compared to the first half of 2019 as a result of favourable mix of business.

In Italy, PVNBP was down by 38% to £2,142 million *(HY19: £3,468 million)* due to a managed reduction in standalone with-profits volumes together with lower volume due to trading disruption from March onwards arising from movement restrictions. VNB margins were lower due to the impact of unfavourable interest rates movements partially offset by the introduction of our higher margin Formula 5 savings product.

Within Other Europe markets, Ireland PVNBP was up by 2% to £770 million *(HY19: £753 million)* as strong pension sales during the first half of 2020 was offset by the lower volumes due to the impact of trading disruption arising from lockdowns from April onwards. In Turkey PVNBP reduced by 14% to £121 million *(HY19: £160 million)* as a result of lower volumes due to the trading disruption from bank branch closures.

Divisional performance continued

6.iv – Asia Life

£m (unless otherwise stated)	6 months 2020 £m	6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Sterling % change	Constant currency %	Full year 2019 £m
Solvency II operating own funds generation						**97**	76	28%	28%	187
Solvency II return on capital‡						**12.7%**	10.4%	2.3pp	2.0pp	12.7%
Solvency II operating capital generation‡#						**43**	18	139%	124%	60
Cash remittances‡#						**—**	—	—	—	51
Operating profit‡#										
Singapore						**53**	52	2%	3%	145
China						**19**	25	(24)%	(22)%	25
Other Asia (excl FPI, Hong Kong & Indonesia)						**(5)**	(9)	(44)%	44%	(12)
						67	68	(1)%	1%	158
Held for Sale (FPI, Hong Kong & Indonesia)						**73**	84	(13)%	(13)%	118
						140	152	(8)%	(7)%	276
Controllable costs‡						**89**	93	(3)%	(3)%	198
New business					PVNBP					VNB‡
Singapore	**693**	724	(4)%	(4)%	1,580	**72**	71	1%	2%	159
China	**355**	419	(15)%	(14)%	718	**13**	29	(55)%	(55)%	43
Other Asia (excl FPI, Hong Kong & Indonesia)	**162**	102	59%	58%	300	**6**	(1)	849%	1,231%	3
	1,210	1,245	(3)%	(2)%	2,598	**91**	99	(8)%	(7)%	205
Held for Sale (FPI, Hong Kong & Indonesia)	**193**	232	(17)%	(16)%	459	**(1)**	(3)	67%	68%	1
	1,403	1,477	(5)%	(4)%	3,057	**90**	96	(6)%	(6)%	206

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.
2 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations to their respective market segments to better reflect the management of the underlying business.

Overview

Our businesses in Asia provide access to a combined population of over 2.8 billion people, with relatively low insurance penetration compared to Western markets. We provide life and health insurance solutions in Singapore, China, Vietnam and India. Across our markets we operate a multi-distribution channel strategy which includes tied-agency, financial advisers, bancassurance, affinity partnerships, telemarketing and direct sales force.

Our core strategy is to leverage strong partnerships and our distribution capability to grow long term value. We continue to place emphasis on earning customers' trust and delivering great customer outcomes. Investment in enhancing Asia's distribution, digital and analytics capabilities will continue throughout 2020.

In Singapore, as one of the biggest providers of employee benefits and healthcare insurance, we continued to grow our distribution networks. Our financial advisory subsidiaries, Aviva Financial Advisers and Professional Investment Advisory Services, now have a combined total of 1,901 advisers *(HY19: 1,653 advisers)*. In China, building upon our excellent relationships with COFCO, our joint venture partner, we continued to invest in our core agency channel and further digitizing customer journeys and touch points.

As a result of the COVID-19 pandemic, many governments took rapid actions against the outbreak. Our businesses have implemented safeguards to ensure business continuity and support the wellbeing of our customers and communities. Looking ahead, we believe Asia's macro fundamentals remain sound, and regional insurance markets can recover relatively quickly post-COVID-19.

Our businesses in Friends Provident International (FPI), Hong Kong and Indonesia are classified as held for sale at 30 June 2020. We announced the disposal of our 76% stake in FPI was completed on 16 July 2020.

All percentage movements are quoted in constant currency unless otherwise stated.

Operating and financial performance

Operating own funds generation, return on capital and operating capital generation‡

Asia Life Solvency II return on capital has improved by 2.3pp to 12.7% *(HY19: 10.4%)* on a sterling basis, and Solvency II operating capital generation has increased by £25 million to £43 million *(HY19: £18 million)*, mainly attributable to improved persistency in Singapore, a strong back book in China and more capital efficient products sold in Vietnam.

Cash‡#

Cash remittances to Group were £nil during HY20 (*HY19: £nil*).

Operating profit‡#

Operating profit from our life and health businesses was £140 million *(HY19 restated: £152 million)*. Excluding profit from held for sale entities, operating profit was £67 million *(HY19 restated: £68 million)*. Within this, Singapore's operating profit remained stable at £53 million *(HY19 restated: £52 million)* reflecting improved claims experience and favourable modelling refinements, offset by lower new business volume due to the COVID-19 pandemic and expenses related to distribution channel development. Despite being the initial epicentre of the COVID-19 pandemic, China's operating profit remained resilient at £19 million *(HY19 restated: £18 million, excluding £7 million one-off tax credit)*.

6.iv – Asia Life continued

Operating and financial performance continued

Managed assets and net flows

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Managed assets at 1 January	**15,138**	14,775	14,775
Premiums and deposits, net of reinsurance	**527**	356	927
Claims and redemptions, net of reinsurance	**(321)**	(401)	(838)
Net flows	**206**	(45)	89
Market and other movements	**87**	87	274
Managed assets at 30 June/31 December	**15,431**	14,817	15,138

Asia's managed assets increased to £15,431 million *(HY19: £14,817 million)*. Net inflows of £206 million *(HY19: £45 million outflow)* were mainly attributable to Singapore's higher premium collections and improved claims experience.

Controllable costs‡

Total controllable costs were £89 million *(HY19: £93 million)*. Excluding held for sale entities, controllable costs increased to £70 million *(HY19: £68 million)*, as disciplined distribution development and investment in digital capabilities continued across the region.

New business

Excluding held for sale entities, PVNBP decreased by 2% to £1,210 million *(HY19: £1,245 million)*. Sales volumes were impacted by lockdown measures imposed due to the COVID-19 pandemic, severely restricting sales activities across most channels.

Excluding held for sale entities, VNB decreased by 7% to £91 million *(HY19: £99 million)*. Singapore and China sales were focussed towards lower margin savings products in early 2020 as we looked to boost sales volumes. Higher margin protection product sales planned for Q2 in Singapore and China were subsequently disrupted by the COVID-19 pandemic. Furthermore, as investment markets remained volatile during the COVID-19 outbreak, lower interest rates and dampened investor confidence negatively impacted VNB.

7 – Life business profit drivers

	UK Life including Savings & Retirement			Europe Life			Asia Life			Total		
	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m
New business income	**414**	297	919	**116**	148	299	**144**	161	317	**674**	606	1,535
Underwriting margin	**148**	165	287	**90**	98	250	**54**	41	97	**292**	304	634
Investment return[3]	**695**	661	1,346	**652**	607	1,231	**118**	119	251	**1,465**	1,387	2,828
Total income	**1,257**	1,123	2,552	**858**	853	1,780	**316**	321	665	**2,431**	2,297	4,997
Acquisition expenses	**(210)**	(192)	(407)	**(134)**	(171)	(302)	**(117)**	(121)	(250)	**(461)**	(484)	(959)
Administration expenses[1,3]	**(398)**	(431)	(898)	**(317)**	(289)	(588)	**(60)**	(54)	(115)	**(775)**	(774)	(1,601)
Total expenses	**(608)**	(623)	(1,305)	**(451)**	(460)	(890)	**(177)**	(175)	(365)	**(1,236)**	(1,258)	(2,560)
Other[2,3,4]	**157**	237	638	**(51)**	(7)	(84)	**(15)**	5	(17)	**91**	235	537
Life business operating profit	**806**	737	1,885	**356**	386	806	**124**	151	283	**1,286**	1,274	2,974
Health business operating profit	**11**	15	35	**11**	6	21	**16**	1	(7)	**38**	22	49
Total divisional operating profit	**817**	752	1,920	**367**	392	827	**140**	152	276	**1,324**	1,296	3,023

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated. There is no impact on profit before tax attributable to shareholders' profit.

2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been restated to reclassify net interest expense from UK Life (Other) to Group debt costs and other interest, of £32 million for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit.

3 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts for administration expenses have been restated by £30 million for the 6 month period ended 30 June 2019 and £59 million for the year ended 31 December 2019 to include claims handling costs attributable to the UK Life business. Previously these costs were included as a reduction to investment return (£13 million for the 6 month period ended 30 June 2019 and £25 million for the year ended 31 December 2019) and other (£17 million for the 6 month period ended 30 June 2019 and £34 million for the year ended 31 December 2019). Additionally, as part of this review the comparative amount for administration expenses for the year ended 31 December 2019 has been restated to include £42 million of amortisation of intangible assets, previously included in other.

4 Other represents DAC, changes in assumptions and modelling, non-recurring items and non-product specific items and excludes the total profit of £nil *(HY19: loss of £4 million, 2019: profit of £27 million)* for Aviva Investors' Pooled Pensions and Aviva Life Reinsurance. Additionally, comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations for Europe and Asia to their respective market segments to better reflect the management of the underlying businesses.

Income: New business income and underwriting margin

	UK Life including Savings & Retirement			Europe Life			Asia Life			Total		
	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m
New business income	**414**	297	919	**116**	148	299	**144**	161	317	**674**	606	1,535
Acquisition expenses	**(210)**	(192)	(407)	**(134)**	(171)	(302)	**(117)**	(121)	(250)	**(461)**	(484)	(959)
Net contribution	**204**	105	512	**(18)**	(23)	(3)	**27**	40	67	**213**	122	576
APE (£m)[1]	**1,862**	1,798	4,056	**594**	796	1,495	**210**	217	429	**2,666**	2,811	5,980
As margin on APE (%)	**11%**	6%	13%	**(3)%**	(3)%	—	**13%**	18%	16%	**8%**	4%	10%
Underwriting margin (£m)	**148**	165	287	**90**	98	250	**54**	41	97	**292**	304	634
Analysed by:												
Expenses	**32**	32	62	**22**	27	64	**43**	42	77	**97**	101	203
Mortality and longevity	**116**	133	225	**58**	60	157	**15**	6	34	**189**	199	416
Persistency	**—**	—	—	**10**	11	29	**(4)**	(7)	(14)	**6**	4	15

1 APE excludes Retail Fund Management and Health business in Asia.

Income: Investment return

	UK Life including Savings & Retirement			Europe Life			Asia Life			Total		
	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m
Unit-linked margin (£m)[1]	**466**	418	844	**316**	301	592	**100**	108	213	**882**	827	1,649
As annual management charge on average reserves (bps)	**60**	60	58	**142**	140	136	**231**	248	245	**85**	86	83
Average reserves (£bn)[2]	**154.5**	140.3	146.1	**44.5**	42.9	43.6	**8.7**	8.7	8.7	**207.7**	191.9	198.4
Participating business (£m)[3]	**59**	68	132	**295**	257	549	**(1)**	(4)	4	**353**	321	685
As bonus on average reserves (bps)	**29**	35	33	**81**	72	77	**(5)**	(19)	9	**60**	56	59
Average reserves (£bn)[2]	**40.8**	39.0	40.4	**73.2**	71.2	71.3	**4.3**	4.3	4.3	**118.3**	114.5	116.0
Spread margin (£m)[1]	**147**	157	302	**1**	4	2	**3**	3	7	**151**	164	311
As spread margin on average reserves (bps)	**42**	46	45	**4**	16	4	**22**	30	33	**39**	44	42
Average reserves (£bn)[2]	**69.8**	68.1	67.7	**5.0**	4.9	4.9	**2.7**	2.0	2.1	**77.5**	75.0	74.7
Expected return on shareholder assets (£m)[4]	**23**	18	68	**40**	45	88	**16**	12	27	**79**	75	183
Total (£m)	**695**	661	1,346	**652**	607	1,231	**118**	119	251	**1,465**	1,387	2,828
Total average reserves (£bn)[2]	**265.1**	247.4	254.2	**122.7**	119.0	119.8	**15.7**	15.0	15.1	**403.5**	381.4	389.1

1 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated to reclassify all claims handling costs attributable to the UK Life business as administration expenses. For the 6 month period ended 30 June 2019, £5 million of these costs were previously included in unit-linked margin and £8 million in spread margin, and for the year ended 31 December 2019, £9 million were included in unit-linked margin and £16 million in spread margin.

2 An average of the insurance or investment contract liabilities over the reporting period, including managed pension business which is not consolidated within the statement of financial position.

3 The shareholders' share of the return on with- profits and other participating business.

4 The expected investment return based on opening economic assumptions applied to expected surplus assets over the reporting period that are not backing policyholder liabilities.

7 – Life business profit drivers continued
Expenses

	UK Life including Savings & Retirement			Europe Life			Asia Life			Total		
	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m	**6 months 2020 £m**	Restated[1] 6 months 2019 £m	Full year 2019 £m
Acquisition expenses (£m)	**(210)**	(192)	(407)	**(134)**	(171)	(302)	**(117)**	(121)	(250)	**(461)**	(484)	(959)
APE (£m)[2]	**1,862**	1,798	4,056	**594**	796	1,495	**210**	217	429	**2,666**	2,811	5,980
As acquisition expense ratio on APE (%)	**11%**	11%	10%	**23%**	21%	20%	**56%**	56%	58%	**17%**	17%	16%
Administration expenses (£m)[3]	**(398)**	(431)	(898)	**(317)**	(289)	(588)	**(60)**	(54)	(115)	**(775)**	(774)	(1,601)
As existing business expense ratio on average reserves (bps)	**30**	35	35	**52**	49	49	**76**	72	76	**38**	41	41
Total average reserves (£bn)[4]	**265.1**	247.4	254.2	**122.7**	119.0	119.8	**15.7**	15.0	15.1	**403.5**	381.4	389.1

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. There is no impact on profit before tax. Following the change in the definition of Group adjusted operating profit, administration expenses were also restated to include the amortisation and impairment of internally generated intangible assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated.
2 APE excludes Retail Fund Management and Health business in Asia.
3 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts for administration expenses have been restated by £30 million for the 6 month period ended 30 June 2019 and £59 million for the year ended 31 December 2019 to include claims handling costs attributable to the UK Life business. Additionally, as part of this review the comparative amount for administration expenses for the year ended 31 December 2019 has been restated to include £42 million of amortisation of intangible assets, previously included in other.
4 An average of the insurance or investment contract liabilities over the reporting period, including managed pension business which is not consolidated within the statement of financial position.

Financial supplement

In this section

A1 – Group adjusted operating profit‡#

The tables below reconcile Group adjusted operating profit as presented in section 6 Divisional performance to the IFRS presentation of Group adjusted operating profit in note B6(a) Segmental information.

6 months 2020	United Kingdom: UK Life £m	United Kingdom: UK GI £m	Canada £m	Europe: France £m	Europe: Poland £m	Europe: Italy, Ireland & Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
UK Life and Investments, Savings & Retirement	**817**	**—**	**—**	**—**	**—**	**—**	**—**	**35**	**—**	**852**
General Insurance	**—**	**(66)**	**129**	**55**	**13**	**36**	**—**	**—**	**—**	**167**
Europe Life	**—**	**—**	**—**	**165**	**88**	**114**	**—**	**—**	**—**	**367**
Asia Life	**—**	**—**	**—**	**—**	**—**	**—**	**140**	**—**	**—**	**140**
Other Group operations (note A3)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(6)**	**(6)**
	817	**(66)**	**129**	**220**	**101**	**150**	**140**	**35**	**(6)**	**1,520**
Corporate centre (note A4)										**(116)**
Group debt costs and other interest (note A5)										**(179)**
Group adjusted operating profit before tax attributable to shareholders' profits										**1,225**

Restated[1,2] 6 months 2019	United Kingdom: UK Life[3] £m	United Kingdom: UK GI £m	Canada £m	Europe: France £m	Europe: Poland £m	Europe: Italy, Ireland & Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
UK Life and Investments, Savings & Retirement	752	—	—	—	—	—	—	60	—	812
General Insurance	—	141	89	55	9	39	(1)	—	—	332
Europe Life	—	—	—	195	85	112	—	—	—	392
Asia Life	—	—	—	—	—	—	152	—	—	152
Other Group operations (note A3)	—	—	—	—	—	—	—	—	(44)	(44)
	752	141	89	250	94	151	151	60	(44)	1,644
Corporate centre (note A4)										(97)
Group debt costs and other interest (note A5)[3]										(161)
Group adjusted operating profit before tax attributable to shareholders' profits										**1,386**

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
2 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations of Europe and Asia to their respective market segments to better reflect the management of the underlying businesses.
3 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the 6 month period ended 30 June 2019 have been amended to reclassify net interest expense from UK Life to Group debt costs and other interest of £32 million as a non-operating item. The change has no impact on the Group's adjusted operating profit before tax attributable to shareholders' profits.

Full year 2019	United Kingdom: UK Life[1] £m	United Kingdom: UK GI £m	Canada £m	Europe: France £m	Europe: Poland £m	Europe: Italy, Ireland & Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
UK Life and Investments, Savings & Retirement	1,920	—	—	—	—	—	—	96	—	2,016
General Insurance	—	250	191	65	20	69	(1)	—	—	594
Europe Life	—	—	—	408	174	245	—	—	—	827
Asia Life	—	—	—	—	—	—	276	—	—	276
Other Group operations (note A3)	—	—	—	—	—	—	—	—	(26)	(26)
	1,920	250	191	473	194	314	275	96	(26)	3,687
Corporate centre (note A4)										(183)
Group debt costs and other interest (note A5)[1]										(320)
Group adjusted operating profit before tax attributable to shareholders' profits										**3,184**

1 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the year ended 31 December 2019 have been amended to reclassify net interest expense from UK Life to Group debt costs and other interest of £65 million as a non-operating item. The change has no impact on the Group's adjusted operating profit before tax attributable to shareholders' profits.

A2 – Reconciliation of Group adjusted operating profit‡# to profit for the period

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m
Group adjusted operating profit before tax attributable to shareholders' profits	**1,225**	1,386	3,184
Adjusted for the following:			
Life business: Investment variances and economic assumption changes (note A6)	**305**	372	654
Non-life business: Short-term fluctuation in return on investments (note A7)	**(171)**	145	167
General insurance and health business: Economic assumption changes (note A8)	**(45)**	(73)	(54)
Impairment of goodwill, joint ventures, associates and other amounts expensed (note A9)	**(17)**	(11)	(15)
Amortisation and impairment of intangibles acquired in business combinations (note A10)	**(44)**	(45)	(87)
Amortisation and impairment of acquired value of in-force business (note A11)	**(165)**	(191)	(406)
Loss on the disposal and remeasurement of subsidiaries, joint ventures and associates (note A12)	**(12)**	(13)	(22)
Other (note A13)	**—**	(47)	(47)
Adjusting items before tax	**(149)**	137	190
Profit before tax attributable to shareholders' profits	**1,076**	1,523	3,374
Tax on group adjusted operating profit	**(224)**	(306)	(668)
Tax on other activities	**22**	(37)	(43)
	(202)	(343)	(711)
Profit for the period	**874**	1,180	2,663

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.

Other Group adjusted operating profit items

A3 – Other Group operations

	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Full year 2019 £m
Other Group operations	**(6)**	(44)	(26)
Total	**(6)**	(44)	(26)

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period other Group operations operating profit of £21 million. There is no impact on profit before tax.
2 Comparative amounts for the 6 month period ended 30 June 2019 have been restated to reallocate non-insurance operations of Europe Life, Asia Life and General Insurance to their respective market segments to better reflect the management of the underlying businesses.

Other Group operations includes investment return on centrally held assets, the results of our internal reinsurance businesses and the results of other operations. Total loss in relation to other operations was £6 million *(HY19 restated: £44 million)*.

The reduction of £38 million mainly reflects lower project spend and the alignment of the UK digital business with the UK Life and UK General insurance businesses during 2019.

A4 – Corporate centre

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Project spend	**(18)**	(30)	(30)
Central spend and share award costs[1]	**(98)**	(67)	(153)
Total	**(116)**	(97)	(183)

1 HY20 central spend and share award costs includes £34 million of charitable donations *(HY19: £nil)* in response to the COVID-19 pandemic. Excluding these costs, underlying central spend and share award costs are £64 million *(HY19: £67 million)*.

Corporate centre costs of £116 million *(HY19: £97 million)* increased by £19 million mainly due to Aviva's commitment to help those most affected by COVID-19, including a £10 million donation to our long-standing partner, the British Red Cross; a £5 million contribution to NHS Charities Together and a £18.5 million contribution to the COVID-19 support fund established by the Association of British Insurers, partially offset by lower project spend following completion of a number of projects and deferral of certain project activities to the second half of 2020.

A5 – Group debt costs and other interest

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
External debt			
Subordinated debt	**(170)**	(165)	(336)
Other	**(7)**	(8)	(15)
Total external debt	**(177)**	(173)	(351)
Internal lending arrangements[1]	**(25)**	(26)	(49)
Net finance income on main UK pension scheme	**23**	38	80
Total	**(179)**	(161)	(320)

1 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts have been amended to reclassify net interest expense from UK Life including Savings & Retirement to Group debt costs and other interest, of £32 million for the 6 month period ended 30 June 2019 and £65 million for the year ended 31 December 2019 as a non-operating item. The change has no impact on the Group's operating profit.

The reduction in net finance income on the main UK pension scheme is driven by the lower opening scheme surplus arising from the bulk annuity buy-in transaction in 2019 which was recognised as an actuarial loss (see note B17(b)).

Non-operating profit items

A6 – Life business: Investment variances and economic assumption changes

(a) Definitions

Group adjusted operating profit for life business is based on expected long-term investment returns on financial investments backing shareholder funds over the period, with consistent allowance for the corresponding expected movements in liabilities. Group adjusted operating profit includes the effect of variance in experience for operating items, such as mortality, persistency and expenses, and the effect of changes in operating assumptions. Changes due to economic items, such as market value movements and interest rate changes, which give rise to variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside Group adjusted operating profit, in investment variances and economic assumption changes.

(b) Methodology

The expected investment returns and corresponding expected movements in life business liabilities are calculated separately for each principal life business unit.

The expected return on investments for both policyholders' and shareholders' funds is based on opening economic assumptions applied to the expected funds under management over the reporting period. Expected investment return assumptions are derived actively, based on market yields on risk-free fixed interest assets at the end of each financial year. The same margins are applied on a consistent basis across the Group to gross risk-free yields, to obtain investment return assumptions for equity and property. Expected funds under management are equal to the opening value of funds under management, adjusted for sales and purchases during the period arising from expected operating experience.

The actual investment return is affected by differences between the actual and expected funds under management and changes in asset mix, as well as movements in interest rates. To the extent that these differences arise from the operating experience of the life business, or management decisions to change asset mix, the effect is included in the Group adjusted operating profit. The residual difference between actual and expected investment return is included in investment variances, outside Group adjusted operating profit but included in profit before tax.

The movement in liabilities included in Group adjusted operating profit reflects both the change in liabilities due to the expected return on investments and the impact of experience variances and assumption changes for non-economic items. This would include movements in liabilities due to changes in the discount rate arising from discretionary management decisions that impact on product profitability over the lifetime of products.

The effect of differences between actual and expected economic experience on liabilities, and changes to economic assumptions used to value liabilities, are taken outside Group adjusted operating profit. For many types of life business, including unit-linked and with-profits funds, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. The profit impact of economic volatility on other life business depends on the degree of matching of assets and liabilities, and exposure to financial options and guarantees.

(c) Assumptions

The expected rate of investment return is determined using consistent assumptions at the start of the period between operations, having regard to local economic and market forecasts of investment return and asset classification under IFRS.

The principal assumptions underlying the calculation of the expected investment return for equity and property are:

	Equity			Property		
	6 months 2020	6 months 2019	Full year 2019	**6 months 2020**	6 months 2019	Full year 2019
United Kingdom	**4.5%**	4.9%	4.9%	**3.0%**	3.4%	3.4%
France[1]	**4.5%**	4.3%	4.3%	**3.5%**	2.8%	2.8%
Other Eurozone	**3.7%**	4.3%	4.3%	**2.2%**	2.8%	2.8%

1 In light of the current unprecedented low interest rates, the expected investment return on equity and property in France have been determined taking into account local economic and market forecasts of the long-term return. The impact of this change is an increase of £5 million to the expected return on the life business over the first six months of 2020.

The expected return on equity and property has been calculated by reference to the ten-year mid-price swap rate for an AA rated bank in the relevant currency plus a risk premium. The use of risk premium reflects management's long-term expectations of asset return in excess of the swap yield from investing in different asset classes. The asset risk premiums are set out in the table below:

All territories	**6 months 2020**	6 months 2019	Full year 2019
Equity risk premium	**3.5%**	3.5%	3.5%
Property risk premium	**2.0%**	2.0%	2.0%

The ten-year mid-price swap rates at the start of the period are set out in the table below:

Territories	**6 months 2020**	6 months 2019	Full year 2019
United Kingdom	**1.0%**	1.4%	1.4%
Eurozone	**0.2%**	0.8%	0.8%

For fixed interest securities classified as fair value through profit or loss, the expected investment returns are based on average prospective yields for the actual assets held less an adjustment for credit risk (assessed on a best estimate basis). This includes an adjustment for credit risk on all eurozone sovereign debt. Where such securities are classified as available for sale, the expected investment return comprises the expected interest or dividend payments and amortisation of the premium or discount at purchase.

A6 – Life business: Investment variances and economic assumption changes continued

(d) Investment variances and economic assumption changes

The investment variances and economic assumption changes excluded from the life adjusted operating profit are as follows:

Life business	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m
Investment variances and economic assumptions	**305**	372	654

Investment variances and economic assumption changes were £305 million *(HY19: £372 million).* This is primarily due to the UK where there was a positive variance as a result of a reduction in yields and decreases in equity markets, partially offset by the adverse impact of a widening of fixed income spreads in the UK and falls in interest rates in France and Asia. The impact of yields and equities reflect the fact that we hedge on an economic rather than on an IFRS basis.

At 30 June 2019 and 31 December 2019, we included a specific allowance for the possible adverse impacts of the UK's exit from the European Union on UK commercial and residential property, which we have now removed. Our future property growth assumptions are updated on a quarterly basis and as at 30 June 2020 they include a cumulative 5-year growth rate assumption, from 2020-24 of -15% for commercial property and a 12% reduction followed by long-term growth rate for residential property.

The variance in the period to 30 June 2019 was primarily due to reductions in yields and a narrowing of fixed income spreads, partially offset by the impact of increases in equities that reflects the fact that we hedge on an economic rather than on an IFRS basis.

A7 – Non-life business: Short-term fluctuation in return on investments

(a) Definitions

Group adjusted operating profit for non-life business is based on an expected long-term investment return over the period. Any variance between the total investment return (including realised and unrealised gains) and the expected return over the period is disclosed separately outside Group adjusted operating profit, in short-term fluctuations.

(b) Methodology

The long-term investment return is calculated separately for each principal non-life market. In respect of equities and investment properties, the return is calculated by multiplying the opening market value of the investments, adjusted for sales and purchases during the year, by the long-term rate of investment return.

The long-term rate of investment return is determined using consistent assumptions between operations, having regard to local economic and market forecasts of investment return. The allocated long-term return for other investments (including debt securities) is the actual income receivable for the year. Actual income and long-term investment return both contain the amortisation of the discounts/premium arising on the acquisition of fixed income securities. For other operations, the long-term return reflects assets backing non-life business held in Group centre investments.

Market value movements which give rise to variances between actual and long-term investment returns are disclosed separately in short-term fluctuations outside Group adjusted operating profit.

The impact of realised and unrealised gains and losses on Group centre investments, including the centre hedging programme which is designed to economically protect the total Group's capital against adverse equity and foreign exchange movements, is included in short-term fluctuations on other operations.

(c) Assumptions

The principal assumptions underlying the calculation of the long-term investment return are:

	Long-term rates of return on equities			**Long-term rates of return on property**		
	6 months 2020	6 months 2019	Full year 2019	**6 months 2020**	6 months 2019	Full year 2019
United Kingdom	**4.5%**	4.9%	4.9%	**3.0%**	3.4%	3.4%
France[1]	**4.5%**	4.3%	4.3%	**3.5%**	2.8%	2.8%
Other Eurozone	**3.7%**	4.3%	4.3%	**2.2%**	2.8%	2.8%
Canada	**5.7%**	6.0%	6.0%	**4.2%**	4.5%	4.5%

1 In light of the current unprecedented low interest rates, the expected investment return on equity and property in France have been determined taking into account local economic and market forecasts of the long-term return. The impact of this change is an increase of £2 million to the expected return on the general insurance business over the first six months of 2020.

The long-term rates of return on equities and properties have been calculated by reference to the ten-year mid-price swap rate for an AA rated bank in the relevant currency plus a risk premium. The underlying reference rates and risk premiums for the United Kingdom and Eurozone are shown in note A6(c).

A7 – Non-life business: Short-term fluctuation in return on investments continued

(d) Analysis of investment return

The total investment income on our non-life business, including short-term fluctuations, are as follows:

General Insurance and health	**6 months 2020 £m**	6 months 2019 £m	Full year 2019 £m
Analysis of investment income:			
– Net investment income	**113**	427	622
– Foreign exchange (losses)/gains and other charges	**(47)**	(4)	55
	66	423	677
Analysed between:			
– Long-term investment return, reported within Group adjusted operating profit	**175**	186	381
– Short-term fluctuations in investment return, reported outside Group adjusted operating profit	**(109)**	237	296
	66	423	677
Short-term fluctuations:			
– General insurance and health	**(109)**	237	296
– Other operations[1]	**(62)**	(92)	(129)
Total short-term fluctuations	**(171)**	145	167

1 Other operations represents short-term fluctuations on assets backing non-life business in Group centre investments, including the centre hedging programme.

The short-term fluctuations during the first half of 2020 of £171 million adverse is primarily due to falling equity markets and foreign exchange losses. These losses are partly offset by an increase in the value of fixed income securities, as a result of falls in interest rates outweighing widening credit spreads, and gains on hedges held by the Group, including the Group centre hedging programme.

The short-term fluctuations during the first half of 2019 of £145 million favourable were driven by falling interest rates increasing the value of fixed income securities and rising equity markets. These fluctuations were partly offset by losses on hedges held by the Group, including the centre hedging programme.

A8 – General insurance and health business: Economic assumption changes

In the general insurance and health business, there is a negative impact of £45 million *(HY19: £73 million negative)* primarily as a result of a decrease in interest rates used to discount claims reserves for both periodic payment orders (PPOs) and latent claims, partly offset by a decrease in the estimated future inflation rate used to value PPOs.

A9 – Impairment of goodwill, joint ventures, associates and other amounts expensed

Impairment of goodwill, associates and joint ventures and other amounts expensed in the year is a charge of £17 million *(HY19: £11 million charge)*.

A10 – Amortisation and impairment of intangibles acquired in business combinations

Following a change in the definition of the Group adjusted operating profit APM in the second half of 2019, the comparative for the six-month period to 30 June 2019 has been restated to only include amortisation and impairment of intangible assets acquired in business combinations. Amortisation and impairment of intangible assets acquired in business combinations is a charge of £44 million *(HY19: £45 million charge)*.

A11 – Amortisation and impairment of acquired value of in-force business

Amortisation of acquired value of in-force business (AVIF) is a charge of £165 million *(HY19: £191 million charge)*, which relates solely to amortisation in respect of the Group's subsidiaries and joint ventures. Impairment charges of £19 million in relation to Friends Provident International Limited (FPI) remeasurement losses are recorded within loss on disposal and remeasurement of subsidiaries, joint ventures and associates. See note A12.

A12 – Loss on the disposal and remeasurement of subsidiaries, joint ventures and associates

The total Group loss on disposal and remeasurement of subsidiaries, joint ventures and associates is £12 million *(HY19: £13 million loss)*. This consists of £7 million of gains relating to small disposals and a £19 million remeasurement loss relating to FPI. Further details of these items are provided in note B5.

A13 – Other

Other items are those items that, in the directors' view, are required to be separately disclosed by virtue of their nature or incidence to enable a full understanding of the Group's financial performance. In the period to 30 June 2020, there are no other items *(HY19: charge of £47 million)*.

IFRS capital
A14 – Net asset value

	6 months 2020 £m	pence per share[‡2]	Restated[3] 6 months 2019 £m	Restated[3] pence per share[‡]	Full year 2019 £m	pence per share[‡2]
Equity attributable to shareholders of Aviva plc at 1 January[1]	**17,008**	**434p**	16,558	424p	16,558	424p
Adjustment at 1 January 2019 for adoption of IFRS 16[4]	**—**	**—**	(110)	(3)p	(110)	(3)p
Equity attributable to shareholders of Aviva plc at 1 January restated[1]	**17,008**	**434p**	16,448	421p	16,448	421p
Group adjusted operating profit	**1,225**	**31p**	1,386	35p	3,184	80p
Investment return variances and economic assumption changes on life and non-life business	**89**	**2p**	444	11p	767	19p
Loss on the disposal and remeasurements of subsidiaries, joint ventures and associates	**(12)**	**—**	(13)	—	(22)	(1)p
Goodwill impairment and amortisation of intangibles	**(61)**	**(2)p**	(56)	(1)p	(102)	(3)p
Amortisation and impairment of acquired value of in-force business	**(165)**	**(4)p**	(191)	(5)p	(406)	(10)p
Other[5]	**—**	**—**	(47)	(1)p	(47)	(1)p
Tax on operating profit and on other activities	**(202)**	**(5)p**	(343)	(10)p	(711)	(18)p
Non-controlling interests	**(53)**	**(1)p**	(64)	(2)p	(115)	(3)p
Profit after tax attributable to shareholders of Aviva plc	**821**	**21p**	1,116	27p	2,548	63p
AFS securities fair value and other reserve movements	**11**	**—**	40	1p	41	1p
Ordinary dividends	**—**	**—**	(812)	(21)p	(1,184)	(30)p
Direct capital instrument and tier 1 notes interest and preference share dividend[6]	**(36)**	**(1)p**	(15)	—	(51)	(1)p
Foreign exchange rate movements	**248**	**6p**	76	2p	(170)	(4)p
Remeasurements of pension schemes (net of tax)	**511**	**13p**	50	1p	(763)	(19)p
Other net equity movements	**13**	**—**	37	1p	139	3p
Equity attributable to shareholders of Aviva plc at 30 June/31 December[1]	**18,576**	**473p**	16,940	432p	17,008	434p

1 Excluding preference shares of £200 million *(HY19: £200 million, 2019: £200 million)*.
2 Number of shares as at 30 June 2020: 3,928 million *(HY19: 3,917 million, 2019: 3,921 million)*.
3 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
4 The Group has adopted IFRS 16 Leases from 1 January 2019. In line with the transition options available, impact of the adoption has been shown as an adjustment to opening retained earnings in 2019. See note B1 for further information.
5 Other in 2019 relates to a charge of £45 million in relation to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims and a charge of £2 million relating to negative goodwill which arose on the acquisition of Friends First.
6 On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million DCI at its principal amount together with accrued interest to (but excluding) 27 July 2020. Interest payable up to 23 June 2020 has been recorded as an appropriation of retained profits with the remaining interest payable from 24 June 2020 to 30 June 2020 recorded within Group adjusted operating profit. In prior periods, the interest on the DCI and tier 1 notes was treated as an appropriation of retained profits and accordingly, accounted for when paid.

At 30 June 2020, IFRS net asset value per share was 473 pence *(HY19: 432 pence, 2019: 434 pence)*. The increase from 31 December 2019 is mainly due to operating profit and remeasurement of pension schemes (net of tax) (see note B17).

A15 – Analysis of return on equity

6 months 2020	Operating profit Before tax £m	Operating profit After tax £m	Weighted average shareholders' funds including non-controlling interests £m	Return on equity %
UK Life and Investments, Savings & Retirement				
UK Life including Savings & Retirement	**817**	**655**	**11,274**	**11.6%**
Aviva Investors	**35**	**24**	**511**	**9.4%**
General Insurance	**167**	**128**	**3,545**	**7.2%**
Europe Life	**367**	**287**	**3,833**	**15.0%**
Asia Life	**140**	**136**	**1,744**	**15.6%**
Other Group activities[1]	**(124)**	**(85)**	**6,489**	**N/A**
Return on total capital employed	**1,402**	**1,145**	**27,396**	**8.4%**
Subordinated debt	**(170)**	**(138)**	**(6,767)**	**4.1%**
Senior debt	**(7)**	**(6)**	**(1,392)**	**0.9%**
Return on total equity	**1,225**	**1,001**	**19,237**	**10.4%**
Less: Non-controlling interests		**(48)**	**(995)**	**9.6%**
Direct capital instrument and tier 1 notes		**(27)**	**(250)**	**5.4%**
Preference shares		**(9)**	**(200)**	**9.0%**
Return on equity shareholders' funds		**917**	**17,792**	**10.5%**

1 The other Group activities operating loss before tax of £124 million comprises corporate costs of £116 million and other business operating loss of £6 million, interest on internal lending arrangements of £25 million, partly offset by finance income on the main UK pension scheme of £23 million.

Restated[1] 6 months 2019	Operating profit Before tax £m	Operating profit After tax £m	Weighted average shareholders' funds including non-controlling interests £m	Return on equity %
UK Life and Investments, Savings & Retirement				
UK Life including Savings & Retirement[2]	752	606	10,227	11.8%
Aviva Investors	60	44	522	16.9%
General Insurance	332	254	3,709	13.7%
Europe Life	392	276	3,697	14.9%
Asia Life	152	140	1,757	15.9%
Other Group activities[2,3]	(129)	(101)	6,438	N/A
Return on total capital employed	1,559	1,219	26,350	9.3%
Subordinated debt	(165)	(133)	(6,334)	4.2%
Senior debt	(8)	(6)	(1,363)	0.9%
Return on total equity	1,386	1,080	18,653	11.6%
Less: Non-controlling interests		(47)	(972)	9.7%
Direct capital instrument and tier 1 notes		(6)	(730)	4.9%
Preference shares		(9)	(200)	8.5%
Return on equity shareholders' funds		1,018	16,751	12.0%

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the 6 month period ending 30 June 2019 have been amended to reclassify net interest expense from UK Life including Savings & Retirement to Other Group activities, of before tax £32 million (after tax £26 million) as a non-operating item. The change has no impact on the Group's operating profit.
3 The other Group activities operating loss before tax of £129 million comprises corporate costs of £97 million and other business operating loss of £44 million, interest expense on internal lending arrangements of £26 million (restated), partly offset by finance income on the main UK pension scheme of £38 million.

A15 – Analysis of return on equity continued

Full year 2019	Operating profit Before tax £m	Operating profit After tax £m	Weighted average shareholders' funds including non-controlling interests £m	Return on equity %
UK Life and Investments, Savings & Retirement				
UK Life including Savings & Retirement[1]	1,920	1,606	10,318	15.6%
Aviva Investors	96	66	514	12.8%
General Insurance	594	447	3,674	12.2%
Europe Life	827	568	3,698	15.4%
Asia Life	276	245	1,769	13.8%
Other Group activities[1,2]	(178)	(132)	6,386	N/A
Return on total capital employed	3,535	2,800	26,359	10.6%
Subordinated debt	(336)	(272)	(6,303)	4.3%
Senior debt	(15)	(12)	(1,345)	0.9%
Return on total equity	3,184	2,516	18,711	13.4%
Less: Non-controlling interests		(98)	(975)	10.1%
Direct capital instrument and tier 1 notes		(34)	(674)	5.0%
Preference shares		(17)	(200)	8.5%
Return on equity shareholders' funds		2,367	16,862	14.0%

1 Following a review of the presentation of intercompany loan interest, comparative amounts for the year ended 31 December 2019 have been amended to reclassify net interest expense from UK Life including Savings & Retirement to Other Group Activities, of before tax £65 million (after tax £53 million) as a non-operating item. The change has no impact on the Group's operating profit.
2 The other Group activities operating loss before tax of £178 million comprises corporate costs of £183 million and other business operating loss of £26 million, interest expense on internal lending arrangements of £49 million (restated), partly offset by finance income on the main UK pension scheme of £80 million.

A16 – Group capital under IFRS basis

The table below shows how our capital is deployed by market and how that capital is funded.

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
UK Life and Investments, Savings & Retirement			
UK Life including Savings & Retirement	**11,799**	10,066	10,751
Aviva Investors	**510**	502	512
General Insurance[1]	**3,487**	3,668	3,603
Europe Life	**4,003**	3,727	3,663
Asia Life	**1,737**	1,811	1,749
Other Group activities[1,2]	**7,074**	6,770	5,903
Total capital employed	**28,610**	26,544	26,181
Financed by			
Equity shareholders' funds	**18,576**	16,940	17,008
Non-controlling interests	**1,012**	979	977
Direct capital instrument and tier 1 notes	**—**	731	500
Preference shares	**200**	200	200
Subordinated debt	**7,328**	6,333	6,206
Senior debt	**1,494**	1,361	1,290
Total capital employed[3]	**28,610**	26,544	26,181

1 Capital employed for United Kingdom General Insurance excludes £0.9 billion *(HY19: £0.9 billion, 2019: £0.9 billion)* of goodwill which does not support the general insurance business for capital purposes and is included in other Group activities.
2 Other Group activities include centrally held tangible net assets, the main UK staff pension scheme surplus and internal lending arrangements. These internal lending arrangements, which net out on consolidation, include the formal loan arrangement between Aviva Group Holdings Limited and Aviva Insurance Limited.
3 Goodwill, AVIF and other intangibles are maintained within the capital base. Goodwill includes goodwill in subsidiaries of £1,850 million *(HY19: £1,871 million, 2019: £1,855 million)* and goodwill in joint ventures of £10 million *(HY19: £12 million, 2019: £11 million)*. AVIF and other intangibles comprise £2,649 million *(HY19: £3,024 million, 2019: £2,800 million)* of intangibles in subsidiaries and £25 million *(HY19: £30 million, 2019: £27 million)* of intangibles in joint ventures, net of deferred tax liabilities of £(437) million *(HY19: £(445) million, 2019: £(413) million)* and the non-controlling interest share of intangibles of £(26) million *(HY19: £(32) million, 2019: £(28) million)*.

Total capital employed is financed by a combination of equity shareholders' funds, preference capital, subordinated debt and other borrowings.

On 21 November 2019, the Group redeemed its £210 million 6.875% Step-up Tier One Capital Securities (STICS) in full at the first call date.

On 23 June 2020, notification was given that the Group would redeem 5.9021% £500 million direct capital instrument (DCI) at its principal amount together with accrued interest to (but excluding) 27 July 2020. At that date, the instrument was reclassified as a financial liability of £499 million, representing its fair value (see note B16). The difference of £1 million has been charged to retained earnings. On 27 July 2020, the instrument was redeemed in full at a cost of £500 million.

At 30 June 2020 the market value of our external debt (subordinated debt and senior debt) and preference shares (including both Aviva plc preference shares of £200 million and General Accident plc preference shares, within non-controlling interests, of £250 million) was £10,307 million. The market value of our external debt (subordinated debt and senior debt), preference shares (including both Aviva plc preference shares of £200 million and General Accident plc preference shares, with non-controlling interests, of £250 million), and direct capital instrument and Tier 1 notes was £9,111 million at 30 June 2019 and £9,763 million at 31 December 2019.

IFRS financial statements

In this section

Condensed consolidated income statement

For the six month period ended 30 June 2020

	Note	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Income				
Gross written premiums		**15,229**	15,211	31,243
Premiums ceded to reinsurers		**(2,005)**	(1,442)	(3,563)
Premiums written net of reinsurance		**13,224**	13,769	27,680
Net change in provision for unearned premiums		**(199)**	(273)	(209)
Net earned premiums		**13,025**	13,496	27,471
Fee and commission income		**1,074**	1,011	2,141
Net investment (expense)/income		**(3,639)**	28,014	40,577
Share of profit after tax of joint ventures and associates		**66**	62	85
Loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	B5(b)	**(12)**	(13)	(22)
		10,514	42,570	70,252
Expenses				
Claims and benefits paid, net of recoveries from reinsurers		**(10,995)**	(11,824)	(23,096)
Change in insurance liabilities, net of reinsurance	B10(b)	**(3,520)**	(5,448)	(5,702)
Change in investment contract provisions		**6,945**	(15,927)	(24,095)
Change in unallocated divisible surplus	B15	**1,334**	(2,838)	(3,985)
Fee and commission expense		**(1,553)**	(2,648)	(5,536)
Other expenses		**(1,643)**	(1,552)	(3,329)
Finance costs		**(278)**	(285)	(576)
		(9,710)	(40,522)	(66,319)
Profit before tax		**804**	2,048	3,933
Tax attributable to policyholders' returns	B7(d)	**272**	(525)	(559)
Profit before tax attributable to shareholders' profits		**1,076**	1,523	3,374
Tax income/(expense)	B7(d)	**70**	(868)	(1,270)
Less: tax attributable to policyholders' returns	B7(d)	**(272)**	525	559
Tax attributable to shareholders' profits	B7(d)	**(202)**	(343)	(711)
Profit for the period		**874**	1,180	2,663
Attributable to:				
Equity holders of Aviva plc		**821**	1,116	2,548
Non-controlling interests		**53**	64	115
Profit for the period		**874**	1,180	2,663
Earnings per share	B8			
Basic (pence per share)		**20.0**	28.2	63.8
Diluted (pence per share)		**19.7**	27.9	63.1

Condensed consolidated statement of comprehensive income

For the six month period ended 30 June 2020

	Note	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Profit for the period		**874**	1,180	2,663
Other comprehensive income:				
Items that may be reclassified subsequently to income statement				
Investments classified as available for sale				
Fair value gains		**3**	48	39
Fair value gains transferred to profit on disposals		**(1)**	(3)	(19)
Share of other comprehensive income of joint ventures and associates		**7**	9	22
Foreign exchange rate movements		**311**	79	(219)
Aggregate tax effect – shareholder tax on items that may be reclassified subsequently to income statement	B7(b)	**(13)**	(18)	6
Items that will not be reclassified to income statement				
Owner-occupied properties – fair value gains		**—**	1	3
Remeasurements of pension schemes	B17(b)	**711**	70	(867)
Aggregate tax effect – shareholder tax on items that will not be reclassified subsequently to income statement	B7(b)	**(200)**	(20)	103
Total other comprehensive income, net of tax		**818**	166	(932)
Total comprehensive income for the period		**1,692**	1,346	1,731
Attributable to:				
Equity holders of Aviva plc		**1,591**	1,282	1,655
Non-controlling interests		**101**	64	76
		1,692	1,346	1,731

Condensed consolidated statement of changes in equity

For the six month period ended 30 June 2020

	Note	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Balance at 1 January as reported		**18,685**	18,455	18,455
Adjustment at 1 January 2019 for adoption of IFRS 16[1]		**—**	(110)	(110)
Balance at 1 January restated[1]		**18,685**	18,345	18,345
Profit for the period		**874**	1,180	2,663
Other comprehensive income		**818**	166	(932)
Total comprehensive income for the period		**1,692**	1,346	1,731
Dividends and appropriations	B9	**(36)**	(828)	(1,244)
Non-controlling interests share of dividends declared in the period		**(18)**	(50)	(63)
Reclassification of DCI and tier 1 notes to financial liabilities[2]		**(499)**	—	(210)
Reserves credit for equity compensation plans		**10**	30	62
Shares issued under equity compensation plans		**4**	6	18
Treasury shares held by subsidiary companies		**—**	—	13
Forfeited dividend income		**—**	—	4
Changes in non-controlling interests in subsidiaries		**(50)**	(1)	(2)
Change in equity accounted option		**—**	—	22
Aggregate tax effect – shareholder tax		**—**	2	9
Balance at 30 June/31 December		**19,788**	18,850	18,685

1 The Group adopted IFRS 16 *Leases* from 1 January 2019. In line with the transition options available, the adoption was shown as an adjustment to opening retained earnings in 2019. See note B1 for further information.
2 On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million direct capital instrument (DCI) at its principal amount together with accrued interest to (but excluding) 27 July 2020. At the date of notification, the instrument was reclassified as a financial liability of £499 million, representing its fair value (see note B16). The difference of £1 million has been charged to retained earnings. On 27 July 2020, the instrument was redeemed in full at a cost of £500 million. On 17 October 2019, notification was given that the Group would redeem the 6.875% £210 million tier 1 notes. At that date, the instrument was reclassified as a financial liability of £210 million, representing its fair value at that date. On 21 November 2019, the instrument was redeemed in full at a cost of £210 million. The difference between its carrying amount of £231 million and fair value of £210 million was charged to retained earnings.

Condensed consolidated statement of financial position

As at 30 June 2020

	Note	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Assets				
Goodwill		**1,850**	1,871	1,855
Acquired value of in-force business and intangible assets	B23	**2,649**	3,024	2,800
Interests in, and loans to, joint ventures		**1,163**	1,226	1,227
Interests in, and loans to, associates		**336**	311	304
Property and equipment		**926**	972	889
Investment property		**11,306**	11,471	11,203
Loans		**40,109**	39,452	38,579
Financial investments		**353,583**	343,858	343,418
Reinsurance assets	B13	**13,307**	12,414	12,356
Deferred tax assets		**162**	171	151
Current tax assets		**181**	81	132
Receivables		**13,003**	9,767	8,995
Deferred acquisition costs		**3,291**	3,215	3,156
Pension surpluses and other assets		**3,467**	3,522	2,799
Prepayments and accrued income		**3,051**	3,050	3,143
Cash and cash equivalents		**19,125**	15,296	19,524
Assets of operations classified as held for sale	B5(c)	**9,330**	8,524	9,512
Total assets		**476,839**	458,225	460,043
Equity				
Capital				
Ordinary share capital		**982**	979	980
Preference share capital		**200**	200	200
		1,182	1,179	1,180
Capital reserves				
Share premium		**1,242**	1,225	1,239
Capital redemption reserve		**44**	44	44
Merger reserve		**8,974**	8,974	8,974
		10,260	10,243	10,257
Treasury shares		**(5)**	(18)	(7)
Currency translation reserve		**1,231**	1,192	814
Other reserves		**(286)**	(251)	(101)
Retained earnings		**6,394**	4,795	5,065
Equity attributable to shareholders of Aviva plc		**18,776**	17,140	17,208
Direct capital instrument and tier 1 notes		**—**	731	500
Equity excluding non-controlling interests		**18,776**	17,871	17,708
Non-controlling interests		**1,012**	979	977
Total equity		**19,788**	18,850	18,685
Liabilities				
Gross insurance liabilities	B11	**157,598**	150,413	149,338
Gross liabilities for investment contracts	B12	**222,112**	218,881	222,127
Unallocated divisible surplus	B15	**8,748**	8,841	9,597
Net asset value attributable to unitholders		**18,669**	16,764	16,610
Pension deficits and other provisions		**1,405**	1,338	1,565
Deferred tax liabilities		**2,045**	2,305	2,155
Current tax liabilities		**163**	526	569
Borrowings	B16	**10,356**	9,234	9,039
Payables and other financial liabilities		**24,134**	19,818	18,138
Other liabilities		**2,888**	3,065	3,094
Liabilities of operations classified as held for sale	B5(c)	**8,933**	8,190	9,126
Total liabilities		**457,051**	439,375	441,358
Total equity and liabilities		**476,839**	458,225	460,043

Condensed consolidated statement of cash flows

For the six month period ended 30 June 2020

	Note	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Cash flows from operating activities[1]				
Cash generated from operating activities		**67**	824	6,517
Tax paid		**(734)**	(173)	(549)
Total net cash (used in)/from operating activities		**(667)**	651	5,968
Cash flows from investing activities				
Acquisitions of, and additions to, subsidiaries, joint ventures and associates, net of cash acquired		**(11)**	(13)	(19)
Disposals of subsidiaries, joint ventures and associates, net of cash transferred		**7**	12	12
Repayment of loans to joint ventures and associates		**—**	5	—
Purchases of property and equipment		**(71)**	(52)	(84)
Proceeds on sale of property and equipment		**2**	3	4
Purchases of intangible assets		**(35)**	(32)	(63)
Total net cash used in investing activities		**(108)**	(77)	(150)
Cash flows from financing activities				
Proceeds from issue of ordinary shares		**4**	12	27
Treasury shares purchased for employee trusts		**—**	(6)	(9)
New borrowings drawn down, net of expenses		**617**	187	580
Repayment of borrowings[2]		**(35)**	(358)	(927)
Net drawdown/(repayment) of borrowings		**582**	(171)	(347)
Interest paid on borrowings		**(269)**	(274)	(553)
Preference dividends paid	B9	**(9)**	(9)	(17)
Ordinary dividends paid	B9	**—**	(812)	(1,184)
Forfeited dividend income		**—**	—	4
Coupon payments on direct capital instrument and tier 1 notes	B9	**—**	(7)	(43)
Dividends paid to non-controlling interests of subsidiaries		**(18)**	(50)	(63)
Other[3]		**—**	—	(5)
Total net cash from/(used in) financing activities		**290**	(1,317)	(2,190)
Total net (decrease)/increase in cash and cash equivalents		**(485)**	(743)	3,628
Cash and cash equivalents at 1 January		**19,434**	16,051	16,051
Effect of exchange rate changes on cash and cash equivalents		**326**	11	(245)
Cash and cash equivalents at 30 June/31 December	B21	**19,275**	15,319	19,434

1 Cash flows from operating activities include interest received of £2,929 million *(HY19: £2,876 million, 2019: £5,834 million)* and dividends received of £1,672 million *(HY19: £2,748 million, 2019: £5,614 million)*.
2 The second half of 2019 includes the redemption of 6.875% £210 million tier 1 notes.
3 The second half of 2019 includes a £5 million donation of forfeited dividend income to a charitable foundation.

B1 – Basis of preparation

The condensed consolidated interim financial statements for the six months to 30 June 2020 have been prepared in accordance with IAS 34 *Interim Financial Reporting*, as endorsed by the European Union (EU), and the Disclosure Rules and Transparency Rules of the Financial Conduct Authority.

The results for the six months to 30 June 2020 are unaudited but have been reviewed by the Auditor, PricewaterhouseCoopers LLP. The interim results do not constitute statutory accounts as defined in Section 434 of the Companies Act 2006. The comparative results for the full year 2019 have been taken from the Group's 2019 annual report and accounts. Therefore, these interim financial statements should be read in conjunction with the 2019 annual report and accounts that were prepared in accordance with IFRS, as endorsed by the EU, and those parts of the Companies Act 2006 applicable to those reporting under IFRS. PricewaterhouseCoopers LLP reported on the 2019 financial statements and their report was unqualified and did not contain a statement under section 498 (2) or (3) of the Companies Act 2006. The Group's 2019 annual report and accounts has been filed with the Registrar of Companies.

Items included in the financial statements of each of the Group's entities are measured in the currency of the primary economic environment in which that entity operates (the functional currency). The condensed consolidated financial statements are stated in pounds sterling, which is the Company's functional and presentational currency. Unless otherwise noted, the amounts shown in the financial statements are in millions of pounds sterling (£m).

Going concern

A detailed going concern review has been undertaken as part of the 2020 interim reporting process. This review includes consideration of the Group's current and forecast solvency and liquidity positions over a minimum two-year period and the results of stress and scenario testing. The range of scenarios allow for the potential impacts of COVID-19 both directly on the operations of the Group and also on the wider macroeconomic environment.

Even in severe downside scenarios, no material uncertainty in relation to going concern has been identified, due to the Group's strong solvency and liquidity positions providing considerable resilience to external shocks, underpinned by the Group's approach to risk management (see note B20).

After making enquiries, the directors have a reasonable expectation that the Group has adequate resources to continue in operational existence over a period of at least twelve months from the date of approval of the interim financial statements. For this reason, the Group continues to adopt the going concern basis in preparing the interim financial statements.

Accounting policies

The accounting policies applied in the condensed consolidated interim financial statements are the same as those applied in Aviva plc's 2019 annual report and accounts.

IFRS 16 Leases

On 1 January 2019, the Group adopted IFRS 16 *Leases*. The Group accounting policy is set out in the Group's 2019 annual report and accounts. The Group chose to adopt the modified retrospective approach on transition as permitted under IFRS 16. This approach did not require prior period comparatives to be restated, and the impact of adoption of the standard on retained earnings was shown as an adjustment to opening retained earnings. This resulted in a reduction of retained earnings of £110 million at 1 January 2019. This reflected the fact that the right of use assets and lease liabilities amortise to £nil at different rates over the lease term. There were corresponding increases in the value of assets (£434 million) and liabilities (£544 million), representing the right of use assets and lease liabilities, net of any associated tax impacts, not previously recognised on the balance sheet in accordance with IAS 17. There was no material impact on profit before tax.

B2 – Changes to comparative amounts

On 31 December 2019, the Group adjusted operating profit APM was amended and now includes amortisation and impairment of internally generated intangible assets to provide more relevant information by better reflecting their operational nature. These assets include advisor platforms, digital distribution channels and claims and policy administration systems which are used to support operational activities. Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations as these items principally relate to merger and acquisition activity which we view as strategic in nature. The effect of this change was to move £62 million relating to amortisation of internally generated intangible assets into Group adjusted operating profit for the first six months of 2019. The HY19 comparative figures have been restated in the Reconciliation of Group adjusted operating profit to profit for the period and the Segmental Income statement (see note B6). The relevant EPS metrics (operating EPS and diluted operating EPS) for HY19 have also been restated (see note B8). There is no impact from this change on profit before tax attributable to shareholders' profits.

B3 – Significant events since the previous reporting period

On 11 March 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus disease, COVID-19, a global pandemic. This represents a major development since the previous reporting period to 31 December 2019.

Governments in affected areas have imposed a number of measures designed to contain the outbreak, including business closures, travel restrictions, stay at home orders and prohibition of gatherings and events. The spread of COVID-19 has resulted in a sharp economic downturn in jurisdictions in which the Group operates and the global economy more widely, as well as causing increased volatility and declines in financial markets. The global impacts of COVID-19 have given rise to unprecedented uncertainty and could give rise to a severe economic downturn that may adversely impact the results of the Group. However, the strength of the Group's capital and liquidity means it is well positioned to manage this crisis and continue to support customers.

This note sets out the areas of significant impact of COVID-19 on the Group's results.

Business and performance

Information presented in this report represents the performance of the business in the period to 30 June 2020.

Long-term business

The Group's life insurance business is long-term in nature. As such the ultimate impact of COVID-19 has a high degree of uncertainty and will emerge over a long period of time. The reported results include a net £25 million increase in long-term insurance contract liabilities as a result of the non-economic impacts of COVID-19, noting that this includes the offsetting impacts of an increase attributable to mortality and a decrease attributable to longevity assumptions. The valuation of the Group's long-term insurance liabilities is closely linked to market movements and therefore the impact of COVID-19 on global markets has had a consequential impact on the valuation of the Group's long-term business. It is not possible however to disaggregate the impact of the pandemic from wider economic movements in the period, and as such quantification of the economic impact of COVID-19 on long term insurance contract liabilities is not possible. The effect of COVID-19 on assumptions and estimates for the long-term business is set out in note B14.

General insurance and health

The impact of COVID-19 on general insurance and health claims reported in the period is estimated as £165 million, net of reinsurance. Claims are primarily as a result of disruption to business and travel insured by the Group, partially offset by a reduction in the frequency of motor claims. Further information on the impact of COVID-19 on general insurance and health liabilities can be found within note B11 (c).

Fund management

The widespread impact of COVID-19 on financial markets has led to an observed fall in the Group's fund management fee income. Further information on the revenue earned by the Group's fund management segment can be found within note B6(b).

Risk profile

Note B20 has been updated to reflect the impact of COVID-19 on the risk environment within which the Group operates and the way in which the pandemic has had an impact on the Group's material risk exposures. This includes descriptions of key actions taken to mitigate these changes in risk exposures since the previous reporting period.

Fair value measurement

The increased volatility and declines in both the value and level of trading in financial markets arising from COVID-19 has led to changes in the value of the Group's assets and liabilities held at fair value, primarily relating to equity securities where reductions in value have been driven by market movements. Further information on the fair value of the Group's assets and liabilities and the methodology for calculating this fair value is set out in note B19.

Capital management

The Group is taking a cautious approach on capital given the uncertain economic outlook. The Group's balance sheet exposure and solvency position has been reviewed and actions taken to protect the solvency position and further reduce the sensitivity to economic shocks. The estimated Solvency II regulatory own funds is £28.4 billion at 30 June 2020 *(2019: £28.3 billion)* and the estimated Solvency II shareholder own funds is £24.6 billion *(2019: £24.5 billion)*. The movement in the period to 30 June 2020 reflects adverse capital market impacts on asset valuations offset by a decrease in interest rates and capital generation in the first half of 2020. The estimated impact of COVID-19 on general insurance and long-term business liabilities have been recognised in the Group capital position.

Other

(i) Dividend

Due to the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy, on 8 April 2020, the Board of Directors agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020.

Subsequent to 30 June 2020, the directors declared a second interim dividend in respect of 2019 of 6.00 pence per ordinary share, amounting to £250 million recognising the strong capital and centre liquidity position, enhanced by receipt of proceeds from the sale of FPI.

Further details can be found in note B9.

B4 – Exchange rates

The Group's principal overseas operations during the period were located within the eurozone, Canada and Poland. The results and cash flows of these operations have been translated into pounds sterling at the average rates for the period and the assets and liabilities have been translated at the period end rates as follows:

	6 months 2020	6 months 2019	Full year 2019
Eurozone			
Average rate (€1 equals)	**£0.88**	£0.88	£0.88
Period end rate (€1 equals)	**£0.91**	£0.89	£0.85
Canada			
Average rate ($CAD1 equals)	**£0.58**	£0.58	£0.59
Period end rate ($CAD1 equals)	**£0.59**	£0.60	£0.58
Poland			
Average rate (PLN1 equals)	**£0.20**	£0.20	£0.20
Period end rate (PLN1 equals)	**£0.20**	£0.21	£0.20

B5 – Subsidiaries, joint ventures and associates

This note provides details of the acquisitions and disposals of subsidiaries, joint ventures and associates that the Group has made during the period, together with the details of business held for sale at the period end.

(a) Acquisitions

The Group completed the acquisition of a further 40% shareholding in Wealthify, a Group subsidiary, for a consideration of £11 million. Following the transaction, Wealthify is now a wholly owned subsidiary.

(b) Disposals and remeasurements

The loss on disposal and remeasurement of subsidiaries, joint ventures and associates comprises:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Disposals	7	6	6
Held for sale remeasurements	(19)	(19)	(28)
Total loss on disposal and remeasurements	(12)	(13)	(22)

The loss on the disposal and remeasurement of subsidiaries, joint ventures and associates during the period of £12 million *(HY19: loss of £13 million)* consists of £7 million of gains relating to small disposals and a £19 million remeasurement loss relating to Friends Provident International (FPI). See note B5(c).

(c) Assets and liabilities of operations classified as held for sale

The assets and liabilities of operations classified as held for sale as at 30 June 2020 are as follows:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Assets			
Acquired value of in-force business and intangible assets	**447**	576	526
Interests in, and loans to, joint ventures and associates	**56**	—	8
Property and equipment	**8**	5	8
Loans	**1**	—	1
Financial investments	**7,634**	6,909	7,824
Reinsurance assets	**44**	53	75
Other assets	**278**	283	290
Cash and cash equivalents	**862**	698	780
Total assets	**9,330**	8,524	9,512
Liabilities			
Gross insurance liabilities	**668**	118	687
Gross liabilities for investment contracts	**8,123**	8,022	8,324
External borrowings	**26**	—	28
Other liabilities	**116**	50	87
Total liabilities	**8,933**	8,190	9,126
Net assets	**397**	334	386

Assets and liabilities of operations classified as held for sale as at 30 June 2020 relate primarily to FPI and also include Group's operations in Hong Kong and Indonesia. Assets and liabilities of operations classified as held for sale as at 30 June 2019 relate entirely to FPI. Assets and liabilities classified as held for sale at 31 December 2019 relate primarily to FPI and also include the Group's operations in Hong Kong.

B5 – Subsidiaries, joint ventures and associates continued

(c) Assets and liabilities of operations classified as held for sale continued

FPI

On 19 July 2017, Aviva announced the sale of FPI to RL360 Holding Company Limited, a subsidiary of International Financial Group Limited, for a total consideration of £340 million, and FPI has been reported as held for sale by the Group since 31 December 2017. In 2020, a revised structure was agreed for Aviva to sell a 76.2% shareholding in FPI for a total consideration of £259 million, including £50 million of deferred consideration. The conditions defined in IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* for a subsidiary to be classified as held for sale continued to be met at the balance sheet date and the subsidiary was remeasured at fair value less costs to sell of £304 million, based on the revised terms.

The classification as held for sale has resulted in a loss on remeasurement of £118 million in 2017, £13 million in 2018, £28 million in 2019 and an additional remeasurement loss of £19 million at 30 June 2020. The business remained a consolidated subsidiary of Aviva at the balance sheet date. The transaction completed on 16 July 2020.

B6 – Segmental information

The Group's results can be segmented either by activity or by geography. Our primary reporting format is along market reporting lines, with supplementary information provided by products and services. This note provides segmental information on the consolidated income statement.

(a) Operating segments

United Kingdom

The United Kingdom comprises two operating segments – Life and General Insurance. The principal activities of UK Life including Savings & Retirement are life insurance, long-term health and accident insurance, savings, pensions and annuity business. UK General Insurance provides insurance cover to individuals and businesses, for risks associated mainly with motor vehicles, property and liability (such as employers' liability and professional indemnity liability) and medical expenses.

Canada

The principal activity of our operation in Canada is general insurance. In particular it provides personal and commercial lines insurance products principally distributed through insurance brokers.

France

The principal activities of our operations in France are long-term business and general insurance. The long-term business offers a range of long-term insurance and savings products, primarily for individuals, with a focus on the unit-linked market. The general insurance business predominantly sells personal and small commercial lines insurance products through agents and a direct insurer.

Poland

Activities in Poland comprise long-term business and general insurance and includes our long-term business in Lithuania.

Italy, Ireland and Other

These countries are not individually significant at a Group level, so have been aggregated into a single reporting segment in line with IFRS 8 *Operating Segments.* The principal activities of our operations in Italy and Ireland are long-term business and general insurance. Our 'Other' operations include our life operations in Turkey.

Asia

Our activities in Asia principally comprise our long-term business operations in China, India, Singapore, Hong Kong (see note B5(c)), Vietnam, Indonesia (see note B5(c)) and FPI (see note B5(c)). This segment also includes general insurance and health operations in Singapore and health operations in Indonesia. FPI was disposed of on 16 July 2020.

Aviva Investors

Aviva Investors operates in most of the markets in which the Group operates, in particular the UK, France, North America and Asia Pacific. Aviva Investors manages policyholders' and shareholders' invested funds, provides investment management services for institutional pension fund mandates and manages a range of retail investment products. These include investment funds, unit trusts, open-ended investment companies and individual savings accounts.

Other Group activities

Investment return on centrally held assets and head office expenses, such as Group treasury and finance functions, together with certain taxes and financing costs arising on central borrowings are included in 'Other Group activities'. The results of our internal reinsurance operations and the Group's interest in Wealthify are also included in this segment, as are the elimination entries for certain inter-segment transactions and group consolidation adjustments.

B6 – Segmental information continued

Measurement basis

The accounting policies of the segments are the same as those for the Group as a whole. Any transactions between the business segments are subject to normal commercial terms and market conditions. The Group evaluates performance of operating segments on the basis of:

(i) profit or loss from operations before tax attributable to shareholders

(ii) profit or loss from operations before tax attributable to shareholders, adjusted for non-operating items that do not reflect the ongoing performance of our operating segments, including the impact of short-term fluctuations in market performance and fiscal policy changes.

(a) (i) Segmental income statement for the six month period ended 30 June 2020

	United Kingdom			Europe						
	Life £m	GI £m	Canada £m	France £m	Poland £m	Italy, Ireland and Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
Gross written premiums	5,142	2,315	1,580	2,630	297	2,504	761	—	—	15,229
Premiums ceded to reinsurers	(1,519)	(175)	(78)	(39)	(7)	(67)	(120)	—	—	(2,005)
Internal reinsurance revenue	—	—	—	—	—	—	—	—	—	—
Premiums written net of reinsurance	3,623	2,140	1,502	2,591	290	2,437	641	—	—	13,224
Net change in provision for unearned premiums	(38)	(48)	6	(126)	2	9	(4)	—	—	(199)
Net earned premiums	3,585	2,092	1,508	2,465	292	2,446	637	—	—	13,025
Fee and commission income	493	49	13	156	46	62	100	154	1	1,074
	4,078	2,141	1,521	2,621	338	2,508	737	154	1	14,099
Net investment (expense)/income	(725)	49	124	(1,731)	(62)	(600)	(244)	(15)	(435)	(3,639)
Inter-segment revenue	—	—	—	—	—	—	—	103	—	103
Share of (loss)/profit after tax of joint ventures and associates	(26)	—	—	10	—	6	19	—	57	66
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	7	—	—	—	(19)	—	—	(12)
Segmental income[1]	3,327	2,190	1,652	900	276	1,914	493	242	(377)	10,617
Claims and benefits paid, net of recoveries from reinsurers	(4,354)	(1,174)	(874)	(2,649)	(191)	(1,362)	(391)	—	—	(10,995)
Change in insurance liabilities, net of reinsurance	(2,634)	(339)	(70)	14	131	(349)	(271)	—	(2)	(3,520)
Change in investment contract provisions	5,348	—	—	1,576	—	(314)	321	14	—	6,945
Change in unallocated divisible surplus	310	—	—	463	3	538	20	—	—	1,334
Fee and commission expense	(315)	(618)	(449)	(250)	(77)	(191)	(137)	(14)	498	(1,553)
Other expenses	(489)	(228)	(95)	(133)	(41)	(98)	(125)	(208)	(226)	(1,643)
Inter-segment expenses	(91)	(3)	(3)	—	(1)	(5)	—	—	—	(103)
Finance costs	(78)	(2)	(3)	(1)	—	(2)	—	—	(192)	(278)
Segmental expenses	(2,303)	(2,364)	(1,494)	(980)	(176)	(1,783)	(583)	(208)	78	(9,813)
Profit/(loss) before tax	1,024	(174)	158	(80)	100	131	(90)	34	(299)	804
Tax attributable to policyholders' returns	267	—	—	—	—	4	1	—	—	272
Profit/(loss) before tax attributable to shareholders' profits	1,291	(174)	158	(80)	100	135	(89)	34	(299)	1,076
Adjusting items:										
Reclassification of unallocated interest	32	(7)	16	26	—	—	—	1	(68)	—
Life business: Investment variances and economic assumption changes	(634)	—	—	193	2	(13)	147	—	—	(305)
Non-life business: Short-term fluctuation in return on investments	—	84	(72)	72	(3)	24	—	—	66	171
General insurance and health business: Economic assumption changes	—	31	7	7	—	—	—	—	—	45
Impairment of goodwill, joint ventures, associates and other amounts expensed	—	—	16	—	—	—	1	—	—	17
Amortisation and impairment of intangibles acquired in business combinations	25	—	11	1	2	1	4	—	—	44
Amortisation and impairment of acquired value of in-force business	103	—	—	1	—	3	58	—	—	165
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	(7)	—	—	—	19	—	—	12
Other	—	—	—	—	—	—	—	—	—	—
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	817	(66)	129	220	101	150	140	35	(301)	1,225

1 Total reported income, excluding inter-segment revenue, includes £5,598 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts are written.

B6 – Segmental information continued

(a) (ii) Segmental income statement for the six month period ended 30 June 2019 – restated[1]

	United Kingdom Life £m	United Kingdom GI £m	Canada £m	Europe France £m	Europe Poland £m	Europe Italy, Ireland and Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
Gross written premiums	3,509	2,338	1,525	3,407	311	3,377	744	—	—	15,211
Premiums ceded to reinsurers	(814)	(180)	(67)	(40)	(5)	(70)	(266)	—	—	(1,442)
Internal reinsurance revenue	—	—	—	—	—	—	(4)	—	4	—
Premiums written net of reinsurance	2,695	2,158	1,458	3,367	306	3,307	474	—	4	13,769
Net change in provision for unearned premiums	(37)	(74)	(9)	(121)	—	(12)	(20)	—	—	(273)
Net earned premiums	2,658	2,084	1,449	3,246	306	3,295	454	—	4	13,496
Fee and commission income	450	60	10	142	50	30	109	159	1	1,011
	3,108	2,144	1,459	3,388	356	3,325	563	159	5	14,507
Net investment income	19,469	181	128	4,582	67	2,561	353	35	638	28,014
Inter-segment revenue	—	—	—	—	—	—	—	118	—	118
Share of profit/(loss) after tax of joint ventures and associates	33	—	—	4	—	6	32	—	(13)	62
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	6	—	—	—	(19)	—	—	(13)
Segmental income[2]	22,610	2,325	1,593	7,974	423	5,892	929	312	630	42,688
Claims and benefits paid, net of recoveries from reinsurers	(4,844)	(1,329)	(928)	(2,434)	(200)	(1,588)	(480)	—	(21)	(11,824)
Change in insurance liabilities, net of reinsurance	(3,696)	(59)	(36)	(792)	2	(814)	(60)	—	7	(5,448)
Change in investment contract provisions	(11,948)	—	—	(2,018)	1	(2,043)	116	(35)	—	(15,927)
Change in unallocated divisible surplus	311	—	—	(1,994)	(1)	(970)	(184)	—	—	(2,838)
Fee and commission expense	(255)	(624)	(401)	(418)	(77)	(164)	(114)	(15)	(580)	(2,648)
Other expenses[3]	(514)	(187)	(79)	(122)	(51)	(90)	(134)	(204)	(171)	(1,552)
Inter-segment expenses	(104)	(3)	(3)	(2)	(2)	(4)	—	—	—	(118)
Finance costs	(69)	(2)	(4)	(1)	—	(3)	(2)	—	(204)	(285)
Segmental expenses	(21,119)	(2,204)	(1,451)	(7,781)	(328)	(5,676)	(858)	(254)	(969)	(40,640)
Profit/(loss) before tax	1,491	121	142	193	95	216	71	58	(339)	2,048
Tax attributable to policyholders' returns	(519)	—	—	—	—	(6)	—	—	—	(525)
Profit/(loss) before tax attributable to shareholders' profits	972	121	142	193	95	210	71	58	(339)	1,523
Adjusting items:										
Reclassification of unallocated interest[4]	32	(9)	17	24	—	—	—	2	(66)	—
Life business: Investment variances and economic assumption changes	(400)	—	—	86	(2)	(39)	(17)	—	—	(372)
Non-life business: Short-term fluctuation in return on investments	—	(70)	(77)	(71)	(1)	(28)	—	—	102	(145)
General insurance and health business: Economic assumption changes	—	54	3	16	—	—	—	—	—	73
Impairment of goodwill, joint ventures, associates and other amounts expensed	—	—	2	—	—	—	9	—	—	11
Amortisation and impairment of intangibles acquired in business combinations	27	—	8	1	2	1	6	—	—	45
Amortisation and impairment of acquired value of in-force business	121	—	—	1	—	5	63	—	1	191
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	(6)	—	—	—	19	—	—	13
Other[5]	—	45	—	—	—	2	—	—	—	47
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits[4]	752	141	89	250	94	151	151	60	(302)	1,386

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction to the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
2 Total reported income, excluding inter-segment revenue, includes £25,004 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts are written.
3 Following the alignment of the UK digital business with the United Kingdom Life and United Kingdom GI businesses and the change in definition of Group adjusted operating profit on 31 December 2019, comparative amounts for the 6 month period ended 30 June 2019 have been amended to reclassify the amortisation of internally generated intangibles included within Other expenses of £21 million from Other Group activities to United Kingdom Life (£8 million) and United Kingdom GI (£13 million).
4 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the 6 month period ended 30 June 2019 have been amended to reclassify net interest expense from United Kingdom Life to Other Group activities, of £32 million. The change has no impact on the Group's profit before tax attributable to shareholders' profits or Group adjusted operating profit before tax attributable to shareholders' profits.
5 Other includes a charge of £45 million in relation to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims and a charge of £2 million relating to the negative goodwill that arose on acquisition of Friends First.

B6 – Segmental information continued

(a) (iii) Segmental income statement for the year ended 31 December 2019

	United Kingdom			Europe						
	Life £m	GI £m	Canada £m	France £m	Poland £m	Italy, Ireland and Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
Gross written premiums	8,596	4,624	3,204	6,883	643	5,761	1,532	—	—	31,243
Premiums ceded to reinsurers	(2,271)	(406)	(143)	(86)	(12)	(264)	(381)	—	—	(3,563)
Internal reinsurance revenue	—	—	—	—	—	—	1	—	(1)	—
Premiums written net of reinsurance	6,325	4,218	3,061	6,797	631	5,497	1,152	—	(1)	27,680
Net change in provision for unearned premiums	(2)	(57)	(99)	(28)	2	(9)	(16)	—	—	(209)
Net earned premiums	6,323	4,161	2,962	6,769	633	5,488	1,136	—	(1)	27,471
Fee and commission income	951	113	24	305	99	123	205	320	1	2,141
	7,274	4,274	2,986	7,074	732	5,611	1,341	320	—	29,612
Net investment income	27,070	254	171	6,267	155	4,352	967	61	1,280	40,577
Inter-segment revenue	—	—	—	—	—	—	—	247	—	247
Share of profit/(loss) after tax of joint ventures and associates	20	—	—	48	—	12	33	—	(28)	85
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	6	—	—	—	(28)	—	—	(22)
Segmental income[1]	34,364	4,528	3,163	13,389	887	9,975	2,313	628	1,252	70,499
Claims and benefits paid, net of recoveries from reinsurers	(9,569)	(2,614)	(1,938)	(4,751)	(380)	(2,820)	(1,003)	—	(21)	(23,096)
Change in insurance liabilities, net of reinsurance	(3,428)	(53)	(16)	(1,112)	(49)	(1,062)	(32)	—	50	(5,702)
Change in investment contract provisions	(16,411)	—	—	(4,041)	1	(3,365)	(216)	(63)	—	(24,095)
Change in unallocated divisible surplus	162	—	—	(2,010)	(4)	(1,764)	(369)	—	—	(3,985)
Fee and commission expense	(669)	(1,265)	(823)	(816)	(156)	(352)	(257)	(27)	(1,171)	(5,536)
Other expenses	(1,332)	(298)	(162)	(246)	(95)	(230)	(283)	(447)	(236)	(3,329)
Inter-segment expenses	(218)	(6)	(6)	(2)	(5)	(10)	—	—	—	(247)
Finance costs	(159)	(4)	(7)	(1)	(1)	(6)	(8)	—	(390)	(576)
Segmental expenses	(31,624)	(4,240)	(2,952)	(12,979)	(689)	(9,609)	(2,168)	(537)	(1,768)	(66,566)
Profit/(loss) before tax	2,740	288	211	410	198	366	145	91	(516)	3,933
Tax attributable to policyholders' returns	(487)	—	—	—	—	(14)	(58)	—	—	(559)
Profit/(loss) before tax attributable to shareholders' profits	2,253	288	211	410	198	352	87	91	(516)	3,374
Adjusting items:										
Reclassification of unallocated interest[2]	65	(8)	33	46	—	—	—	5	(141)	—
Life business: Investment variances and economic assumption changes	(695)	—	—	84	(4)	(42)	10	—	(7)	(654)
Non-life business: Short-term fluctuation in return on investments	—	(102)	(64)	(95)	(5)	(33)	—	—	132	(167)
General insurance and health business: Economic assumption changes	—	27	2	24	—	—	—	—	1	54
Impairment of goodwill, joint ventures, associates and other amounts expensed	—	—	2	—	—	—	13	—	—	15
Amortisation and impairment of intangibles acquired in business combinations	54	—	13	2	5	2	11	—	—	87
Amortisation and impairment of acquired value of in-force business	243	—	—	2	—	33	126	—	2	406
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	(6)	—	—	—	28	—	—	22
Other[3]	—	45	—	—	—	2	—	—	—	47
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits[2]	1,920	250	191	473	194	314	275	96	(529)	3,184

1 Total reported income, excluding inter-segment revenue, includes £39,041 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts are written.
2 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the year ended 31 December 2019 have been amended to reclassify net interest expense from United Kingdom Life to Other Group activities, of £65 million. The change has no impact on the Group's profit before tax attributable to shareholders' profits or Group adjusted operating profit before tax attributable to shareholders' profits.
3 Other includes a charge of £45 million in relation to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims and a charge of £2 million relating to the negative goodwill that arose on acquisition of Friends First.

(b) Further analysis by products and services

The Group's results can be further analysed by products and services which comprise long-term business, general insurance and health, fund management and other activities.

Long-term business

Our long-term business comprises life insurance, long-term health and accident insurance, savings, pensions and annuity business written by our life insurance subsidiaries, including managed pension fund business. Long-term business also includes our share of the other life and related business written in our associates and joint ventures, as well as lifetime mortgage business written in the UK.

General insurance and health

Our general insurance and health business provides insurance cover to individuals and to small and medium-sized businesses, for risks associated mainly with motor vehicles, property and liability, such as employers' liability and professional indemnity liability, and medical expenses.

B6 – Segmental information continued

Fund management

Our fund management business invests policyholders' and shareholders' funds and provides investment management services for institutional pension fund mandates. It manages a range of retail investment products, including investment funds, unit trusts, open-ended investment companies and individual savings accounts. Clients include Aviva Group businesses and third-party financial institutions, pension funds, public sector organisations, investment professionals and private investors.

Other

'Other' includes service companies, head office expenses, such as Group treasury and finance functions, and certain financing costs and taxes not allocated to business segments and eliminations entries for certain inter-segment transactions and group consolidation adjustments.

(b) (i) Segmental income statement – products and services for the six month period ended 30 June 2020

	Long-term business £m	General insurance and health[1] £m	Fund management £m	Other £m	Total £m
Gross written premiums[2]	9,681	5,548	—	—	15,229
Premiums ceded to reinsurers	(1,673)	(332)	—	—	(2,005)
Premiums written net of reinsurance	8,008	5,216	—	—	13,224
Net change in provision for unearned premiums	—	(199)	—	—	(199)
Net earned premiums	8,008	5,017	—	—	13,025
Fee and commission income	817	59	154	44	1,074
	8,825	5,076	154	44	14,099
Net investment (expense)/income	(3,294)	113	—	(458)	(3,639)
Inter-segment revenue	—	—	105	—	105
Share of profit after tax of joint ventures and associates	8	1	—	57	66
(Loss)/profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	(19)	7	—	—	(12)
Segmental income	5,520	5,197	259	(357)	10,619
Claims and benefits paid, net of recoveries from reinsurers	(8,073)	(2,922)	—	—	(10,995)
Change in insurance liabilities, net of reinsurance	(3,065)	(455)	—	—	(3,520)
Change in investment contract provisions	6,945	—	—	—	6,945
Change in unallocated divisible surplus	1,334	—	—	—	1,334
Fee and commission expense	(663)	(1,352)	(14)	476	(1,553)
Other expenses	(721)	(416)	(210)	(296)	(1,643)
Inter-segment expenses	(99)	(6)	—	—	(105)
Finance costs	(80)	(5)	—	(193)	(278)
Segmental expenses	(4,422)	(5,156)	(224)	(13)	(9,815)
Profit/(loss) before tax	1,098	41	35	(370)	804
Tax attributable to policyholders' returns	272	—	—	—	272
Profit/(loss) before tax attributable to shareholders' profits	1,370	41	35	(370)	1,076
Adjusting items	(51)	170	1	29	149
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	1,319	211	36	(341)	1,225

1 General insurance and health business segment includes gross written premiums of £494 million relating to health business. The remaining business relates to property and liability insurance.
2 Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £37 million relating to property and liability insurance.

B6 – Segmental information continued

(b) (ii) Segmental income statement – products and services for the six month period ended 30 June 2019 – restated[1]

	Long-term business £m	General insurance and health[2] £m	Fund management £m	Other £m	Total £m
Gross written premiums[3]	9,649	5,562	—	—	15,211
Premiums ceded to reinsurers	(1,126)	(316)	—	—	(1,442)
Premiums written net of reinsurance	8,523	5,246	—	—	13,769
Net change in provision for unearned premiums	—	(273)	—	—	(273)
Net earned premiums	8,523	4,973	—	—	13,496
Fee and commission income	687	65	158	101	1,011
	9,210	5,038	158	101	14,507
Net investment income	26,973	427	—	614	28,014
Inter-segment revenue	—	—	120	—	120
Share of profit/(loss) after tax of joint ventures and associates	75	—	—	(13)	62
(Loss)/profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	(19)	6	—	—	(13)
Segmental income	36,239	5,471	278	702	42,690
Claims and benefits paid, net of recoveries from reinsurers	(8,613)	(3,211)	—	—	(11,824)
Change in insurance liabilities, net of reinsurance	(5,325)	(123)	—	—	(5,448)
Change in investment contract provisions	(15,927)	—	—	—	(15,927)
Change in unallocated divisible surplus	(2,838)	—	—	—	(2,838)
Fee and commission expense	(691)	(1,304)	(14)	(639)	(2,648)
Other expenses	(748)	(349)	(207)	(248)	(1,552)
Inter-segment expenses	(112)	(7)	—	(1)	(120)
Finance costs	(72)	(6)	—	(207)	(285)
Segmental expenses	(34,326)	(5,000)	(221)	(1,095)	(40,642)
Profit/(loss) before tax	1,913	471	57	(393)	2,048
Tax attributable to policyholders' returns	(525)	—	—	—	(525)
Profit/(loss) before tax attributable to shareholders' profits	1,388	471	57	(393)	1,523
Adjusting items[4]	(91)	(120)	2	72	(137)
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits[4]	1,297	351	59	(321)	1,386

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the period ended 30 June 2019 have been restated resulting in a reduction to the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profits.
2 General insurance and health business segment includes gross written premiums of £541 million relating to health business. The remaining business relates to property and liability insurance.
3 Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £22 million (restated) relating to property and liability insurance.
4 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the period ended 30 June 2019 have been amended to reclassify net interest expense from Long-term business to Other, of £32 million. The change has no impact on the Group's profit before tax attributable to shareholders' profits or Group adjusted operating profit before tax attributable to shareholders' profits.

B6 – Segmental information continued

(b) (iii) Segmental income statement – products and services for the year ended 31 December 2019

	Long-term business £m	General insurance and health[1] £m	Fund management £m	Other £m	Total £m
Gross written premiums[2]	20,335	10,908	—	—	31,243
Premiums ceded to reinsurers	(2,879)	(684)	—	—	(3,563)
Premiums written net of reinsurance	17,456	10,224	—	—	27,680
Net change in provision for unearned premiums	—	(209)	—	—	(209)
Net earned premiums	17,456	10,015	—	—	27,471
Fee and commission income	1,490	126	319	206	2,141
	18,946	10,141	319	206	29,612
Net investment income/(expense)	38,722	622	(1)	1,234	40,577
Inter-segment revenue	—	—	250	—	250
Share of profit/(loss) after tax of joint ventures and associates	113	—	—	(28)	85
(Loss)/profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	(28)	6	—	—	(22)
Segmental income	57,753	10,769	568	1,412	70,502
Claims and benefits paid, net of recoveries from reinsurers	(16,612)	(6,484)	—	—	(23,096)
Change in insurance liabilities, net of reinsurance	(5,566)	(136)	—	—	(5,702)
Change in investment contract provisions	(24,095)	—	—	—	(24,095)
Change in unallocated divisible surplus	(3,985)	—	—	—	(3,985)
Fee and commission expense	(1,546)	(2,672)	(27)	(1,291)	(5,536)
Other expenses	(1,850)	(649)	(453)	(377)	(3,329)
Inter-segment expenses	(237)	(13)	—	—	(250)
Finance costs	(170)	(10)	—	(396)	(576)
Segmental expenses	(54,061)	(9,964)	(480)	(2,064)	(66,569)
Profit/(loss) before tax	3,692	805	88	(652)	3,933
Tax attributable to policyholders' returns	(559)	—	—	—	(559)
Profit/(loss) before tax attributable to shareholders' profits	3,133	805	88	(652)	3,374
Adjusting items[3]	(68)	(161)	4	35	(190)
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits[3]	3,065	644	92	(617)	3,184

1 General insurance and health business segment includes gross written premiums of £944 million relating to health business. The remaining business relates to property and liability insurance.
2 Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £62 million relating to property and liability insurance.
3 Following a review of the presentation of intercompany loan interest, to achieve consistency in our reporting, comparative amounts for the year ended 31 December 2019 have been amended to reclassify net interest expense from Long-term business to Other, of £65 million. The change has no impact on the Group's profit before tax attributable to shareholders' profits or Group adjusted operating profit before tax attributable to shareholders' profits.

B7 – Tax

This note analyses the tax charge for the period and explains the factors that affect it.

(a) Tax (credited)/charged to the income statement

(i) The total tax (credit)/charge comprises:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Current tax			
For the period	**308**	532	1,062
Prior period adjustments	**(23)**	(54)	(179)
Total current tax	**285**	478	883
Deferred tax			
Origination and reversal of temporary differences	**(353)**	393	402
Changes in tax rates or tax laws	**(11)**	(6)	(6)
Write down/(back) of deferred tax assets	**9**	3	(9)
Total deferred tax	**(355)**	390	387
Total tax (credited)/charged to income statement	**(70)**	868	1,270

(ii) The Group, as a proxy for policyholders in the UK, Ireland and Singapore, is required to record taxes on investment income and gains each year. Accordingly, the tax benefit or expense attributable to UK, Ireland and Singapore insurance policyholder returns is included in the tax credit. The tax credit attributable to policyholders' returns included in the credit above is £272 million *(HY19: £525 million charge; 2019: £559 million charge)*.

(iii) The tax credit above, comprising current and deferred tax, can be analysed as follows:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
UK tax	**(143)**	699	851
Overseas tax	**73**	169	419
	(70)	868	1,270

(b) Tax charged/(credited) to other comprehensive income

(i) The total tax charge/(credit) comprises:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Current tax			
In respect of pensions and other post-retirement obligations	**(19)**	(29)	(49)
In respect of foreign exchange movements	**15**	4	(10)
	(4)	(25)	(59)
Deferred tax			
In respect of pensions and other post-retirement obligations	**219**	49	(56)
In respect of fair value gains on owner-occupied properties	**—**	—	1
In respect of unrealised (losses)/gains on investments	**(2)**	14	5
	217	63	(50)
Total tax charged/(credited) to other comprehensive income	**213**	38	(109)

(ii) The tax charge attributable to policyholders' returns included above is £nil *(HY19: £nil; 2019: £nil)*.

B7 – Tax continued

(c) Tax credited to equity

Tax credited directly to equity in the period in respect of coupon payments on the direct capital instrument and tier 1 notes amounted to £nil million *(HY19: £2 million; 2019: £9 million)*.

(d) Tax reconciliation

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the tax rate of the home country of the Company as follows:

	Shareholder £m	**Policyholder £m**	**6 months 2020 £m**	Shareholder £m	Policyholder £m	6 months 2019 £m	Shareholder £m	Policyholder £m	Full year 2019 £m
Total profit before tax	**1,076**	**(272)**	**804**	1,523	525	2,048	3,374	559	3,933
Tax calculated at standard UK corporation tax rate of 19.00% *(2019: 19.00%)*	**205**	**(52)**	**153**	289	100	389	641	106	747
Reconciling items									
Different basis of tax – policyholders	**—**	**(221)**	**(221)**	—	426	426	—	454	454
Adjustment to tax charge in respect of prior periods	**(19)**	**—**	**(19)**	(3)	—	(3)	5	—	5
Non-assessable income and items not taxed at the full statutory rate	**(80)**	**—**	**(80)**	6	—	6	(51)	—	(51)
Non-taxable profit on sale of subsidiaries and associates	**—**	**—**	**—**	—	—	—	(1)	—	(1)
Disallowable expenses	**17**	**—**	**17**	17	—	17	41	—	41
Different local basis of tax on overseas profits	**22**	**1**	**23**	42	(1)	41	98	(1)	97
Change in future local statutory tax rates	**49**	**—**	**49**	—	—	—	(6)	—	(6)
Movement in deferred tax not recognised	**14**	**—**	**14**	(3)	—	(3)	(4)	—	(4)
Tax effect of profit from joint ventures and associates	**(5)**	**—**	**(5)**	(6)	—	(6)	(8)	—	(8)
Other	**(1)**	**—**	**(1)**	1	—	1	(4)	—	(4)
Total tax charged/(credited) to income statement	**202**	**(272)**	**(70)**	343	525	868	711	559	1,270

The tax credit attributable to policyholders' returns is removed from the Group's total profit before tax in arriving at the Group's profit before tax attributable to shareholders' profits. As the net of tax loss attributable to with-profits and unit-linked policyholders is zero, the Group's pre-tax loss attributable to policyholders is an amount equal and opposite to the tax credit attributable to policyholders included in the total tax credit.

The rate of corporation tax in the UK was due to be reduced from 19% to 17% from 1 April 2020. In addition, the French government has introduced a stepped reduction to the French corporation tax rate from 34.43% to 25.83% from 1 January 2022. These reduced rates were used in the calculation of deferred tax assets and liabilities in the UK and France at 30 June 2019.

During 2019, changes were made in France to alter the reduction in corporation tax rates, delaying the reduction to 32.02% to 1 January 2020 and amending the rate to take effect from 1 January 2021 to 28.41%. These revised rates have been used in the calculation of France's deferred tax assets and liabilities as at 31 December 2019 and 30 June 2020.

During 2020, the reduction in the UK corporation tax rate that was due to take effect was cancelled and as a result, the rate has remained at 19%. This revised rate has been used in the calculation of the UK's deferred tax assets and liabilities as at 30 June 2020 and increased the Group's deferred tax liabilities by £93 million.

B8 – Earnings per share

This note shows how to calculate earnings per share on profit attributable to ordinary shareholders, based both on the present shares in issue (the basic earnings per share) and the potential future shares in issue, including conversion of share options granted to employees (the diluted earnings per share). We have also shown the same calculations based on our Group adjusted operating profit as we believe this gives an important indication of operating performance. Consideration of both these measures gives a full picture of the performance of the business in the period.

(a) Basic earnings per share

(i) The profit attributable to ordinary shareholders is:

	6 months 2020			Restated[1] 6 months 2019			Full year 2019		
	Group adjusted operating profit £m	Adjusting items £m	Total £m	Group adjusted operating profit £m	Adjusting items £m	Total £m	Group adjusted operating profit £m	Adjusting items £m	Total £m
Profit before tax attributable to shareholders' profits	**1,225**	**(149)**	**1,076**	1,386	137	1,523	3,184	190	3,374
Tax attributable to shareholders' profit	**(224)**	**22**	**(202)**	(306)	(37)	(343)	(668)	(43)	(711)
Profit for the period	**1,001**	**(127)**	**874**	1,080	100	1,180	2,516	147	2,663
Amount attributable to non-controlling interests	**(48)**	**(5)**	**(53)**	(47)	(17)	(64)	(98)	(17)	(115)
Cumulative preference dividends for the year	**(9)**	**—**	**(9)**	(9)	—	(9)	(17)	—	(17)
Coupon payments in respect of the direct capital instrument (DCI) and tier 1 notes (net of tax)[2]	**(27)**	**—**	**(27)**	(6)	—	(6)	(34)	—	(34)
Profit attributable to ordinary shareholders	**917**	**(132)**	**785**	1,018	83	1,101	2,367	130	2,497

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
2 On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million DCI at its principal amount together with accrued interest to (but excluding) 27 July 2020. Interest payable up to 23 June 2020 has been recorded as an appropriation of retained profits with the remaining interest payable from 24 June 2020 to 30 June 2020 recorded within profit before tax attributable to shareholders' profits. In prior periods, the interest on the DCI and tier 1 notes was treated as an appropriation of retained profits and accordingly, accounted for when paid.

(ii) Basic earnings per share is calculated as follows:

	6 months 2020			Restated[2] 6 months 2019			Full year 2019		
	Before tax £m	Net of tax, NCI, preference dividends and DCI[1] £m	Per share p	Before tax £m	Net of tax, NCI, preference dividends and DCI[1] £m	Per share p	Before tax £m	Net of tax, NCI, preference dividends and DCI[1] £m	Per share p
Group adjusted operating profit attributable to ordinary shareholders	**1,225**	**917**	**23.4**	1,386	1,018	26.1	3,184	2,367	60.5
Adjusting items:									
Life business: Investment variances and economic assumption changes	**305**	**290**	**7.4**	372	292	7.5	654	535	13.7
Non-life business: Short-term fluctuation in return on investments	**(171)**	**(179)**	**(4.6)**	145	121	3.1	167	129	3.3
General insurance and health business: Economic assumption changes	**(45)**	**(36)**	**(0.9)**	(73)	(58)	(1.4)	(54)	(33)	(0.8)
Impairment of goodwill, joint ventures, associates and other amounts expensed	**(17)**	**(15)**	**(0.4)**	(11)	(11)	(0.3)	(15)	(15)	(0.4)
Amortisation and impairment of intangibles acquired in business combinations[2]	**(44)**	**(34)**	**(0.9)**	(45)	(42)	(1.1)	(87)	(61)	(1.6)
Amortisation and impairment of acquired value of in-force business	**(165)**	**(145)**	**(3.7)**	(191)	(167)	(4.3)	(406)	(356)	(9.1)
Loss on disposal and remeasurement of subsidiaries, joint ventures and associates	**(12)**	**(13)**	**(0.3)**	(13)	(14)	(0.4)	(22)	(23)	(0.6)
Other[3]	**—**	**—**	**—**	(47)	(38)	(1.0)	(47)	(46)	(1.2)
Profit attributable to ordinary shareholders	**1,076**	**785**	**20.0**	1,523	1,101	28.2	3,374	2,497	63.8

1 DCI includes the direct capital instrument and tier 1 notes.
2 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.
3 The first half of 2019 includes a charge of £45 million in relation to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims and a charge of £2 million relating to negative goodwill which arose on the acquisition of Friends First.

(iii) The calculation of basic earnings per share uses a weighted average of 3,923 million *(HY19: 3,907 million, 2019: 3,911 million)* ordinary shares in issue, after deducting treasury shares. The actual number of shares in issue at 30 June 2020 was 3,928 million *(HY19: 3,917 million, 2019: 3,921 million)* or 3,927 million *(HY19: 3,913 million, 2019: 3,919 million)* excluding treasury shares.

B8 – Earnings per share continued

(b) Diluted earnings per share

(i) Diluted earnings per share is calculated as follows:

	6 months 2020 Total £m	6 months 2020 Weighted average number of shares million	6 months 2020 Per share p	6 months 2019 Total £m	6 months 2019 Weighted average number of shares million	6 months 2019 Per share p	Full year 2019 Total £m	Full year 2019 Weighted average number of shares million	Full year 2019 Per share p
Profit attributable to ordinary shareholders	**785**	**3,923**	**20.0**	1,101	3,907	28.2	2,497	3,911	63.8
Dilutive effect of share awards and options	**—**	**58**	**(0.3)**	—	43	(0.3)	—	45	(0.7)
Diluted earnings per share	**785**	**3,981**	**19.7**	1,101	3,950	27.9	2,497	3,956	63.1

(ii) Diluted earnings per share on Group adjusted operating profit attributable to ordinary shareholders is calculated as follows:

	6 months 2020 Total £m	6 months 2020 Weighted average number of shares million	6 months 2020 Per share p	Restated[1] 6 months 2019 Total £m	Restated[1] 6 months 2019 Weighted average number of shares million	Restated[1] 6 months 2019 Per share p	Full year 2019 Total £m	Full year 2019 Weighted average number of shares million	Full year 2019 Per share p
Group adjusted operating profit attributable to ordinary shareholders	**917**	**3,923**	**23.4**	1,018	3,907	26.1	2,367	3,911	60.5
Dilutive effect of share awards and options	**—**	**58**	**(0.4)**	—	43	(0.3)	—	45	(0.7)
Diluted group adjusted operating profit per share	**917**	**3,981**	**23.0**	1,018	3,950	25.8	2,367	3,956	59.8

1 On 31 December 2019 the Group adjusted operating profit APM was revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million and a reduction in the prior period operating earnings per share of 1.2 pence. There is no impact on profit before tax attributable to shareholders' profit.

B9 – Dividends and appropriations

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Ordinary dividends declared and charged to equity in the period			
Final 2019 – 21.40 pence per share, withdrawn on 8 April 2020	**—**	—	—
Final 2018 – 20.75 pence per share, paid on 30 May 2019	**—**	812	812
Interim 2019 – 9.50 pence per share, paid on 26 September 2019	**—**	—	372
	—	812	1,184
Preference dividends declared and charged to equity in the period	**9**	9	17
Coupon payments on DCI and tier 1 notes	**27**	7	43
	36	828	1,244

Subsequent to 31 December 2019, the directors agreed a final dividend for 2019 of 21.40 pence per ordinary share, amounting to £839 million. On 8 April 2020 the Group announced that the Board of Directors had agreed to withdraw this recommendation.

Subsequent to 30 June 2020, the directors declared a second interim dividend in respect of 2019 of 6.00 pence per ordinary share, amounting to £250 million recognising the strong capital and centre liquidity position, enhanced by receipt of proceeds from the sale of FPI. The dividend will be paid on 24 September 2020 and will be accounted for as an appropriation of retained earnings in the year ending 31 December 2020.

On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million DCI at their principal amount together with accrued interest to (but excluding) 27 July 2020. Interest payable up to 23 June 2020 has been recorded as an appropriation of retained profits with the remaining interest payable from 24 June 2020 to 30 June 2020 recorded within profit before tax attributable to shareholders' profit. In prior periods, the interest on the DCI and tier 1 notes was treated as an appropriation of retained profits and, accordingly, accounted for when paid.

B10 – Contract liabilities and associated reinsurance

The Group's liabilities for insurance and investment contracts it has sold, and the associated reinsurance, is covered in the following notes:

- Note B11 covers insurance liabilities
- Note B12 covers liabilities for investment contracts
- Note B13 details the associated reinsurance assets on these liabilities
- Note B14 shows the effects of changes in the assumptions on the liabilities

(a) Carrying amount

The following is a summary of the contract liabilities and related reinsurance assets as at 30 June/31 December:

	30 June 2020			30 June 2019			31 December 2019		
	Gross provisions £m	**Reinsurance assets £m**	**Net £m**	Gross provisions £m	Reinsurance assets £m	Net £m	Gross provisions £m	Reinsurance assets £m	Net £m
Long-term business									
Insurance liabilities	**(137,662)**	**7,930**	**(129,732)**	(131,347)	6,202	(125,145)	(131,182)	6,369	(124,813)
Liabilities for participating investment contracts	**(95,486)**	**—**	**(95,486)**	(94,575)	1	(94,574)	(92,762)	1	(92,761)
Liabilities for non-participating investment contracts	**(134,749)**	**3,021**	**(131,728)**	(132,328)	4,285	(128,043)	(137,689)	4,006	(133,683)
	(367,897)	**10,951**	**(356,946)**	(358,250)	10,488	(347,762)	(361,633)	10,376	(351,257)
Outstanding claims provisions	**(2,586)**	**111**	**(2,475)**	(2,160)	81	(2,079)	(2,187)	93	(2,094)
	(370,483)	**11,062**	**(359,421)**	(360,410)	10,569	(349,841)	(363,820)	10,469	(353,351)
General insurance and health									
Outstanding claims provisions	**(8,893)**	**690**	**(8,203)**	(9,130)	724	(8,406)	(8,831)	683	(8,148)
Provisions for claims incurred but not reported	**(3,653)**	**1,306**	**(2,347)**	(2,554)	891	(1,663)	(2,672)	1,004	(1,668)
	(12,546)	**1,996**	**(10,550)**	(11,684)	1,615	(10,069)	(11,503)	1,687	(9,816)
Provision for unearned premiums	**(5,464)**	**293**	**(5,171)**	(5,324)	283	(5,041)	(5,138)	275	(4,863)
Provision arising from liability adequacy tests[1]	**(8)**	**—**	**(8)**	(16)	—	(16)	(15)	—	(15)
	(18,018)	**2,289**	**(15,729)**	(17,024)	1,898	(15,126)	(16,656)	1,962	(14,694)
Total	**(388,501)**	**13,351**	**(375,150)**	(377,434)	12,467	(364,967)	(380,476)	12,431	(368,045)
Less: Liabilities classified as held for sale	**8,791**	**(44)**	**8,747**	8,140	(53)	8,087	9,011	(75)	8,936
	(379,710)	**13,307**	**(366,403)**	(369,294)	12,414	(356,880)	(371,465)	12,356	(359,109)

1 Provision arising from liability adequacy tests relates to general insurance business only. Additional liabilities arising from the liability adequacy test for life operations, where applicable, are included in unallocated divisible surplus. At 30 June 2020 this liability is £224 million *(HY19: £79 million, 2019: £nil)* for life operations.

B10 – Contract liabilities and associated reinsurance continued

(b) Change in contract liabilities, net of reinsurance, recognised as an expense

The purpose of the following table is to reconcile the change in insurance liabilities, net of reinsurance, shown on the consolidated income statement, to the change in insurance liabilities recognised as an expense in the relevant movement tables in the following notes.

6 months 2020	Gross £m	Reinsurance £m	Net £m
Long-term business			
Change in insurance liabilities (note B11(b))	**4,178**	**(1,447)**	**2,731**
Change in provision for outstanding claims	**342**	**(8)**	**334**
	4,520	**(1,455)**	**3,065**
General insurance and health			
Change in insurance liabilities (note B11(c) and B13(c))	**743**	**(280)**	**463**
Change in provision arising from liability adequacy tests	**(7)**	**—**	**(7)**
Less: Unwind of discount	**(5)**	**4**	**(1)**
	731	**(276)**	**455**
Total change in insurance liabilities	**5,251**	**(1,731)**	**3,520**

6 months 2019	Gross £m	Reinsurance £m	Net £m
Long-term business			
Change in insurance liabilities (note B11(b))	5,517	(362)	5,155
Change in provision for outstanding claims	162	8	170
	5,679	(354)	5,325
General insurance and health			
Change in insurance liabilities (note B11(c) and B13(c))[1]	123	2	125
Change in provision arising from liability adequacy tests	—	—	—
Less: Unwind of discount	(7)	5	(2)
	116	7	123
Total change in insurance liabilities	5,795	(347)	5,448

1 Includes £45 million in the UK General Insurance and Health business relating to a change in the discount rate used for estimating lump sum payments of bodily injury claims from 0.00% to -0.25%.

Full year 2019	Gross £m	Reinsurance £m	Net £m
Long-term business			
Change in insurance liabilities (note B11(b))	6,600	(1,030)	5,570
Change in provision for outstanding claims	4	(8)	(4)
	6,604	(1,038)	5,566
General insurance and health			
Change in insurance liabilities (note B11(c) and B13(c))[1]	234	(94)	140
Change in provision arising from liability adequacy tests	—	—	—
Less: Unwind of discount	(14)	10	(4)
	220	(84)	136
Total change in insurance liabilities	6,824	(1,122)	5,702

1 Includes £45 million in the UK General Insurance and Health business relating to a change in the discount rate used for estimating lump sum payments of bodily injury claims from 0.00% to -0.25%.

For non-participating investment contracts, deposits collected and amounts withdrawn are not shown on the income statement, but are accounted for directly through the statement of financial position as an adjustment to the gross liabilities for investment contracts. The associated change in the investment contract provisions shown on the income statement consists of the attributed investment return. For participating investment contracts, the change in the investment contract provisions on the income statement primarily consists of the movement in participating investment contract liabilities (net of reinsurance) over the reporting period.

B11 – Insurance liabilities

(a) Carrying amount

Insurance liabilities (gross of reinsurance) as at 30 June/31 December comprised:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Long-term business			
Participating insurance liabilities	**49,687**	48,204	47,344
Unit-linked non-participating insurance liabilities	**14,505**	15,147	14,707
Other non-participating insurance liabilities[1]	**73,470**	67,996	69,131
	137,662	131,347	131,182
Outstanding claims provisions	**2,586**	2,160	2,187
	140,248	133,507	133,369
General insurance and health			
Outstanding claims provisions	**8,893**	9,130	8,831
Provision for claims incurred but not reported	**3,653**	2,554	2,672
	12,546	11,684	11,503
Provision for unearned premiums	**5,464**	5,324	5,138
Provision arising from liability adequacy tests[1]	**8**	16	15
	18,018	17,024	16,656
Total	**158,266**	150,531	150,025
Less: Liabilities classified as held for sale	**(668)**	(118)	(687)
	157,598	150,413	149,338

1 Provision arising from liability adequacy tests relates to general insurance business only. Additional liabilities arising from the liability adequacy test for life operations, where applicable, are included in unallocated divisible surplus. At 30 June 2020 this liability is £224 million *(HY19: £79 million, 2019: £nil)* for life operations.

(b) Movement in long-term business liabilities

The following movements have occurred in the gross long-term business liabilities during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**131,182**	125,829	125,829
Liabilities in respect of new business	**4,288**	2,816	6,988
Expected change in existing business	**(3,729)**	(3,628)	(6,452)
Variance between actual and expected experience	**(717)**	2,945	3,212
Impact of operating assumption changes	**165**	—	(961)
Impact of economic assumption changes	**4,084**	3,009	3,766
Other movements recognised as an expense[1]	**87**	375	47
Change in liability recognised as an expense (note B10(b))	**4,178**	5,517	6,600
Foreign exchange rate movements	**2,192**	2	(1,775)
Other movements[2]	**110**	(1)	528
Carrying amount at 30 June/31 December	**137,662**	131,347	131,182

1 Other movements recognised as an expense in the period to 30 June 2020 relate mainly to a special bonus distribution to with-profits policyholders and model changes in UK Life. The movement in 2019 relates to: a special bonus distribution to with-profits policyholders and model changes in UK Life; the reclassification of health liabilities in Singapore; and methodology changes in Ireland.
2 Other movements include the reclassification in the UK from participating investment contracts to insurance contracts of £97 million in the period to 30 June 2020 *(2019: £972 million)*. Full year 2019 also included £(427) million of negative reinsurance assets in the UK which were reclassified from insurance liabilities to reinsurance assets following a review of the presentation of negative reinsurance assets.

For many types of long-term business, including unit-linked and participating funds, movement in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit.

The variance between actual and expected experience of £(0.7) billion in the period to 30 June 2020 is primarily the result of lower than expected equity returns in the UK and France. Economic assumption changes of £4.1 billion, are driven by a reduction in valuation interest rates in response to decreasing interest rates, offset partially by widening credit spreads, primarily in respect of annuity and participating insurance contracts in the UK.

For participating insurance liabilities, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact on profit. Where assumption changes impact profit, these are included in the effect of changes in assumptions and estimates during the period (see note B14), together with the impact of movements in related non-financial assets.

B11 – Insurance liabilities continued

(c) Movements in general insurance and health liabilities

The following changes have occurred in the general insurance and health claims liabilities during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**11,503**	11,406	11,406
Impact of changes in assumptions	**135**	115	126
Claim losses and expenses incurred in the current year	**3,779**	3,408	7,045
Decrease in estimated claim losses and expenses incurred in prior periods	**(56)**	(58)	(186)
Incurred claims losses and expenses	**3,858**	3,465	6,985
Less:			
Payments made on claims incurred in the current year	**(1,245)**	(1,440)	(3,834)
Payments made on claims incurred in prior periods	**(2,049)**	(2,097)	(3,327)
Recoveries on claim payments	**174**	188	396
Claims payments made in the period, net of recoveries	**(3,120)**	(3,349)	(6,765)
Unwind of discounting	**5**	7	14
Changes in claims reserve recognised as an expense (note B10(b))	**743**	123	234
Foreign exchange rate movements	**300**	153	(138)
Other movements	**—**	2	1
Carrying amount at 30 June/31 December	**12,546**	11,684	11,503

The impact of COVID-19 on incurred claims losses is estimated as £441 million (£165 million net of reinsurance) after allowing for an estimated £216 million of offsetting favourable impacts in other product lines as a result of reduced economic activity. Claims are primarily as a result of disruption to business and travel insured by the Group; partially offset by a reduction in frequency of motor claims. Further information on the impact of COVID-19 on general insurance and health liabilities can be found within note B20.

Since the ultimate cost of claims is not known in advance, there are uncertainties involved in estimating the loss reserves including those relating to the COVID-19 pandemic. These uncertainties are allowed for in the reserving process and by the estimation of explicit reserve uncertainty distributions. The reserve estimation basis requires all non-life businesses to calculate booked claims provisions as the best estimate of the cost of future claims payments, plus an explicit allowance for risk and uncertainty. The allowance for risk and uncertainty is calculated by each business unit in accordance with the requirements of the Group non-life reserving policy, taking into account the risks and uncertainties specific to each line of business and type of claim in that territory. The requirements of the Group non-life reserving policy also seek to ensure that the allowance for risk and uncertainty is set consistently across both business units and reporting periods.

B12 – Liability for investment contracts

This note analyses our gross liabilities for investment contracts by type of product and describes the calculation of these liabilities.

(a) Carrying amount

The liability for investment contracts (gross of reinsurance) as at 30 June/31 December comprised:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Long-term business			
Liabilities for participating investment contracts	**95,486**	94,575	92,762
Liabilities for non-participating investment contracts	**134,749**	132,328	137,689
Total	**230,235**	226,903	230,451
Less: Liabilities classified as held for sale	**(8,123)**	(8,022)	(8,324)
	222,112	218,881	222,127

Of the non-participating investment contracts measured at fair value, £134,016 million at 30 June 2020 *(HY19: £131,332 million, 2019: £137,040 million)* are unit-linked in structure and the fair value liability is equal to the current fund value, including any unfunded units, plus if required additional non-unit reserves based on a discounted cash flow analysis.

(b) Movements in participating investment contracts

The following movements have occurred in the gross provisions for participating investment contracts during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**92,762**	90,455	90,455
Liabilities in respect of new business	**2,404**	3,795	6,991
Expected change in existing business	**(2,867)**	(2,660)	(4,857)
Variance between actual and expected experience	**(2,282)**	2,833	4,751
Impact of operating assumption changes	**—**	—	173
Impact of economic assumption changes	**447**	139	204
Other movements recognised as an expense[1]	**(4)**	161	103
Change in liability recognised as an expense[2]	**(2,302)**	4,268	7,365
Foreign exchange rate movements	**5,124**	(148)	(4,054)
Other movements[3]	**(98)**	—	(1,004)
Carrying amount at 30 June/31 December	**95,486**	94,575	92,762

1 The movement in 2019 relates primarily to a special bonus distribution to with-profits policyholders and the recognition of unitised with-profits annual management charges in UK Life.
2 Total interest expense for participating investment contracts recognised in profit or loss is £(1,933) million *(HY19: £3,341 million, 2019: £5,269 million)*.
3 Other movements include the reclassification in the UK from participating investment contracts to insurance contracts of £(97) million in the period to 30 June 2020 *(2019: £(972) million)*. Full year 2019 also included a reclassification in the UK from participating investment contracts to outstanding claims reserves of £(32) million.

The variance between actual and expected experience of £(2.3) billion in the period to 30 June 2020 is primarily the result of adverse equity returns in the UK and France.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of participating investment contract liabilities. For participating business, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact profit. Where assumption changes do impact profit, these are included in the effect of changes in assumptions and estimates during the year (see note B14), together with the impact of movements in related non-financial assets.

(c) Movements in non-participating investment contracts

The following movements have occurred in the gross provisions for non-participating investment contracts during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**137,689**	120,354	120,354
Liabilities in respect of new business	**1,760**	2,552	5,520
Expected change in existing business	**(3,223)**	(2,110)	(3,742)
Variance between actual and expected experience	**(2,294)**	11,545	16,345
Impact of operating assumption changes	**—**	—	(22)
Impact of economic assumption changes	**—**	—	(1)
Other movements recognised as an expense[1]	**63**	2	2
Change in liability	**(3,694)**	11,989	18,102
Foreign exchange rate movements	**734**	(15)	(575)
Other movements[2]	**20**	—	(192)
Carrying amount at 30 June/ 31 December	**134,749**	132,328	137,689

1 Other movements recognised as an expense include the recognition of a £70 million liability in the period to 30 June 2020 following a review of legacy unclaimed assets in the UK.
2 Other movements during the period to 30 June 2020 primarily relate to a reclassification from outstanding claims reserves to non-participating investment contracts in Ireland. Other movements during 2019 mainly relate to a reclassification from non-participating investment contracts to outstanding claims reserves in the UK (£(180) million).

For unit-linked investment contracts, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. The variance between actual and expected experience of £(2.3) billion in the period to 30 June 2020 is primarily the result of the impact of negative global equity performance.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of the non-participating investment contract liabilities. The impacts of assumption changes on profit are included in the effect of changes in assumptions and estimates during the year as set out in note B14, which combines participating and non-participating investment contracts together with the impact of movements in related non-financial assets.

B13 – Reinsurance assets

This note details the reinsurance assets on our insurance and investment contract liabilities.

(a) Carrying amount

The reinsurance assets as at 30 June/31 December comprised:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Long-term business			
Insurance contracts	**7,930**	6,202	6,369
Participating investment contracts	**—**	1	1
Non-participating investment contracts[1]	**3,021**	4,285	4,006
	10,951	10,488	10,376
Outstanding claims provisions	**111**	81	93
	11,062	10,569	10,469
General insurance and health			
Outstanding claims provisions	**690**	724	683
Provisions for claims incurred but not reported	**1,306**	891	1,004
	1,996	1,615	1,687
Provisions for unearned premiums	**293**	283	275
	2,289	1,898	1,962
	13,351	12,467	12,431
Less: Assets classified as held for sale	**(44)**	(53)	(75)
Total	**13,307**	12,414	12,356

1 Balances in respect of all reinsurance treaties are included under reinsurance assets, regardless of whether they transfer significant insurance risk. The reinsurance assets classified as non-participating investment contracts are financial instruments measured at fair value through profit or loss.

(b) Movements in long-term business liabilities

The following movements have occurred in the reinsurance assets on our long-term business insurance and investment contracts liabilities during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**10,376**	9,846	9,846
Assets in respect of new business	**865**	555	954
Expected change in existing business assets	**(155)**	22	(185)
Variance between actual and expected experience	**(192)**	(32)	274
Impact of non-economic assumption changes	**140**	—	(175)
Impact of economic assumption changes	**535**	131	193
Other movements recognised as an expense[1]	**(733)**	(38)	(37)
Change in assets[2]	**460**	638	1,024
Foreign exchange rate movements	**103**	4	(73)
Other movements[3]	**12**	—	(421)
Carrying amount at 30 June/31 December	**10,951**	10,488	10,376

1 Other movements recognised as an expense in the period to 30 June 2020 primarily relate to the reclassification of collective investments in unit-linked funds in the UK following a restructure of a reinsurance treaty. The movement in 2019 primarily relates to the ceding of reinsurance for annuity business offset by basis methodology changes in Ireland, the reclassification of health reinsurance assets in Singapore and collective investments in unit-linked funds in the UK following a restructure of a reinsurance treaty.
2 Change in assets does not reconcile with values in note B10(b) due to the inclusion of reinsurance assets classified as non-participating investment contracts where, for such contracts, deposit accounting is applied on the income statement.
3 Other movements in 2019 included £(427) million of negative reinsurance assets in the UK which were reclassified from insurance liabilities to reinsurance assets following a review of the presentation of negative reinsurance assets.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of reinsurance assets, with corresponding movements in gross insurance contract liabilities. For participating businesses, a movement in reinsurance assets is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact profit. Where assumption changes impact profit, these are included in the effect of changes in assumptions and estimates during the period (see note B14), together with the impact of movements in related liabilities and other non-financial assets.

B13 – Reinsurance assets continued

(c) Movements in general insurance and health claims liabilities

The following movements have occurred in the reinsurance assets on our general insurance and health claims liabilities during the period:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**1,687**	1,611	1,611
Impact of changes in assumptions	**90**	41	73
Reinsurers' share of claim losses and expenses			
Incurred in current year	**406**	89	195
Incurred in prior years	**(22)**	(2)	96
Reinsurers' share of incurred claim losses and expenses	**384**	87	291
Less:			
Reinsurance recoveries received on claims			
Incurred in current year	**(91)**	(6)	(53)
Incurred in prior years	**(107)**	(129)	(227)
Reinsurance recoveries received in the year	**(198)**	(135)	(280)
Unwind of discounting	**4**	5	10
Change in reinsurance asset recognised as income (note B10(b))	**280**	(2)	94
Foreign exchange rate movements	**29**	6	(15)
Other movements	**—**	—	(3)
Carrying amount at 30 June/31 December	**1,996**	1,615	1,687

The impact of COVID-19 on reinsurers' share of incurred claim losses is estimated as £276 million. For further details see note B11(c).

B14 – Effect of changes in assumptions and estimates during the period

This note analyses the impact of changes in estimates and assumptions over the period, on liabilities for insurance and investment contracts, and related assets and liabilities, such as unallocated divisible surplus, reinsurance, deferred acquisition costs and acquired value of in-force business, and does not allow for offsetting movements in the value of backing financial assets.

	Effect on profit 6 months 2020 £m	Effect on profit 6 months 2019 £m	Effect on profit Full year 2019 £m
Assumptions			
Long-term insurance business			
Interest rates	**(2,184)**	(2,504)	(2,978)
Expenses	**—**	—	(47)
Persistency rates	**—**	—	(124)
Mortality and morbidity for assurance contracts	**—**	—	(38)
Mortality for annuity contracts	**—**	—	830
Tax and other assumptions	**(25)**	—	9
General insurance and health business			
Change in discount rate assumptions	**(45)**	(73)	(54)
Total	**(2,254)**	(2,577)	(2,402)

The impact of interest rates on long-term insurance business relates primarily to annuities in the UK (including any change in credit default and reinvestment risk provisions), where a reduction in the valuation interest rate, in response to decreasing interest rates, partially offset by the widening of credit spreads, has increased liabilities. The changes to default assumptions also reflect the consequential impact of changes to the future property growth rate assumptions on UK commercial and residential property and tenant default assumptions on commercial mortgages.

The impact of other assumptions relates to the UK and is to cover the estimated impact of COVID-19 related claims for our individual and group protection businesses, net of expected favourable experience for our annuity book.

In the general insurance and health business, an impact of £(45) million *(HY19: £(73) million, 2019 £(54) million)* has arisen primarily as a result of a decrease in the interest rates used to discount claim reserves for both periodic payment orders (PPOs) and latent claims, partly offset by a decrease in the estimated future inflation rate used to value PPOs.

B15 – Unallocated divisible surplus

An unallocated divisible surplus (UDS) is established where the nature of policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain at the reporting date. Therefore, the expected duration for settlement of the UDS is undefined.

This note shows the movements in the UDS during the period.

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Carrying amount at 1 January	**9,597**	5,949	5,949
Change in participating fund assets	**47**	8,954	9,411
Change in participating fund liabilities	**(1,605)**	(6,195)	(5,426)
Other movements[1]	**224**	79	—
Change in liability recognised as an expense	**(1,334)**	2,838	3,985
Foreign exchange rate movements	**485**	54	(337)
Carrying amount at 30 June/ 31 December	**8,748**	8,841	9,597

1 Other movements relate to additional liabilities arising from the liability adequacy test for France of £224 million *(HY19: £79 million, 2019: £nil)*.

The amount of UDS at 30 June 2020 has fallen to £8.7 billion *(HY19: £8.8 billion, 2019: £9.6 billion)*. The decrease is mainly due to market movements in Europe as a result of widening credit spreads and falling equity returns offset partially by decreasing interest rates.

Where the aggregate amount of participating assets is less than the participating liabilities within a fund then the shortfall may be held as negative UDS, subject to recoverability testing as part of the liability adequacy requirements of IFRS 4. There are no material negative UDS balances at the participating fund-level within each life entity in the current period (*HY19: £nil, 2019: no material negative UDS)*.

B16 – Borrowings

Our borrowings are classified as either core structural borrowings, which are included within the Group's capital employed, or operational borrowings drawn by operating subsidiaries. This note shows the carrying values of each type.

(a) Analysis of total borrowings

Total borrowings comprise:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Core structural borrowings, at amortised cost	**8,822**	7,694	7,496
Operational borrowings, at amortised cost	**371**	313	338
Operational borrowings, at fair value	**1,189**	1,227	1,233
	1,560	1,540	1,571
	10,382	9,234	9,067
Less: Liabilities classified as held for sale	**(26)**	—	(28)
	10,356	9,234	9,039

(b) Core structural borrowings

The carrying amounts of these borrowings are:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Subordinated debt			
6.125% £700 million subordinated notes 2036	**695**	694	695
6.125% £800 million undated subordinated notes	**798**	797	797
6.875% £600 million subordinated notes 2058	**595**	594	594
12.000% £162 million subordinated notes 2021	**173**	185	179
8.250% £500 million subordinated notes 2022	**536**	555	545
6.625% £450 million subordinated notes 2041	**449**	449	449
6.125% €650 million subordinated notes 2043	**589**	580	549
3.875% €700 million subordinated notes 2044	**634**	623	591
5.125% £400 million subordinated notes 2050	**395**	395	395
3.375% €900 million subordinated notes 2045	**811**	797	756
4.500% C$450 million subordinated notes 2021	**267**	270	261
4.375% £400 million subordinated notes 2049	**395**	394	395
4.000% £500 million subordinated notes 2055	**492**	—	—
5.9021% £500 million direct capital instrument[1]	**499**	—	—
	7,328	6,333	6,206
Senior notes			
0.625% €500 million senior notes 2023	**453**	445	422
1.875% €750 million senior notes 2027	**676**	665	630
	1,129	1,110	1,052
Commercial paper	**365**	251	238
Total	**8,822**	7,694	7,496

1 On 23 June 2020 notification was given that the Group would redeem the 5.9021% £500 million direct capital instrument (DCI). At that date, the instrument was reclassified as a financial liability of £499 million, representing its fair value at that date. The difference of £1 million between the carrying amount of £500 million and fair value of £499 million has been charged to retained earnings. The DCI was redeemed in full on 27 July 2020 at a cost of £500 million.

B16 – Borrowings continued

(c) Operational borrowings

The carrying amounts of these borrowings are:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Amounts owed to financial institutions			
Loans	**371**	313	338
Securitised mortgage loan notes			
UK lifetime mortgage business[1]	**1,189**	1,227	1,233
Total	**1,560**	1,540	1,571

1 The fair value of these loan notes is calculated using similar techniques to the related securitised mortgage assets discussed in note C5.

B17 – Pension obligations and other provisions

(a) Carrying amounts

(i) Provisions in the condensed consolidated statement of financial position

In the condensed consolidated statement of financial position, provisions include pension scheme deficits and comprise:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Total IAS 19 obligations to main staff pension schemes	**605**	692	770
Deficits in other staff pension schemes	**72**	66	66
Total IAS 19 obligations to staff pension schemes	**677**	758	836
Restructuring provisions	**33**	60	29
Other provisions	**696**	520	700
Total Provisions	**1,406**	1,338	1,565
Less: Liabilities classified as held for sale	**(1)**	—	—
Total	**1,405**	1,338	1,565

Other provisions shown above primarily include amounts set aside throughout the Group relating to product governance rectification and staff entitlements.

(ii) Pension obligations

The Group operates a number of defined benefit and defined contribution pension schemes. The material defined benefit schemes are in the UK, Ireland and Canada. The assets and liabilities of these schemes as at 30 June/31 December are shown below.

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Total fair value of scheme assets	**20,383**	19,472	18,768
Present value of defined benefit obligation	**(17,581)**	(16,696)	(16,792)
Net IAS 19 surplus in the schemes	**2,802**	2,776	1,976
Surpluses included in other assets[1]	**3,407**	3,468	2,746
Deficits included in provisions	**(605)**	(692)	(770)
Net IAS 19 surplus in the schemes	**2,802**	2,776	1,976

1 Pension surpluses and other assets on the consolidated statement of financial position totalling £3,467 million *(HY19: £3,522 million, 2019: £2,799 million)* includes pension surpluses of £3,407 million *(HY19: £3,468 million, 2019: £2,746 million)* and other assets of £60 million *(HY19: £54 million, 2019: £53 million)*.

B17 – Pension obligations and other provisions continued

(b) Movements in the schemes' surpluses and deficits

Movements in the pension schemes' surpluses and deficits since 31 December comprise:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Net IAS 19 surplus in the schemes at 1 January	**1,976**	2,563	2,563
Administrative expenses	**(8)**	(9)	(19)
Total pension cost charged to net operating expenses	**(8)**	(9)	(19)
Net interest credited to investment income/(finance costs)[1]	**20**	34	73
Total recognised in income statement	**12**	25	54
Remeasurements:			
Actual return on these assets	**1,758**	1,575	1,141
Less: Interest income on scheme assets	**(176)**	(240)	(479)
Return on scheme assets excluding amounts in interest income	**1,582**	1,335	662
Losses from change in financial assumptions	**(850)**	(1,277)	(1,824)
(Losses)/gains from change in demographic assumptions	**(21)**	(10)	165
Experience gains	**2**	22	130
Total remeasurements recognised in other comprehensive income[2]	**713**	70	(867)
Employer contributions	**116**	119	215
Foreign exchange rate movements	**(15)**	(1)	11
Net IAS 19 surplus in the schemes at 30 June/31 December	**2,802**	2,776	1,976

1 Net interest income of £28 million *(HY19: £46 million, 2019: £96 million)* has been credited to investment income and net interest expense of £8 million *(HY19: £12 million, 2019: £23 million)* has been charged to finance costs in HY20.
2 Net remeasurements of pension schemes recorded in the consolidated statement of comprehensive income of £711 million gain *(HY19: £70 million gain, 2019: £867 million loss)* includes £713 million of remeasurement gains *(HY19: £70 million gain, 2019: £867 million loss)* on the main pension schemes and £2 million losses in relation to other schemes *(HY19: £nil, 2019: £nil)*.

Under the IAS 19 valuation basis, the Group applies the principles of IFRIC 14, IAS 19 *The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction*, whereby a surplus is only recognised to the extent that the Company is able to access the surplus either through an unconditional right of refund to the surplus or through reduced future contributions relating to ongoing service, which have been substantively enacted or contractually agreed. The Group has determined that it can derive economic benefit from the surplus in the Aviva Staff Pension Scheme (ASPS) via a reduction to future employer contributions for defined contribution members, which could theoretically be paid from the surplus funds in the ASPS. In the RAC 2003 Pension Scheme (RAC) and Friends Provident Pension Scheme (FPPS), the Group has determined that the rules set out in the schemes' governing documentation provide for an unconditional right to a refund from any future surplus funds in the schemes.

The increase in the surplus in the period to 30 June 2020 is primarily due to employer contributions into the schemes and remeasurements recognised in other comprehensive income. The remeasurements recognised are principally a result of falling interest rates and widening corporate spreads over the period; as well as an update to the classification of the corporate bond portfolio used to derive the discount rate which reduces the liabilities under IAS 19. This updated classification is recognised as an actuarial gain on change in financial assumptions within other comprehensive income. This has been partly offset by adverse equity and property performance.

For the period ended 31 December 2019, the ASPS completed a bulk annuity buy-in transaction with Aviva Life & Pensions UK Limited, a Group Company. Due to different measurement bases applying for accounting purposes, the premium paid by the scheme exceeded the valuation of the plan asset recognised. This was the primary reason for the reduction in the surplus in 2019 and was recognised as an actuarial loss in the actual return on assets within other comprehensive income. The plan asset recognised is transferable and so has not been subject to consolidation within the Group's financial statements.

B18 – Related party transactions

During the period, there have been no changes in the nature of the related party transactions from those described in the Group's annual report and accounts for the year ended 31 December 2019. There were no transactions with related parties that had a material effect on the result for the period ended 30 June 2020 or 30 June 2019. For the period ended 31 December 2019, the ASPS completed a bulk annuity buy-in transaction with Aviva Life & Pensions UK Limited, which does not eliminate on consolidation.

B19 – Fair value

This note explains the methodology for valuing our assets and liabilities measured at fair value, and for fair value disclosures. It also provides an analysis of these according to a 'fair value hierarchy', determined by the market observability of valuation inputs.

(a) Basis for determining fair value hierarchy

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1

Inputs to Level 1 fair values are quoted prices (unadjusted) in active markets for identical assets and liabilities that the entity can access at the measurement date.

Level 2

Inputs to Level 2 fair values are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the instrument. Level 2 inputs include the following:

- Quoted prices for similar assets and liabilities in active markets.
- Quoted prices for identical or similar assets and liabilities in markets that are not active, the prices are not current, or price quotations vary substantially either over time or among market makers, or in which little information is released publicly.
- Inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, implied volatilities, and credit spreads).
- Market-corroborated inputs.

Where we use broker quotes and no information as to the observability of inputs is provided by the broker, the investments are classified as follows:

- Where the broker price is validated by using internal models with market observable inputs and the values are similar, we classify the investment as Level 2.
- In circumstances where internal models are not used to validate broker prices, or the observability of inputs used by brokers is unavailable, the investment is classified as Level 3.

Level 3

Inputs to Level 3 fair values are unobservable inputs for the asset or liability. Unobservable inputs may have been used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs reflect the assumptions the business unit considers that market participants would use in pricing the asset or liability. Examples are investment properties, and commercial and equity release mortgage loans.

The majority of the Group's assets and liabilities measured at fair value are based on quoted market information or observable market data. 17.4% of assets and 3.1% of liabilities measured at fair value are based on estimates and recorded as Level 3. Where estimates are used, these are based on a combination of independent third-party evidence and internally developed models, calibrated to market observable data where possible. Third-party valuations using significant unobservable inputs validated against Level 2 internally modelled valuations are classified as Level 3, where there is a significant difference between the third-party price and the internally modelled value. Where the difference is insignificant, the instrument would be classified as Level 2.

(b) Changes to valuation technique

There were no changes in the valuation techniques during the period compared to those described in the Group's 2019 annual report and accounts.

B19 – Fair value continued

(c) Comparison of the carrying amount and fair values of financial instruments

Set out below is a comparison of the carrying amounts and fair values of financial assets and liabilities, excluding those classified as held for sale. These amounts may differ where the asset or liability is carried on a measurement basis other than fair value, e.g. amortised cost.

	30 June 2020		30 June 2019		31 December 2019	
	Fair value £m	Carrying amount £m	Fair value £m	Carrying amount £m	Fair value £m	Carrying amount £m
Financial assets						
Loans[1]	**40,090**	**40,109**	39,417	39,452	38,559	38,579
Financial investments	**353,583**	**353,583**	343,858	343,858	343,418	343,418
Fixed maturity securities[2]	**211,264**	**211,264**	201,566	201,566	198,832	198,832
Equity securities	**91,308**	**91,308**	94,743	94,743	99,570	99,570
Other investments (including derivatives)[2]	**51,011**	**51,011**	47,549	47,549	45,016	45,016
Financial liabilities						
Non-participating investment contracts	**126,626**	**126,626**	124,306	124,306	129,365	129,365
Net asset value attributable to unitholders	**18,669**	**18,669**	16,764	16,764	16,610	16,610
Borrowings[1]	**11,366**	**10,356**	10,213	9,234	10,268	9,039
Derivative liabilities	**9,563**	**9,563**	7,041	7,041	6,517	6,517

1 Within the fair value total, the estimated fair value has been provided for the portion of the loans and borrowings that are carried at amortised cost.
2 Following a review of the classification of financial assets, HY19 comparative amounts have been amended from those previously reported. The effect of this change is to reclassify £2,741 million of assets from fixed maturity securities to other investments.

Fair value of the following assets and liabilities approximate to their carrying amounts:

- Receivables
- Cash and cash equivalents
- Loans at amortised cost
- Payables and other financial liabilities

(d) Fair value hierarchy analysis

An analysis of assets and liabilities measured at amortised cost and fair value categorised by fair value hierarchy is given below.

	Fair value hierarchy					
At 30 June 2020	Level 1 £m	Level 2 £m	Level 3 £m	Sub-total Fair value £m	Amortised cost £m	Total carrying value £m
Recurring fair value measurements						
Investment property	—	—	11,306	11,306	—	11,306
Loans	—	—	29,330	29,330	10,779	40,109
Financial investments measured at fair value						
Fixed maturity securities	58,068	132,987	20,209	211,264	—	211,264
Equity securities	90,572	—	736	91,308	—	91,308
Other investments (including derivatives)	35,164	9,487	6,360	51,011	—	51,011
Financial assets classified as held for sale	5,567	199	1,868	7,634	1	7,635
Total	189,371	142,673	69,809	401,853	10,780	412,633
Financial liabilities measured at fair value						
Non-participating investment contracts[1]	126,586	40	—	126,626	—	126,626
Net asset value attributable to unit holders	18,546	—	123	18,669	—	18,669
Borrowings	—	—	1,189	1,189	9,167	10,356
Derivative liabilities	422	8,369	772	9,563	—	9,563
Financial liabilities classified as held for sale	5,174	21	2,928	8,123	26	8,149
Total	150,728	8,430	5,012	164,170	9,193	173,363

1 In addition to the balances in this table, included within reinsurance assets in the condensed statement of financial position and note B13 are £3,021 million of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

	Fair value hierarchy			
At 30 June 2020	Level 1 £m	Level 2 £m	Level 3 £m	Total fair value £m
Non-recurring fair value measurement				
Properties occupied by group companies	—	—	349	349
Total	—	—	349	349

IFRS 13, *Fair Value Measurement,* permits assets and liabilities to be measured at fair value on either a recurring or non-recurring basis. Recurring fair value measurements are those that other IFRSs require or permit in the statement of financial position at the end of each reporting period, whereas non-recurring fair value measurements of assets or liabilities are those that other IFRSs require or permit in the statement of financial position in particular circumstances. The value of owner-occupied properties measured on a non-recurring basis at 30 June 2020 was £349 million *(HY19: £362 million; 2019: £320 million)*, stated at their revalued amounts in line with the requirements of IAS 16, *Property, Plant and Equipment*.

B19 – Fair value continued
(d) Fair value hierarchy analysis continued

At 30 June 2019	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Sub-total Fair value £m	Amortised cost £m	Total carrying value £m
Recurring fair value measurements						
Investment property	—	—	11,471	11,471	—	11,471
Loans	—	—	27,279	27,279	12,173	39,452
Financial investments measured at fair value						
Fixed maturity securities[1,2]	58,063	125,495	18,008	201,566	—	201,566
Equity securities	94,267	—	476	94,743	—	94,743
Other investments (including derivatives)[2]	35,936	6,130	5,483	47,549	—	47,549
Financial assets classified as held for sale	5,075	20	1,814	6,909	—	6,909
Total	193,341	131,645	64,531	389,517	12,173	401,690
Financial liabilities measured at fair value						
Non-participating investment contracts[3]	124,260	46	—	124,306	—	124,306
Net asset value attributable to unit holders	16,742	—	22	16,764	—	16,764
Borrowings	—	—	1,227	1,227	8,007	9,234
Derivative liabilities	304	6,054	683	7,041	—	7,041
Financial liabilities classified as held for sale	5,075	20	2,927	8,022	—	8,022
Total	146,381	6,120	4,859	157,360	8,007	165,367

1 Following a review of the fair value hierarchy for fixed maturity securities, a new framework has been implemented to improve consistency across the Group. Comparative amounts have been amended from those previously reported and the effect of this change is to move £14,442 million of fixed maturity securities from fair value hierarchy Level 1 to Level 2 and £2,267 million from Level 2 to Level 1.
2 Following a review of the classification of financial assets, comparative amounts have been amended from those previously reported. The effect of this change is to reclassify £2,741 million of assets from fixed maturity securities to other investments and £3,640 million of assets from fair value hierarchy Level 2 to Level 1.
3 In addition to the balances in this table, included within reinsurance assets in the condensed statement of financial position and note B13 are £4,285 million of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

At 30 June 2019	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Total fair value £m
Non-recurring fair value measurement				
Properties occupied by group companies	—	—	362	362
Total	—	—	362	362

At 31 December 2019	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Sub-total Fair value £m	Amortised cost £m	Total carrying value £m
Recurring fair value measurements						
Investment property	—	—	11,203	11,203	—	11,203
Loans	—	—	28,319	28,319	10,260	38,579
Financial investments measured at fair value						
Fixed maturity securities[1]	56,124	125,113	17,595	198,832	—	198,832
Equity securities	98,850	—	720	99,570	—	99,570
Other investments (including derivatives)	32,465	6,878	5,673	45,016	—	45,016
Financial assets classified as held for sale	5,788	50	1,986	7,824	1	7,825
Total	193,227	132,041	65,496	390,764	10,261	401,025
Financial liabilities measured at fair value						
Non-participating investment contracts[2]	129,323	42	—	129,365	—	129,365
Net asset value attributable to unit holders	16,498	—	112	16,610	—	16,610
Borrowings	—	—	1,233	1,233	7,806	9,039
Derivative liabilities	418	5,444	655	6,517	—	6,517
Financial liabilities classified as held for sale	5,259	20	3,045	8,324	28	8,352
Total	151,498	5,506	5,045	162,049	7,834	169,883

1 Following a review of the fair value hierarchy for fixed maturity securities, a new framework has been implemented to improve consistency across the Group. Comparative amounts have been amended from those previously reported and the effect of this change is to move £14,681 million of fixed maturity securities from fair value hierarchy Level 1 to Level 2 and £3,167 million from Level 2 to Level 1.
2 In addition to the balances in this table, included within reinsurance assets in the condensed statement of financial position and note B13 are £4,006 million of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

At 31 December 2019	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Total fair value £m
Non-recurring fair value measurement				
Properties occupied by group companies	—	—	320	320
Total	—	—	320	320

B19 – Fair value continued

(e) Transfers between Levels of the fair value hierarchy

For financial instruments that are recognised at fair value on a recurring basis, the Group determines whether transfers have occurred between levels of the fair value hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of the reporting period.

Transfers between Level 1 and Level 2

There were no significant transfers between Level 1 and Level 2 investments during the six month period ended 30 June 2020.

Transfers to/from Level 3

Transfers into Level 3 assets of £1.7 billion and transfers out of Level 3 assets of £0.5 billion relate principally to debt securities held in the UK. These are transferred between Levels 2 and 3 depending on the availability of observable inputs and whether the counterparty and broker quotes are corroborated using valuation models with observable inputs.

(f) Further information on Level 3 assets and liabilities

The table below shows movement in the Level 3 assets and liabilities measured at fair value.

								Assets			Liabilities
At 30 June 2020	**Investment Property £m**	**Loans £m**	**Fixed maturity securities £m**	**Equity securities £m**	**Other investments (including derivatives) £m**	**Financial assets classified as held for sale £m**	**Non participating investment contracts £m**	**Net asset value attributable to unitholders £m**	**Derivative liabilities £m**	**Borrowings £m**	**Financial liabilities classified as held for sale £m**
Opening balance at 1 January 2020	**11,203**	**28,319**	**17,595**	**720**	**5,673**	**1,986**	**—**	**(112)**	**(655)**	**(1,233)**	**(3,045)**
Total net gains/(losses) recognised in the income statement[1]	**(396)**	**507**	**145**	**(37)**	**93**	**(170)**	**—**	**—**	**(197)**	**34**	**170**
Total net gains/(losses) recognised in other comprehensive income	**(3)**	**—**	**—**	**—**	**2**	**—**	**—**	**—**	**—**	**—**	**—**
Purchases	**624**	**753**	**1,486**	**122**	**585**	**146**	**(63)**	**(11)**	**(13)**	**—**	**(147)**
Issuances	**—**	**46**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Disposals	**(476)**	**(311)**	**(836)**	**(107)**	**(296)**	**(75)**	**63**	**—**	**84**	**10**	**75**
Settlements	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**18**	**—**	**—**
Transfers into Level 3	**—**	**—**	**1,700**	**11**	**—**	**31**	**—**	**—**	**—**	**—**	**(31)**
Transfers out of Level 3	**—**	**—**	**(540)**	**—**	**—**	**(50)**	**—**	**—**	**—**	**—**	**50**
Foreign exchange rate movements	**354**	**16**	**659**	**27**	**303**	**—**	**—**	**—**	**(9)**	**—**	**—**
Balance at 30 June 2020	**11,306**	**29,330**	**20,209**	**736**	**6,360**	**1,868**	**—**	**(123)**	**(772)**	**(1,189)**	**(2,928)**

1 Total net gains/(losses) recognised in the income statement includes realised gains/(losses) on disposals.

								Assets			Liabilities
At 30 June 2019	Investment Property £m	Loans £m	Fixed maturity securities[1] £m	Equity securities £m	Other investments (including derivatives)[1] £m	Financial assets classified as held for sale £m	Non participating investment contracts £m	Net asset value attributable to unitholders £m	Derivative liabilities £m	Borrowings £m	Financial liabilities classified as held for sale £m
Opening balance at 1 January 2019	11,482	25,008	16,503	414	5,182	1,992	—	(25)	(534)	(1,225)	(3,100)
Total net gains/(losses) recognised in the income statement[2]	34	688	604	3	76	34	—	—	(168)	(10)	(34)
Total net gains/(losses) recognised in other comprehensive income	—	—	—	—	—	8	—	—	—	—	—
Purchases	753	1,802	1,116	95	577	36	(68)	—	(62)	—	(40)
Issuances	—	80	—	—	—	—	—	—	—	—	—
Disposals	(788)	(818)	(849)	(29)	(324)	(163)	68	3	83	8	162
Settlements	—	—	—	—	—	—	—	—	—	—	—
Transfers into Level 3	—	519	848	(8)	8	1	—	—	—	—	(8)
Transfers out of Level 3	—	—	(197)	—	(32)	(94)	—	—	—	—	93
Foreign exchange rate movements	(10)	—	(17)	1	(4)	—	—	—	(2)	—	—
Balance at 30 June 2019	11,471	27,279	18,008	476	5,483	1,814	—	(22)	(683)	(1,227)	(2,927)

1 Following a review of the classification of financial assets, comparative amounts have been amended from those previously reported. The effect of this change is to reclassify £1,132 million of Level 3 assets from fixed maturity securities to other investments.
2 Total net gains/ (losses) recognised in the income statement includes realised gains/(losses) on disposals.

B19 – Fair value continued

(f) Further information on Level 3 assets and liabilities continued

At 31 December 2019	Assets								Liabilities		
	Investment Property £m	Loans £m	Fixed maturity securities £m	Equity securities £m	Other investments (including derivatives) £m	Financial assets classified as held for sale £m	Non participating investment contracts £m	Net asset value attributable to unitholders £m	Derivative liabilities £m	Borrowings £m	Financial liabilities classified as held for sale £m
Opening balance at 1 January 2019	11,482	25,008	16,503	414	5,182	1,992	—	(25)	(534)	(1,225)	(3,100)
Total net gains/(losses) recognised in the income statement[1]	151	844	505	(66)	6	134	—	—	(86)	(52)	(134)
Purchases	1,131	3,461	2,090	427	1,350	185	(100)	(56)	(128)	—	(134)
Issuances	—	190	12	—	—	—	—	—	—	—	—
Disposals	(1,294)	(1,170)	(1,454)	(39)	(532)	(262)	100	(31)	88	44	261
Settlements	—	—	(50)	—	—	—	—	—	—	—	—
Transfers into Level 3	—	—	1,449	1	—	49	—	—	—	—	(49)
Transfers out of Level 3	—	—	(919)	—	(142)	(112)	—	—	—	—	111
Foreign exchange rate movements	(267)	(14)	(541)	(17)	(191)	—	—	—	5	—	—
Balance at 31 December 2019	11,203	28,319	17,595	720	5,673	1,986	—	(112)	(655)	(1,233)	(3,045)

1 Total net gains/(losses) recognised in the income statement includes realised gains/(losses) on disposals.

Total net gains recognised in the income statement in the first half of 2020 in respect of Level 3 assets measured at fair value amounted to £142 million *(HY19: net gains of £1,439 million)* with net gains in respect of liabilities of £7 million *(HY19: net losses of £212 million)*.

The principal assets classified as Level 3, and the valuation techniques applied to them, are described below.

(i) Investment property

Investment property is valued in the UK at least annually by external chartered surveyors in accordance with guidance issued by The Royal Institution of Chartered Surveyors, and using estimates during the intervening period. Valuations have been performed more frequently since the onset of COVID-19 and have taken place at least quarterly, with a particular focus on sectors deemed to be exposed to higher risk of default as a result of the pandemic, such as retail. Valuations have been performed for all UK properties since the onset of COVID-19. Outside the UK, valuations are produced by external qualified professional appraisers in the countries concerned. Investment properties are valued on an income approach that is based on current rental income plus anticipated uplifts at the next rent review, lease expiry, or break option taking into consideration lease incentives and assuming no further growth in the estimated rental value of the property. External valuations include a capital deduction on properties in the retail and leisure sectors to reflect the increased tenant risk arising from COVID-19. The uplift and discount rates are derived from rates implied by recent market transactions on similar properties. These inputs are deemed unobservable.

(ii) Loans

- Commercial mortgage loans and Primary Healthcare loans held by our UK Life business are valued using a Portfolio Credit Risk Model. This model calculates a Credit Risk Adjusted Value for each loan. The risk adjusted cash flows are discounted using a yield curve, taking into account the term dependent gilt yield curve and global assumptions for the liquidity premium. Loans valued using this model have been classified as Level 3 as the liquidity premium is deemed to be non-market observable. The liquidity premium used in the discount rate ranges between 75 bps to 110 bps *(2019: 65 bps to 80 bps)*.
- Equity release mortgage loans held by our UK Life business are valued using an internal model, with fair value initially being equal to the transaction price. The value of these loans is dependent on the expected term of the mortgage and the forecast property value at the end of the term, and is calculated by adjusting future cash flows for credit risk and discounting using a yield curve plus an allowance for illiquidity. At 30 June 2020 the illiquidity premium used in the discount rate was 195 bps *(2019: 160 bps)*.
  The mortgages have a no negative equity guarantee (NNEG) such that the cost of any potential shortfall between the value of the loan and the realised value of the property, at the end of the term, is recognised by a deduction to the value of the loan. Property valuations at the reporting date are obtained by taking the most recent valuation for the property and indexing using market observable regional house price indices.
  NNEG is calculated using base property growth rates reduced for the cost of potential dilapidations, using a stochastic model. In addition, a cost of capital charge is applied to reflect the variability in these cash flows. The base property growth rate assumption is RPI +0.75% which equates to a long-term average growth rate of 3.9% pa at 30 June 2020 *(2019: 4.0% pa)*. After applying the cost of capital charge, dilapidations and the stochastic distribution, the effective net long-term growth rate equates to 0.4% pa *(2019: 0.5% pa)*.
- At 30 June 2019 and 31 December 2019, mortgage loan assumptions for future property growth included a specific allowance for the possible adverse impact of the decision for the UK to leave the European Union, which has now been removed. Future property growth assumptions are now updated on a quarterly basis and as at 30 June 2020, mortgage loan assumptions for future property growth include a reduction in the cumulative 5-year growth rate assumption (from 2020-24) followed by the long-term growth rate.
- Infrastructure and Private Finance Initiative (PFI) loans held by our UK Life business are valued using a discounted cash flow model. This adds spreads for credit and illiquidity to a risk-free discount rate. Credit spreads used in the discount rate are calculated using an internally developed methodology which depends on the credit rating of each loan, credit spreads on publicly traded bonds and an estimated recovery rate in event of default and are deemed to be unobservable.

B19 – Fair value continued

(f) Further information on Level 3 assets and liabilities continued

(iii) Fixed maturity securities

- Structured bond-type and non-standard debt products held by our business in France have no active market. These debt securities are valued either using counterparty or broker quotes and validated against internal or third-party models. These bonds have been classified as Level 3 because either (i) the third-party models included a significant unobservable liquidity adjustment, or (ii) differences between the valuation provided by the counterparty and broker quotes and the validation model were sufficiently significant to result in a Level 3 classification.
- Non-standard debt products and privately placed bonds held by our businesses in the UK do not trade in an active market. These debt securities are valued using discounted cash flow models, designed to appropriately reflect the credit and illiquidity risk of the instrument. These bonds have been classified as Level 3 because the valuation approach includes significant unobservable inputs and an element of subjectivity in determining appropriate credit and illiquidity spreads.
- Debt securities held by our French, UK and Asia businesses, which are not traded in an active market, have been valued using third party or counterparty valuations. These prices are considered to be unobservable due to infrequent market transactions.

(iv) Equity securities

- Equity securities which primarily comprise of private equity holdings held in the UK are valued by a number of third-party specialists. These are valued using a range of techniques, including earnings multiples, forecast cash flows and price/earnings ratios which are deemed to be unobservable.

(v) Other investments (including derivatives)

- Other investments are held for index-linked, unit-linked and with-profit funds and are valued based on external valuation reports received from fund managers. The investments consist of:
  - Unit trusts;
  - Other investment funds including property funds;
  - External hedge funds held principally by business in the UK and France; and
  - Derivatives.
- Where valuations are at a date other than the balance sheet date, as is the case for some private equity funds, adjustments are made for items such as subsequent draw-downs and distributions and the fund manager's carried interest.

(vi) Financial assets of operations classified as held for sale

- Financial assets of operations classified as held for sale are held by our Asia business and consist primarily of discretionary managed funds of £1,401 million *(2019: £1,404 million)* and debt securities which are not traded in an active market and have been valued using third party or counterparty valuations of £309 million *(2019: £401 million)*. These assets are included within the relevant asset category within the sensitivity table below.

(vii) Liabilities

The principal liabilities classified as Level 3, and the valuation techniques applied to them, are:

- £2,928 million *(2019: £3,045 million)* of non-participating investment contract liabilities, classified as held for sale, are classified as Level 3, either because the underlying unit funds are classified as Level 3 assets or because the liability relates to unfunded units or other non-unit adjustments which are based on a discounted cash flow analysis using unobservable market data and assumptions.
- Securitised mortgage loan notes, presented within Borrowings, are valued using a similar technique to the related Level 3 securitised mortgage assets.

Where these valuations are at a date other than the balance sheet date, as in the case of some private equity funds, adjustments are made to reflect items such as subsequent drawdowns and distributions and the fund manager's carried interest.

Sensitivities

The valuation of Level 3 assets involves a high degree of judgement and estimation uncertainty due to the reliance of valuation models on unobservable inputs. Where possible, the Group tests the sensitivity of the fair values of Level 3 assets and liabilities to changes in unobservable inputs to reasonable alternatives. Level 3 valuations are sourced from independent third parties when available and, where appropriate, validated against internally-modelled valuations, third-party models or broker quotes. Where third-party pricing sources are unwilling to provide a sensitivity analysis for their valuations, the Group undertakes, where feasible, sensitivity analysis on the following basis:

- For third-party valuations validated against internally-modelled valuations using significant unobservable inputs, the sensitivity of the internally-modelled valuation to changes in unobservable inputs to a reasonable alternative is determined.
- For third-party valuations either not validated or validated against a third-party model or broker quote, the third-party valuation in its entirety is considered an unobservable input. Sensitivities are determined by flexing inputs of internal models to a reasonable alternative, including the yield, NAV multiple or other suitable valuation multiples of the financial instrument implied by the third-party valuation. For example, for a fixed income security the implied yield would be the rate of return which discounts the security's contractual cash flows to equal the third-party valuation.

Valuation uncertainty on assets which rely on either unobservable long-term assumptions or comparable market transactions as valuation inputs has been impacted by the economic disruption resulting from the COVID-19 pandemic. In particular assets, relying on comparable market transactions for a valuation have been more difficult to value due to a reduction in the level of available market evidence. A number of property valuers have included 'material uncertainty declarations' in their valuation reports to reflect this. The pandemic has also increased uncertainty in relation to long term economic assumptions such as residential and commercial property growth rate assumptions.

B19 – Fair value continued

(f) Further information on Level 3 assets and liabilities continued

The tables below show the sensitivity of the fair value of Level 3 assets and liabilities to changes in unobservable inputs to a reasonable alternative:

	30 June 2020 Fair value £bn	Most significant unobservable input	Reasonable alternative	Sensitivities Positive Impact £bn	Sensitivities Negative Impact £bn
Investment property	**11.3**	Equivalent rental yields	+/- 5-10%	**0.9**	**(0.9)**
Loans					
Commercial mortgage loans and Primary Healthcare loans	**12.9**	Illiquidity premium	+/- 20 bps	**0.2**	**(0.2)**
		Base property growth rate	+/- 100bps p.a.	**0.1**	**(0.1)**
Equity release mortgage loans	**11.5**	Base property growth rate	+/- 40bps p.a.	**0.2**	**(0.2)**
		Current property market values	+/- 10%	**0.4**	**(0.4)**
Infrastructure and Private Finance Initiative (PFI) loans	**4.6**	Illiquidity premium	+/- 25 bps[1]	**0.2**	**(0.2)**
Other	**0.4**	Illiquidity premium	+/- 25 bps[1]	**—**	**—**
Fixed maturity securities					
Structured bond-type and non-standard debt products	**6.3**	Market spread (credit, liquidity and other)	+/- 25 bps	**0.1**	**(0.1)**
Privately placed notes	**1.7**	Credit spreads	+/- 25 bps[1]	**0.1**	**(0.1)**
Other debt securities	**12.5**	Credit and liquidity spreads	+/- 20-25 bps	**0.5**	**(0.5)**
Equity securities	**0.8**	Market spread (credit, liquidity and other)	+/- 25 bps	**0.1**	**(0.1)**
Other investments					
Property Funds	**0.8**	Market multiples applied to net asset values	+/- 15-20%	**0.1**	**(0.1)**
Other investments (including derivatives)	**7.0**	Market multiples applied to net asset values	+/- 10-40%[2]	**0.8**	**(0.7)**
Liabilities					
Non-participating investment contract liabilities	**(2.9)**	Fair value of the underlying unit funds	+/- 20-25%	**0.4**	**(0.4)**
Borrowings	**(1.2)**	Illiquidity premium	+/- 50 bps	**—**	**—**
Other liabilities (including derivatives)	**(0.9)**	Independent valuation vs counterparty	N/A	**—**	—
Total Level 3 investments	**64.8**			**4.1**	**(4.0)**

1 On discount spreads.
2 Dependent on investment category.

	30 June 2019 Fair value £bn	Most significant unobservable input	Reasonable alternative	Sensitivities Positive Impact £bn	Sensitivities Negative Impact £bn
Investment property	11.5	Equivalent rental yields	+/- 5-10%	0.9	(0.9)
Loans					
Commercial mortgage loans and Primary Healthcare loans	12.3	Illiquidity premium	+/- 20 bps	0.2	(0.2)
		Base property growth rate	+/- 100bps p.a.	0.2	(0.2)
Equity release mortgage loans	10.5	Base property growth rate	+/- 40bps p.a.	0.2	(0.2)
		Current property market values	+/- 10%	0.3	(0.4)
Infrastructure and Private Finance Initiative (PFI) loans	4.1	Illiquidity premium	+/- 25 bps[1]	0.2	(0.2)
Other	0.4	Illiquidity premium	+/- 25 bps[1]	—	—
Fixed maturity securities					
Structured bond-type and non-standard debt products	6.8	Market spread (credit, liquidity and other)	+/- 25 bps	0.1	(0.1)
Privately placed notes	1.5	Credit spreads	+/- 25 bps[1]	—	—
Other debt securities[3]	10.1	Credit and liquidity spreads	+/- 20-25 bps	0.4	(0.5)
Equity securities	0.5	Market spread (credit, liquidity and other)	+/- 25 bps	—	—
Other investments					
Property Funds	0.8	Market multiples applied to net asset values	+/- 15-20%	0.1	(0.1)
Other investments (including derivatives)[3]	6.0	Market multiples applied to net asset values	+/- 10-40%[2]	0.7	(0.5)
Liabilities					
Non-participating investment contract liabilities	(2.9)	Fair value of the underlying unit funds	+/- 20-25%	0.4	(0.4)
Borrowings	(1.2)	Illiquidity premium	+/- 50 bps	—	—
Other liabilities (including derivatives)	(0.7)	Independent valuation vs counterparty	N/A	—	—
Total Level 3 investments	59.7			3.7	(3.7)

1 On discount spreads.
2 Dependent on investment category.
3 Following a review of the classification of financial assets, comparative amounts have been amended from those previously reported. The effect of this change is to reclassify £1,132 million of Level 3 assets from fixed maturity securities to other investments.

B19 – Fair value continued

(f) Further information on Level 3 assets and liabilities continued

	31 December 2019 Fair value £bn	Most significant unobservable input	Reasonable alternative	Sensitivities Positive Impact £bn	Sensitivities Negative Impact £bn
Investment property	11.2	Equivalent rental yields	+/- 5-10%	0.9	(0.9)
Loans					
Commercial mortgage loans and Primary Healthcare loans	12.9	Illiquidity premium	+/- 20 bps	0.2	(0.2)
		Base property growth rate	+/- 100bps p.a.	0.2	(0.1)
Equity release mortgage loans	11.0	Base property growth rate[1]	+/- 40bps p.a.	0.2	(0.2)
		Current property market values[1]	+/- 10%	0.3	(0.4)
Infrastructure and Private Finance Initiative (PFI) loans	4.0	Illiquidity premium	+/- 25 bps[2]	0.2	(0.2)
Other	0.4	Illiquidity premium	+/- 25 bps[2]	—	—
Fixed maturity securities					
Structured bond-type and non-standard debt products	6.4	Market spread (credit, liquidity and other)	+/- 25 bps	0.1	(0.1)
Privately placed notes	1.7	Credit spreads	+/- 25 bps[2]	0.1	(0.1)
Other debt securities	9.9	Credit and liquidity spreads	+/- 20-25 bps	0.5	(0.5)
Equity securities	0.8	Market spread (credit, liquidity and other)	+/- 25 bps	—	(0.1)
Other investments					
Property Funds	0.8	Market multiples applied to net asset values	+/- 15-20%	0.1	(0.1)
Other investments (including derivatives)	6.4	Market multiples applied to net asset values	+/- 10-40%[3]	0.8	(0.6)
Liabilities					
Non-participating investment contract liabilities	(3.0)	Fair value of the underlying unit funds	+/- 20-25%	0.4	(0.4)
Borrowings	(1.2)	Illiquidity premium	+/- 50 bps	—	—
Other liabilities (including derivatives)	(0.8)	Independent valuation vs counterparty	N/A	—	—
Total Level 3 investments	60.5			4.0	(3.9)

1 The sensitivity impacts for base property growth rate and current property market values for equity release mortgage loans were incorrectly transposed at 31 December 2019 and have been amended from the impacts previously reported.
2 On discount spreads.
3 Dependent on investment category.

The above tables demonstrate the effect of a change in one unobservable input while other assumptions remain unchanged. In reality, there may be a correlation between the unobservable inputs and other factors. It should also be noted that some of these sensitivities are non-linear, and larger or smaller impacts should not be interpolated or extrapolated from these results.

B20 – Risk management

Risk management is key to Aviva's success. We accept the risks inherent to our core business lines of life, health and general insurance and asset management. We mitigate these risks through our scale, geographic spread, the variety of the products and services we offer and the channels through which we sell them. We receive premiums which we invest to maximise risk-adjusted returns, so that we can fulfil our promises to customers while providing a return to our shareholders. In doing so we have a preference for retaining those risks we believe we are capable of managing to generate a return.

Our sustainability and financial strength are underpinned by an effective risk management process which helps us identify major risks to which we may be exposed, establish appropriate controls and take mitigating actions for the benefit of our customers and investors. The Group's risk strategy is to invest its available capital to optimise the balance between return and risk while maintaining an appropriate level of economic (i.e. risk-based) capital and regulatory capital. Consequently, our risk management goals are to:

- Embed rigorous risk management throughout the business, based on setting clear risk appetites and staying within these;
- Allocate capital where it will make the highest returns on a risk-adjusted basis; and
- Meet the expectations of our customers, investors and regulators that we will maintain sufficient capital surpluses to meet our liabilities even if a number of extreme risks materialise.

Aviva's risk management framework has been designed and implemented to support these objectives. The key elements of our risk management framework comprise our risk appetite; risk governance, including risk policies and business standards, risk oversight committees and roles and responsibilities; and the processes we use to identify, measure, manage, monitor and report risks, including the use of our risk models and stress and scenario testing.

The Group's overarching risk management and internal control system is actively responding to the challenges of the COVID-19 outbreak and remains intact. Work remains ongoing to ensure that the control environment remains robust in the current operating environment.

Risk environment

During the first half of 2020 the Group has been impacted by the COVID-19 pandemic through its insurance products and asset holdings as well as ongoing difficult conditions in the global financial markets and the economy generally. General insurance products are impacted as a result of disruption to business and travel insured by the Group; life protection products as a result of increased mortality; savings and asset management revenues which are sensitive to asset values; and income protection, critical illness and health insurance products as a result of increased morbidity, offset by a potential reduction in annuity payments.

We have seen COVID-19 have a significant impact on the global economy and markets. Key impacts have been observed from large equity market falls and falls in interest rates. We have taken a number of actions to reduce our exposure to equity and interest rate risk across all our markets. We have also taken a number of actions to reduce our exposure to credit spread and counterparty default risk across our major markets. The Group's balance sheet exposure has been reviewed and actions are being taken to further reduce the sensitivity to economic shocks.

Risks associated with business conduct and financial crime have heightened in the period with COVID-19 becoming a pretext for phishing activity, leading to pension and investment fraud. An increase in switching, churning and exaggerated or fraudulent claims is expected, particularly if the economic impact is prolonged. Our controls have been effectively monitoring this situation.

In the current climate, areas of increased conduct risk have been identified across the Group in relation to the financial vulnerability of our customers, product suitability and fair value. In response, our businesses have taken action to support the needs of different customer groups and we continue to work with local regulators. Steps have been taken to support our customers and their local communities, whether that be through extension of covers, additional support to customers and charitable donations.

In addition, we continue to closely monitor the UK-EU Free Trade Agreement (FTA) negotiations and the risk that the UK and EU fail to reach a deal or agree an extension by 31 December 2020, the end of the transition period. The Group continues to maintain its contingency plans from 2019 in relation to which would have meant it was prepared for a 'No Deal' scenario. Through the Association of British Insurers (ABI) and directly, we are actively engaged to achieve a satisfactory outcome to Solvency II equivalence. We will also continue to monitor and ensure we are prepared for other potential, yet to be determined consequences of the UK's exit of the European Union.

Looking forward, technology and innovation, cyber resilience, conduct, financial inclusion and completion of post crisis reforms (such as the Insurance Capital Standard (ICS)) are all receiving regulatory focus. Climate change continues to gain increasing focus from regulators and government bodies, Aviva remains committed to supporting a low carbon economy that will improve the resilience of our economy, society and the financial system in line with the 2015 Paris Agreement target on climate change.

The biggest immediate threat to the Group's capital and liquidity positions is the macroeconomic implications of COVID-19 pandemic. Key potential exposures come from deterioration in investment credit quality, changes in the profile of insurance losses and the impact of market movements. We continue to closely track these developments in our businesses and take appropriate actions to ensure that the impact on our businesses and our customers is limited. The Group continues to maintain strong solvency and liquidity positions through a range of scenarios and stress testing. These scenarios allow for the potential impacts of COVID-19 both directly on operations of the Group and also the wider macroeconomic environment, and the Group has considerable resilience to external shocks, even in severe downside scenarios.

The Group is in the process of implementing the new international accounting standards for insurance contracts, IFRS 17 Insurance Contracts. The impact of the adoption of IFRS 17 significantly impacts the measurement and presentation of the contracts in scope of the standard. It is expected that the standard will apply to annual reporting periods beginning on or after 1 January 2023 at the earliest. The final standard was published in June and remains subject to endorsement by the EU and the UK. We note the UKs endorsement procedure, following departure from the EU, remains under development through the transition period to the end of December 2020.

B20 – Risk management continued

Risk profile

We continue to manage our risk profile to reflect Aviva's objective of maintaining financial strength and reducing capital volatility, and reallocating capital in line with the Group's strategy. At Group and business unit level, there is a capital risk appetite which requires that sufficient capital resources be maintained to cover a stress scenario. In the period, the Group position remained within appetite. Measures to maintain the resilience of the Group's capital position include putting in place a number of foreign exchange, credit and equity hedges. These are used to mitigate the Group's foreign exchange, credit and equity risk exposure, and enable the Group to accept other credit risks offering better risk adjusted returns while remaining within risk appetite. In addition, we renewed our Group-wide catastrophe reinsurance programme to reduce the Group's potential loss to an extreme insurance loss event.

Material risks and uncertainties

In accordance with the requirements of the Financial Conduct Authority (FCA) Handbook (DTR 4.2.7) we provide an update here on the material risks and uncertainties facing the Group. The types of risks to which the Group is exposed have not changed significantly during the first half of the year and remain credit, market, liquidity, life and health insurance, general insurance, asset management and operational risks. These risks are described below. Further detail on these risks is given within note 60 of the Aviva plc Annual Report and Accounts 2019.

(a) Credit risk

Credit risk is the risk of financial loss as a result of the default or failure of third parties to meet their payment obligations to Aviva, or variations in market values as a result in changes in expectations related to these risks. Aviva has a strong record of managing credit risk and we see credit as an area where we can make a good return for the benefit of both our policyholders and shareholders.

Our approach to managing credit risk recognises that there is a risk of adverse financial impact resulting from fluctuations in credit quality of third parties including default, rating transition and credit spread movements. Our credit risks arise principally through exposures to debt security investments, structured asset investments, bank deposits, derivative counterparties, mortgage lending and reinsurance counterparties.

The Group manages its credit risk at business unit and Group level. All business units are required to implement credit risk management processes (including limits frameworks), operate specific risk management committees, and ensure detailed reporting and monitoring of their exposures against pre-established risk criteria. At Group level, we manage and monitor all exposures across our business units on a consolidated basis, and operate a Group limit framework that must be adhered to by all. The Group continues to hold a series of macro credit hedges to reduce the overall credit risk exposure.

As a result of the financial market impact of COVID-19 we have taken a number of actions to reduce our exposure to credit spread and counterparty default risk across our major markets. Actions include purchasing tactical derivative hedges, asset disposals and reallocation and reducing new business sales in certain markets and products. We continue to monitor credit quality in our commercial mortgage and equity release mortgage portfolios, specific de-risking actions include phased sales and credit hedging.

We have analysed our sector exposures to industries we consider most impacted by COVID-19. These sectors are aviation, retail, leisure, oil and gas. At 30 June 2020, our exposure to these sectors was approximately 5% of which over 90% is externally rated investment grade.

Financial assets are graded according to current external credit ratings issued. AAA is the highest possible rating. Investment grade financial assets are classified within the range of AAA to BBB ratings. Financial assets which fall outside this range are classified as sub-investment grade. The following table provides information regarding the aggregated credit risk exposure of the Group for financial assets with external credit ratings. 'Not rated' assets capture assets not rated by external ratings agencies.

As at 30 June 2020	AAA	AA	A	BBB	Below BBB	Not rated	Carrying value including held for sale £m	Less: Assets classified as held for sale £m	Carrying value £m
Fixed maturity securities	**11.1%**	**35.4%**	**20.7%**	**22.6%**	**6.2%**	**4.0%**	**211,848**	**(584)**	**211,264**
Reinsurance assets	**4.6%**	**74.0%**	**15.0%**	**4.2%**	**—**	**2.1%**	**13,351**	**(44)**	**13,307**
Other investments	**0.2%**	**0.1%**	**0.3%**	**0.1%**	**—**	**99.3%**	**57,854**	**(6,843)**	**51,011**
Loans	**12.3%**	**10.0%**	**0.2%**	**0.4%**	**—**	**77.1%**	**40,110**	**(1)**	**40,109**
Total							**323,163**	**(7,472)**	**315,691**

As at 31 December 2019	AAA	AA	A	BBB	Below BBB	Not rated	Carrying value including held for sale £m	Less: Assets classified as held for sale £m	Carrying value £m
Fixed maturity securities	10.7%	34.1%	19.7%	23.0%	8.0%	4.5%	199,481	(649)	198,832
Reinsurance assets	3.3%	75.8%	9.2%	7.8%	—	3.9%	12,431	(75)	12,356
Other investments	0.2%	—	0.3%	0.1%	—	99.4%	51,935	(6,919)	45,016
Loans	18.3%	3.8%	0.1%	—	—	77.8%	38,580	(1)	38,579
Total							302,427	(7,644)	294,783

At 30 June 2020, a significant proportion of assets remain investment grade in line with 2019. We have remained focused on high quality assets.

B20 – Risk management continued

(b) Market risk

Market risk is the risk of adverse financial impact resulting, directly or indirectly from fluctuations in interest rates, inflation, foreign currency exchange rates, equity and property prices.

We continue to limit our direct equity exposure in line with our risk preferences. At a business unit level, investment limits and local investment regulations require that business units hold diversified portfolios of assets thereby reducing exposure to individual equities. The Group does not have material holdings of unquoted equity securities.

Equity risk is also managed using a variety of derivative instruments, including futures and options. Businesses actively model the performance of equities through the use of risk models, in particular to understand the impact of equity performance on guarantees, options and bonus rates. An equity hedging strategy remains in place to help control the Group's overall direct and indirect exposure to equities. At 30 June 2020 the Group continues to hold a series of macro equity hedges to reduce the overall shareholder equity risk exposure.

Exposure to interest rate risk is monitored through several measures that include duration, capital modelling, sensitivity testing and stress and scenario testing. The impact of exposure to sustained low interest rates is considered within our scenario testing.

Some of the Group's products, principally participating contracts, expose us to the risk that changes in interest rates will impact on profits through a change in the interest spread (the difference between the amounts that we are required to pay under the contracts and the investment income we are able to earn on the investments supporting our obligations under those contracts). In the macro-economic environment, decreasing rates have been detrimental for a number of our businesses in Europe and Asia.

As a result of the significant financial market impact of COVID-19, particularly to equity markets and interest rates, we have taken a number of actions to reduce our exposure to equity and interest rate risk across all our markets. Actions include purchasing tactical derivative hedges, asset disposals and reallocations and reducing new business sales in certain markets and products. We are also exposed to the potential impact of increased defaults and downgrades on our commercial mortgage loans although we maintain conservative loan-to-value across this portfolio. Our capital position includes an allowance for the expected potential impacts from downgrades and defaults.

At a Group level we actively seek to manage currency risk primarily by matching assets and liabilities in functional currencies at the business unit level. Planned foreign currency remittances from subsidiaries and disposal proceeds are often hedged using foreign exchange forwards to provide certainty regarding the sterling value to be received by the Group, while foreign exchange swaps are in place to hedge certain non-sterling borrowings. Hedges may also be used to protect the Group's capital against a significant depreciation in local currency versus sterling. At 30 June 2020, hedges with notional values of £1,695 million (Canadian dollar £685 million, Euro £336 million and US dollar £674 million) were in place.

(c) Liquidity risk

Liquidity risk is the risk of not being able to make payments as they become due because there are insufficient assets in cash form or that can easily be turned into cash.

The relatively illiquid nature of insurance liabilities is a potential source of additional investment return by allowing us to invest in higher yielding, but less liquid assets such as commercial mortgages. The Group seeks to ensure that it maintains sufficient liquid financial resources to meet its obligations as they fall due through the application of a Group liquidity risk policy and business standard. At Group and business unit level, there is a liquidity risk appetite which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario. In the period, the Group position remained within appetite. The Group centre's main sources of liquidity are liquid assets held within Aviva plc and its subsidiary, AGH, and dividends received from the Group's insurance and asset management businesses.

Sources of liquidity in normal markets also include a variety of short and long-term instruments including commercial papers and medium and long-term debt. In addition to the existing liquid resources and expected inflows, the Group and Company maintain significant undrawn committed borrowing facilities (30 June 2020: £1.70 billion) from a range of leading international banks to further mitigate this risk. The Group centre's main sources of liquidity are liquid assets held within Aviva plc and its subsidiary, Aviva Group Holdings Limited (AGH), and dividends received from the Group's insurance and asset management businesses.

A cautious approach on cash remittances is being taken across the Group with markets retaining cash rather than remitting to Group in the wake of the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy.

(d) Life insurance risk

The impact of COVID-19 on the profile of our life insurance risks, primarily longevity, persistency, mortality and expense risk, has been limited during the first half of 2020. Longevity risk remains the Group's most significant life insurance risk due to the Group's annuity portfolio and is amplified by the current low level of interest rates.

We are also exposed to longevity risk through the Aviva Staff Pension Scheme, to which our economic exposure has been reduced since 2014 by entering into a longevity swap covering currently approximately £5 billion of pensioner in payment scheme liabilities. We purchase reinsurance for longevity risk for our annuity business and in 2019 this included the bulk annuity buy-in transaction with the Aviva Staff Pension scheme

Provisions made for insurance liabilities are inherently uncertain. Due to this uncertainty, life insurance reserves are regularly reviewed by qualified and experienced actuaries at the business unit and Group level in accordance with the Group's reserving framework. This and other risks are subject to an overarching risk management framework and various mechanisms to govern and control our risks and exposures.

B20 – Risk management continued

(d) Life insurance risk continued

We have reinsurance in place across all our markets to reduce our net exposure to potential losses. In the UK we have extensive quota share reinsurance in place on Individual Protection business and for large UK Group Life protection we have surplus reinsurance for individual claims. In Individual Protection we have also introduced additional underwriting questions, adjusted pricing and will refer more cases to manual underwriting.

In all of our markets, underwriting procedures on Individual Life Protection products limit our exposure to cohorts of the population at highest risk of COVID-19. While we have greater potential net exposure through Group Life Protection, we have taken pricing actions to limit our potential exposure from new business. We expect there to be some offset to increased protection claims as a result of COVID-19 from technical provision releases on our UK annuity portfolio

(e) General insurance and health insurance risk

The Group writes a balanced portfolio of general insurance risk (including personal motor; household; commercial motor; property and liability) across a geographical spread of markets including UK; Ireland; Canada; France; Italy; Singapore and Poland, as well as global exposure to corporate specialty risks. This risk is taken on, in line with our underwriting and pricing expertise, to provide an appropriate level of return for an acceptable level of risk. Underwriting discipline and a robust governance process is at the core of the Group's underwriting strategy.

The Group's health insurance business (including private health insurance, critical illness cover, income protection and personal accident insurance, as well as a range of corporate healthcare products) exposes the Group to morbidity risk (the proportion of our customers falling sick) and medical expense inflation.

Provisions made for insurance liabilities are inherently uncertain. Due to this uncertainty, general and health insurance reserves are regularly reviewed by qualified and experienced actuaries at the business unit and Group level in accordance with the Group's reserving framework. These and other key risks, including the occurrence of unexpected claims from a single source or cause and inadequate reinsurance protection/risk transfer, are subject to an overarching risk management framework and various mechanisms to govern and control our risks and exposures. We recognise that the severity and frequency of weather-related events has the potential to adversely impact provisions for insurance liabilities and our earnings, with the result that there is some seasonality in our results from period to period. Large catastrophic (CAT) losses arising as a result of these events are explicitly considered in our economic capital modelling to ensure we are resilient to such CAT scenarios.

As at 30 June 2020, Aviva's general insurance and health insurance risk profile continues to be closely monitored. Our key General insurance and health exposures, together with mitigants, are:

- Business Interruption: For the significant majority of the Group's UK General Insurance commercial policies, where policy wordings are determined by the Company, cover is based on a specified list of diseases. These policies exclude business interruption due to new and emerging diseases, like COVID-19. Business interruption losses stemming from the current COVID-19 outbreak are therefore not covered under the significant majority of policies but there is a risk that litigation will be required to provide legal clarity in terms of the events and the cover provided under broker determined business interruption policy wordings where we are the lead or follow insurer and many of the issues are now subject to the outcome of the FCA test case. There is also an exposure to business interruption policies in Canada, where we have agreed there is cover under a specific pandemic risk cover for Canadian dentists, and in Ireland. There is a similar risk of litigation being required in these jurisdictions to provide legal clarity on other business interruption policy wordings.
- Travel Insurance: We are potentially exposed to claims due to travel cancellation, disruption and sickness where this is insured by the Group, primarily in the UK. We are only exposed to losses after recoveries have been made from travel providers (e.g. tour operators or airlines) and agents. Travel disruption is not part of our Aviva UK Direct cover and was removed as a policy option on 9 March but is included as standard in the majority of the added value accounts with our banking partners. We ceased accepting new Aviva UK Direct business, except annual cover renewals from 13 March. Prior to these actions we took pricing actions to limit our potential exposure to new business. Any potential losses are partially mitigated through profit commission and future pricing agreements with distribution partners.
- Reinsurance: The Group purchases reinsurance protections on its property portfolio that includes coverage for business interruption. The Group is seeking reinsurance recoveries of business interruption losses which the Group has paid and which it believes to be covered under the terms of that reinsurance, but there is a risk of reinsurer challenge to coverage that would require dispute resolution procedures to resolve and a consequent risk to recovery.

These exposures are partially offset by favourable impacts in other product lines (e.g. frequency benefits on motor lines). The continuing nature of the event means that our final exposure is subject to a significant degree of uncertainty. Further information on the quantitative impact on our businesses is disclosed in section B3.

(f) Asset management risk

Asset management risk is the failure to provide expected investment outcomes for clients resulting in reduced new business and loss of sustainable earnings. The risk arises through loss of client business due to poor investment performance or fund liquidity, product competitiveness, talent retention and capability.

Aviva is directly exposed to the risks associated with operating an asset management business through its ownership of Aviva Investors. The underlying risk profile of our asset management risk is managed via investment performance reviews, recruitment and retention of specialist investment professionals and leadership, product development capabilities, fund liquidity management, competitive margins, client retention strategies, and proactive responses to regulatory developments. Funds invested in illiquid assets such as real estate and infrastructure projects are particularly exposed to liquidity risk. These key risks are monitored on an ongoing basis with issues escalated to the Aviva Investors Risk Management Committee and ultimately to the Aviva Investors Holdings Limited Board Risk Committee.

Due to the adverse impact of COVID-19 on the UK commercial property sectors, and in particular the difficulty in being able to assign values to our commercial property portfolios, we have temporarily suspended our commercial property funds to redemptions. We perform stress tests to ensure that our portfolios are managed within client mandates.

B20 – Risk management continued

(g) Operational risk

The Group continues to operate, validate and enhance its key operational controls and purchase insurance to minimise losses arising from inadequate or ineffective internal processes, people and systems or from external events. The Group maintains constructive relationships with its regulators around the world and developments in relation to key regulatory changes, such as requirements for Global Systemically Important Insurers (G-SII), are monitored closely.

Our success and results are, to a certain extent, dependent on the strength of our brands, the brands of our partners and our reputation with customers, agents, regulators, rating agencies, investors and analysts. While we are well recognised, we are vulnerable to adverse market and customer perception. Any of our brands or our reputation could also be affected if products or services recommended by us or any of our intermediaries do not perform as expected whether or not the expectations are well founded, or the customer's expectations for the product have changed. We monitor this risk and have controls in place to limit our exposure.

COVID-19 has resulted in increased level of inherent operational risk through new practices including enforced remote working, staff absences for sickness and childcare, market volatility and through our outsourcing arrangements. Additional risks relating to extensive working from home; include cyber, data loss and occupational health. We have adapted and strengthened our processes and controls to ensure operational risks remain at an acceptable level. Since the onset of the pandemic the Group has remained operationally resilient, with key activities such as cash payments and transaction processing being maintained, IT systems remaining operational, and employees including frontline customer facing staff being supported to ensure that that we are there to support our customers when they need us most.

Aviva has not seen a material increase in the volume of cyber incidents/attacks as a result of COVID-19 but has seen external threat actors exploiting the COVID-19 pandemic within such attacks e.g. phishing, texts and phone calls. In response to this Aviva has put in place a programme of communications to ensure Aviva employees are aware of such scams, published safe homeworking guides and run online training for our employees and their families. Support has also been given to our customers, including the launch of an online reporting facility to help combat fraud.

(h) Sensitivity test analysis

The Group uses a number of sensitivity tests to understand the volatility of its earnings and capital requirements and to manage its capital more efficiently. Sensitivities to economic and operating experience are regularly produced on the Group's key financial performance metrics to inform the Group's decision making and planning processes, and as part of the framework for identifying and quantifying the risks to which each of its business units, and the Group as a whole, are exposed.

Illustrative results of sensitivity testing for long-term business, general insurance and health business and the fund management and non-insurance business are set out below. For each sensitivity test the impact of a reasonably possible change in a single factor is shown, with other assumptions left unchanged. Each test allows for any consequential impact on the asset liability valuations.

Sensitivity factor	Description of sensitivity factor applied
Interest rate and investment return	The impact of a change in market interest rates by a 1% increase or decrease. The test allows consistently for similar changes to investment returns and movements in the market value of backing fixed interest securities.
Credit spreads	The impact of a 0.5% increase in credit spreads over risk-free interest rates on corporate bonds and other non-sovereign credit assets.
Equity/property market values	The impact of a change in equity/property market values by ±10%.
Expenses	The impact of an increase in maintenance expenses by 10%.
Assurance mortality/morbidity (long-term insurance only)	The impact of an increase in mortality/morbidity rates for assurance contracts by 5%.
Annuitant mortality (long-term insurance only)	The impact of a reduction in mortality rates for annuity contracts by 5%.
Gross loss ratios (non-long-term insurance only)	The impact of an increase in gross loss ratios for general insurance and health business by 5%.

B20 – Risk management continued

(h) Sensitivity test analysis continued

Long-term business sensitivities

30 June 2020 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance participating	(55)	65	(15)	(25)	25	(60)	10	(5)
Insurance non-participating	(1,135)	1,390	(695)	(90)	65	(225)	(185)	(940)
Investment participating	(80)	100	(15)	(15)	(5)	(35)	—	—
Investment non-participating	(5)	5	—	5	(10)	(10)	—	—
Assets backing life shareholders' funds	75	(55)	(45)	(60)	60	—	—	—
Total	**(1,200)**	**1,505**	**(770)**	**(185)**	**135**	**(330)**	**(175)**	**(945)**

30 June 2020 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance participating	(55)	65	(15)	(25)	25	(60)	10	(5)
Insurance non-participating	(1,135)	1,390	(695)	(90)	65	(225)	(185)	(940)
Investment participating	(80)	100	(15)	(15)	(5)	(35)	—	—
Investment non-participating	(5)	5	—	5	(10)	(10)	—	—
Assets backing life shareholders' funds	30	(15)	(40)	(60)	60	—	—	—
Total	**(1,245)**	**1,545**	**(765)**	**(185)**	**135**	**(330)**	**(175)**	**(945)**

31 December 2019 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance participating	—	5	(10)	(65)	60	(50)	10	(5)
Insurance non-participating	(985)	1,265	(800)	(120)	105	(240)	(145)	(955)
Investment participating	(85)	55	(5)	(5)	5	(25)	—	—
Investment non-participating	—	5	—	5	(5)	(5)	—	—
Assets backing life shareholders' funds	(150)	170	(35)	(35)	30	—	—	—
Total	(1,220)	1,500	(850)	(220)	195	(320)	(135)	(960)

31 December 2019 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance participating	—	5	(10)	(65)	60	(50)	10	(5)
Insurance non-participating	(985)	1,265	(800)	(120)	105	(240)	(145)	(955)
Investment participating	(85)	55	(5)	(5)	5	(25)	—	—
Investment non-participating	—	5	—	5	(5)	(5)	—	—
Assets backing life shareholders' funds	(190)	205	(30)	(30)	30	—	—	—
Total	(1,260)	1,535	(845)	(215)	195	(320)	(135)	(960)

Changes in sensitivities between 31 December 2019 and 30 June 2020 reflect underlying movements in the value of assets and liabilities, the relative duration of assets and liabilities and asset liability management actions. The sensitivities to economic and demographic movements relate mainly to business in the UK.

General insurance and health business sensitivities

30 June 2020 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	**(345)**	**335**	**(105)**	**135**	**(125)**	**(80)**	**(175)**
Net of reinsurance	**(410)**	**400**	**(105)**	**135**	**(125)**	**(80)**	**(155)**

30 June 2020 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	**(345)**	**335**	**(105)**	**140**	**(125)**	**(25)**	**(175)**
Net of reinsurance	**(410)**	**400**	**(105)**	**140**	**(125)**	**(25)**	**(155)**

31 December 2019 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	(210)	165	(115)	185	(175)	(140)	(315)
Net of reinsurance	(270)	215	(115)	185	(175)	(140)	(300)

31 December 2019 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	(210)	165	(115)	185	(175)	(25)	(315)
Net of reinsurance	(270)	215	(115)	185	(175)	(25)	(300)

For general insurance and health, the impact of the expense sensitivity on profit also includes the increase in ongoing administration expenses, in addition to the increase in the claims handling expense provision.

B20 – Risk management continued

(h) Sensitivity test analysis continued

Fund management and non-insurance business sensitivities

30 June 2020 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	—	—	**50**	**(25)**	**50**

30 June 2020 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	—	—	**50**	**(25)**	**40**

31 December 2019 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	(20)	15	40	(10)	15

31 December 2019 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	(15)	15	40	(10)	15

Limitations of sensitivity analysis

The above tables demonstrate the effect of a change in a key assumption while other assumptions remain unchanged. In reality, there is a correlation between the assumptions and other factors. It should also be noted that these sensitivities are non-linear, and larger or smaller impacts should not be interpolated or extrapolated from these results.

The sensitivity analyses do not take into consideration that the Group's assets and liabilities are actively managed. Additionally, the financial position of the Group may vary at the time that any actual market movement occurs. For example, the Group's financial risk management strategy aims to manage the exposure to market fluctuations.

As investment markets move past various trigger levels, management actions could include selling investments, changing investment portfolio allocation, adjusting bonuses credited to policyholders, and taking other protective action.

A number of the business units use passive assumptions to calculate their long-term business liabilities. Consequently, a change in the underlying assumptions may not have any impact on the liabilities, whereas assets held at market value in the statement of financial position will be affected. In these circumstances, the different measurement bases for liabilities and assets may lead to volatility in shareholder equity. Similarly, for general insurance liabilities, the interest rate sensitivities only affect profit and equity where explicit assumptions are made regarding interest (discount) rates or future inflation.

Other limitations in the above sensitivity analyses include the use of hypothetical market movements to demonstrate potential risk that only represent the Group's view of possible near-term market changes that cannot be predicted with any certainty, and the assumption that all interest rates move in an identical fashion.

B21 – Cash and cash equivalents

Cash and cash equivalents in the statement of cash flows at 30 June/31 December comprised:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Cash and cash equivalents	**19,125**	15,296	19,524
Cash and cash equivalents of operations classified as held for sale	**862**	698	780
Bank overdrafts	**(712)**	(675)	(870)
Net cash and cash equivalents at 30 June/31 December	**19,275**	15,319	19,434

B22 – Contingent liabilities and other risk factors

Note 56 of the Group's 2019 Annual report and accounts sets out the main areas of uncertainty over the calculation of claims provisions. Further to these disclosures, since the period end COVID-19 has given rise to an increase in the uncertainty over general insurance business outstanding claims provisions and long-term business provisions. The impact on the Group's insurance liabilities as a result of the global pandemic has been recognised (see note B14 for long-term business, see note B11(c) for general insurance and health business), however, due to the inherent uncertainty around the long-term impacts of COVID-19, actual experience may differ from that expected and hence there is uncertainty in respect of these liabilities.

There have been no material changes in the other areas of uncertainty over the calculation of our liabilities from those described in Note 56 of the Group's 2019 Annual report and accounts. An update on material risks is provided in note B20 Risk management.

B23 – Acquired value of in-force business and intangible assets

Acquired value of in-force (AVIF) business and intangible assets presented in the statement of financial position is comprised of:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Acquired value of in-force business on insurance contracts[1]	**1,172**	1,339	1,235
Acquired value of in-force business on investment contracts[2]	**1,127**	1,367	1,244
Intangible assets	**797**	894	847
	3,096	3,600	3,326
Less: Assets classified as held for sale	**(447)**	(576)	(526)
Total	**2,649**	3,024	2,800

1 On insurance and participating investment contracts.
2 On non-participating investment contracts.

The AVIF on insurance and investment contracts has reduced in the period primarily due to an amortisation charge of £165 million *(HY19: £191 million charge, 2019: £406 million charge).* There was also an impairment of AVIF on investment contracts of £19 million in the period relating to FPI *(HY19: £19 million, 2019: £28 million)* recorded as a remeasurement loss, as FPI is held for sale. See note B5(b).

The decrease in intangible assets is mainly due to the amortisation charge of £92 million *(HY19: £107 million charge, 2019: £212 million charge)*, partly offset by additions to intangible assets relating to the capitalisation of software costs.

B24 – Subsequent events

For details of subsequent events relating to:

- the disposal of Friends Provident International Limited on 16 July 2020 – see note B5(c)
- redemption of the 5.9021% £500 million direct capital instrument on 27 July 2020 – see note B16(b)

Directors' responsibility statement

The directors confirm that these condensed consolidated interim financial statements have been prepared in accordance with IAS 34, *Interim Financial Reporting,* as endorsed by the EU and that the interim management report includes a fair review of the information required by DTR 4.2.7 and DTR 4.2.8, namely:

- an indication of important events that have occurred during the first six months and their impact on the condensed set of financial statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
- material related-party transactions in the first six months and any material changes in the related-party transactions described in the last annual report.

Information on the current directors responsible for providing this statement can be found on the Company's website at: http://www.aviva.com/investor-relations/corporate-governance/board-of-directors/

By order of the Board

Amanda Blanc
Group Chief Executive Officer

Jason Windsor
Group Chief Financial Officer

5 August 2020

Independent review report to Aviva plc

Report on the condensed consolidated interim financial statements

Our conclusion

We have reviewed Aviva plc's condensed consolidated financial statements (the "interim financial statements") in the half year report of Aviva plc for the 6 month period ended 30 June 2020. Based on our review, nothing has come to our attention that causes us to believe that the interim financial statements are not prepared, in all material respects, in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

What we have reviewed

The interim financial statements comprise:

- the condensed consolidated statement of financial position as at 30 June 2020;
- the condensed consolidated income statement and condensed consolidated statement of comprehensive income for the period then ended;
- the condensed consolidated statement of cash flows for the period then ended;
- the condensed consolidated statement of changes in equity for the period then ended; and
- the explanatory notes to the interim financial statements.

The interim financial statements included in the half year report have been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

As disclosed in note B1 to the interim financial statements, the financial reporting framework that has been applied in the preparation of the full annual financial statements of the Group is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

Responsibilities for the interim financial statements and the review

Our responsibilities and those of the directors

The half year report, including the interim financial statements, is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the half year report in accordance with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

Our responsibility is to express a conclusion on the interim financial statements in the half year report based on our review. This report, including the conclusion, has been prepared for and only for the Company for the purpose of complying with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and for no other purpose. We do not, in giving this conclusion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

What a review of interim financial statements involves

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We have read the other information contained in the half year report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the interim financial statements.

PricewaterhouseCoopers LLP
Chartered Accountants
London

5 August 2020

Analysis of assets

As an insurance business, the Group holds a variety of assets to match the characteristics and duration of its insurance liabilities. Appropriate and effective asset liability matching (on an economic basis) is the principal way in which Aviva manages its investments. To support this, we use a variety of hedging and other risk management strategies to mitigate any residual mismatch risk that is outside of our risk appetite.

This section provides an analysis of the Group's assets with a focus on financial investments backing liabilities held by the shareholder fund.

C1 – Summary of total assets by fund

30 June 2020	Policyholder assets £m	Participating fund assets £m	Shareholder assets £m	Total assets analysed £m	Less: Assets classified as held for sale £m	Balance sheet total £m
Goodwill and acquired value of in-force business and intangible assets	—	—	4,946	4,946	(447)	4,499
Interests in joint ventures and associates	130	838	587	1,555	(56)	1,499
Property and equipment	—	191	743	934	(8)	926
Investment property	6,694	3,898	714	11,306	—	11,306
Loans	2,005	5,767	32,338	40,110	(1)	40,109
Financial investments						
Debt securities	43,873	105,420	62,555	211,848	(584)	211,264
Equity securities	78,020	12,179	1,316	91,515	(207)	91,308
Other investments	39,008	14,091	4,755	57,854	(6,843)	51,011
Reinsurance assets	3,015	478	9,858	13,351	(44)	13,307
Deferred tax assets	—	—	164	164	(2)	162
Current tax assets	—	—	181	181	—	181
Receivables and other financial assets	1,872	2,977	8,216	13,065	(62)	13,003
Deferred acquisition costs and other assets	144	1,269	5,551	6,964	(206)	6,758
Prepayments and accrued income	395	1,335	1,329	3,059	(8)	3,051
Cash and cash equivalents	8,606	4,816	6,565	19,987	(862)	19,125
Assets classified as held for sale	—	—	—	—	9,330	9,330
Total	**183,762**	**153,259**	**139,818**	**476,839**	**—**	**476,839**
Total %	**38.6%**	**32.1%**	**29.3%**	**100.0%**	**—**	**100.0%**
2019 Total	186,182	146,226	127,635	460,043	—	460,043
2019 Total %	40.5%	31.8%	27.7%	100.0%	—	100.0%

C2 – Summary of valuation bases for total shareholders assets

30 June 2020	Fair value £m	Amortised cost £m	Equity accounted/ tax assets[1] £m	Total £m
Goodwill and acquired value of in-force business and intangible assets	—	**4,946**	—	**4,946**
Interests in joint ventures and associates	—	—	**587**	**587**
Property and equipment	**249**	**494**	—	**743**
Investment property	**714**	—	—	**714**
Loans	**29,288**	**3,050**	—	**32,338**
Financial Investments				
Debt securities	**62,555**	—	—	**62,555**
Equity securities	**1,316**	—	—	**1,316**
Other investments	**4,755**	—	—	**4,755**
Reinsurance assets	**11**	**9,847**	—	**9,858**
Deferred tax assets	—	—	**164**	**164**
Current tax assets	—	—	**181**	**181**
Receivables and other financial assets	—	**8,216**	—	**8,216**
Deferred acquisition costs and other assets	—	**5,551**	—	**5,551**
Prepayments and accrued income	—	**1,329**	—	**1,329**
Cash and cash equivalents	**6,565**	—	—	**6,565**
Total	**105,453**	**33,433**	**932**	**139,818**
Total %	**75.4%**	**23.9%**	**0.7%**	**100.0%**
Less: Assets classified as held for sale	**(476)**	**(550)**	**(58)**	**(1,084)**
Total	**104,977**	**32,883**	**874**	**138,734**
Total %	**75.7%**	**23.7%**	**0.6%**	**100.0%**
2019 Total	96,834	29,956	845	127,635
2019 Total %	75.8%	23.5%	0.7%	100.0%

1 Within the Group's statement of financial position, assets are recognised for deferred tax and current tax. The valuation basis of these does not directly fall within any of the categories outlined above. As such, these assets have been reported together with equity accounted items within the analysis of the Group's assets.

C3 – Analysis of financial investments by fund

The asset allocation as at 30 June 2020 across the Group, split according to the type of the liability the assets are backing, is shown in the table below.

	Shareholder business assets				Participating fund assets				
Carrying value in the statement of financial position	General insurance & health & other[1] £m	Annuity and non-profit £m	Total shareholder assets	Policyholder (unit-linked assets) £m	UK style with-profits £m	Continental European-style participating funds £m	Total assets analysed £m	Less: Assets classified as held for sale £m	Carrying value in the statement of financial position £m
Debt securities (note C4)									
Government bonds	**6,718**	**20,919**	**27,637**	**18,731**	**12,779**	**35,594**	**94,741**	**(142)**	**94,599**
Corporate bonds	**4,359**	**23,028**	**27,387**	**17,898**	**11,645**	**36,835**	**93,765**	**(442)**	**93,323**
Other	**2,688**	**4,843**	**7,531**	**7,244**	**5,781**	**2,786**	**23,342**	**—**	**23,342**
	13,765	**48,790**	**62,555**	**43,873**	**30,205**	**75,215**	**211,848**	**(584)**	**211,264**
Loans (note C5)									
Mortgage loans	**—**	**21,977**	**21,977**	**—**	**41**	**—**	**22,018**	**—**	**22,018**
Other loans	**1,477**	**8,884**	**10,361**	**2,005**	**4,556**	**1,170**	**18,092**	**(1)**	**18,091**
	1,477	**30,861**	**32,338**	**2,005**	**4,597**	**1,170**	**40,110**	**(1)**	**40,109**
Equity securities (note C6)	**1,001**	**315**	**1,316**	**78,020**	**8,891**	**3,288**	**91,515**	**(207)**	**91,308**
Investment property (note C7)	**549**	**165**	**714**	**6,694**	**1,796**	**2,102**	**11,306**	**—**	**11,306**
Other investments (note C8)	**941**	**3,814**	**4,755**	**39,008**	**8,646**	**5,445**	**57,854**	**(6,843)**	**51,011**
Total	**17,733**	**83,945**	**101,678**	**169,600**	**54,135**	**87,220**	**412,633**	**(7,635)**	**404,998**
2019 Total	16,812	76,893	93,705	172,368	53,123	81,829	401,025	(7,825)	393,200

1 Of the £17,733 million of assets 30% relates to other shareholder business assets.

C4 –Analysis of shareholder debt securities

Fair value hierarchy

To provide further information on the valuation techniques we use to measure assets carried at fair value, we have categorised the measurement basis for assets carried at fair value into a 'fair value hierarchy' described as follows, based on the lowest level input that is significant to the valuation as a whole:

- Inputs to Level 1 fair values are quoted prices (unadjusted) in active markets for identical assets;
- Inputs to Level 2 fair values are inputs other than quoted prices included within Level 1 that are observable for the asset, either directly or indirectly. If the asset has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset; and
- Inputs to Level 3 fair values are unobservable inputs for the asset. Unobservable inputs may have been used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset at the measurement date. However, the fair value measurement objective remains the same, i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset. Unobservable inputs reflect the assumptions the business unit considers that market participants would use in pricing the asset. Examples are investment property and commercial and equity release mortgage loans.

30 June 2020	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK Government	11,072	1,499	454	13,025
Non-UK government	2,455	9,299	2,858	14,612
Europe	1,712	4,578	1,908	8,198
North America	743	3,504	622	4,869
Asia Pacific & Other	—	1,217	328	1,545
Corporate bonds – Public utilities	—	3,616	1,946	5,562
Other corporate bonds	—	17,796	4,029	21,825
Other	—	7,126	405	7,531
Total	**13,527**	**39,336**	**9,692**	**62,555**
Total %	**21.6%**	**62.9%**	**15.5%**	**100.0%**
Less: Assets classified as held for sale	(25)	(178)	—	(203)
Total	**13,502**	**39,158**	**9,692**	**62,352**
Total %	**21.7%**	**62.8%**	**15.5%**	**100.0%**
2019 Total[1]	11,604	36,798	8,155	56,557
2019 Total %[1]	20.5%	65.1%	14.4%	100.0%

1 Following a review of the fair value hierarchy for debt securities, a new framework has been implemented to improve consistency across the Group. Comparative amounts have been amended from those previously reported and the effect of this change is to move £1,450 million of debt securities from fair value hierarchy Level 1 to Level 2 and £514 million from Level 2 to Level 1.

External ratings

30 June 2020	AAA £m	AA £m	A £m	External ratings BBB £m	Less than BBB £m	Non-rated £m	Total £m
Government							
UK Government	—	12,440	224	—	—	155	12,819
UK local authorities	—	—	143	—	—	63	206
Non-UK Government	6,866	4,782	1,761	231	30	942	14,612
	6,866	17,222	2,128	231	30	1,160	27,637
Corporate							
Public utilities	—	148	1,806	2,329	14	1,265	5,562
Other corporate bonds	2,366	3,171	8,156	5,485	272	2,375	21,825
	2,366	3,319	9,962	7,814	286	3,640	27,387
Certificates of deposit	117	3,494	1,662	—	—	27	5,300
Structured							
Residential Mortgage Backed Security non-agency prime	115	—	72	—	—	—	187
	115	—	72	—	—	—	187
Commercial Mortgage Backed Security	270	139	84	56	—	24	573
Asset Backed Security	125	318	34	152	35	66	730
Asset Backed Commercial Paper	12	2	—	—	—	—	14
	407	459	118	208	35	90	1,317
Wrapped credit	—	13	448	99	5	37	602
Other	1	5	23	49	47	—	125
Total	**9,872**	**24,512**	**14,413**	**8,401**	**403**	**4,954**	**62,555**
Total %	**15.9%**	**39.2%**	**23.0%**	**13.4%**	**0.6%**	**7.9%**	**100.0%**
Less: Assets classified as held for sale	(32)	(91)	(44)	(25)	—	(11)	(203)
Total	**9,840**	**24,421**	**14,369**	**8,376**	**403**	**4,943**	**62,352**
Total %	**15.9%**	**39.2%**	**23.0%**	**13.4%**	**0.6%**	**7.9%**	**100.0%**
2019 Total	8,655	21,388	13,361	8,047	487	4,619	56,557
2019 Total %	15.3%	37.8%	23.6%	14.2%	0.9%	8.2%	100.0%

C5 – Analysis of loans

(a) Overview

The Group's loan portfolio of £40,109 million *(2019: £38,579 million)* is principally made up of the following:

- Policy loans of £716 million *(2019: £684 million)*, which are generally collateralised by a lien or charge over the underlying policy;
- Loans and advances to banks of £9,241 million *(2019: £8,830 million)*, which primarily relate to loans of cash collateral received in stock lending transactions and are therefore fully collateralised by other securities;
- Mortgage loans collateralised by property assets of £22,019 million *(2019: £21,549 million)*; and
- Healthcare, infrastructure and private financial initiative (PFI) loans of £7,010 million *(2019: £6,467 million)*.

Loans with fixed maturities, including policy loans and loans and advances to banks, are recognised when cash is advanced to borrowers. These loans are carried at their unpaid principal balances and adjusted for amortisation of premium or discount, non-refundable loan fees and related direct costs. These amounts are deferred and amortised over the life of the loan using the effective interest rate method.

For certain mortgage loans, the Group has taken advantage of the fair value option under IAS 39 *Financial Instruments: Recognition Measurement* to present the mortgages, associated borrowings, other liabilities and derivative financial instruments at fair value, since they are managed together on a fair value basis. These mortgage loans are not traded in active markets and are classified within Level 3 of the fair value hierarchy as the significant valuation assumptions and inputs are not deemed to be market observable. Of the Group's total loan portfolio, 54.9% *(2019: 55.8%)* is invested in mortgage loans. The shareholder risk relating to these loans is discussed further below.

Healthcare, infrastructure and PFI loans included within shareholder assets are £7,010 million *(2019: £6,467 million)*. These loans are secured against the income from healthcare and education premises, transportation and energy projects and as such are not considered further in this section.

(b) Analysis of shareholder mortgage loans

Mortgage loans included within shareholder assets are £21,977 million *(2019: £21,508 million)* and are all held in the UK business.

30 June 2020	Total £m
Non-securitised mortgage loans	
– Residential (Equity release)	**9,027**
– Commercial	**7,584**
– Healthcare, Infrastructure and PFI mortgage loans	**2,934**
	19,545
Securitised mortgage loans	**2,432**
Total	**21,977**
Less: Assets classified as held for sale	**—**
Total	**21,977**
2019 Total	21,508

Non-securitised mortgage loans

Residential

The UK non-securitised residential mortgage portfolio has a total value as at 30 June 2020 of £9,027 million *(2019: £8,558 million)*. The movement in the year is predominantly due to £276 million of new lending and an increase in the fair value of £177 million. Additional accrued interest in the year is largely offset by the value of redemptions. These mortgages are all in the form of equity release, whereby homeowners mortgage their property to release cash equity. Due to the structure of equity release mortgages, whereby interest amounts due are not paid in cash but instead rolled into the amount outstanding, they predominantly have a current Loan to Value (LTV) of below 70%. The average LTV across the portfolio is 28.0% *(2019: 28.2%)*.

Commercial

Gross exposure by loan to value and arrears of UK non-securitised commercial mortgages is shown in the table below.

30 June 2020	>120% £m	115–120% £m	110–115% £m	105–110% £m	100–105% £m	95–100% £m	90–95% £m	80–90% £m	70–80% £m	<70% £m	Total £m
Not in arrears	**32**	**—**	**—**	**317**	**—**	**130**	**10**	**158**	**1,008**	**5,834**	**7,489**
0 – 3 months	**—**	**—**	**—**	**—**	**—**	**51**	**—**	**—**	**12**	**32**	**95**
Total	**32**	**—**	**—**	**317**	**—**	**181**	**10**	**158**	**1,020**	**5,866**	**7,584**

Of the £7,584 million *(2019: £7,640 million)* of mortgage loans in the shareholder fund, £7,584 million are used to back annuity liabilities and are stated on a fair value basis. The UK loan exposures are calculated on a discounted cash flow basis and include a risk adjustment through the use of a Credit Risk Adjusted Value (CRAV).

For commercial mortgages, loan service collection ratio, a key indicator of mortgage portfolio performance, reduced to 2.44x *(2019: 2.56x)*. Loan Interest Cover (LIC), which is defined as the annual net rental income (including rental deposits less ground rent) divided by the annual loan interest service, reduced slightly to 2.75x *(2019: 2.90x)*. Average mortgage LTV increased from 55.6% in 2019 to 59.0%. As at 30 June 2020 loans with a value of £95 million have a balance in arrears *(2019: £nil)*.

Commercial mortgages and Healthcare, Infrastructure and PFI loans are held at fair value on the asset side of the statement of financial position. The related insurance liabilities are valued using a discount rate derived from the gross yield on assets, with adjustments to allow for risk. £17,136 million of shareholder loan assets are backing annuity liabilities and comprise of commercial mortgage loans (£7,584 million), Healthcare, Infrastructure and PFI mortgage loans (£2,934 million) and Primary Healthcare, Infrastructure and PFI other loans (£6,618 million).

C5 – Analysis of loans continued

(b) Analysis of shareholder mortgage loans continued

Non-securitised mortgage loans continued

Commercial continued

The UK portfolio remains well diversified in terms of property type, location and tenants as well as the spread of loans written over time. The risks in commercial mortgages are addressed through several layers of protection with the mortgage risk profile being primarily driven by the ability of the underlying tenant rental in income to cover loan interest and amortisation. Should any single tenant default on their rental payment, rental from other tenants backing the same loan often ensures the loan interest cover does not fall below 1.0x. Where there are multiple loans to a single borrower further protection may be achieved through cross-charging (or pooling) such that any single loan is also supported by rents received within other pool loans. Additionally, there may be support provided by the borrower of the loan itself and further loss mitigation from any general floating charge held over assets within the borrower companies.

If the LIC falls below 1.0x and the borrower defaults, then Aviva retains the option of selling the security or restructuring the loans and benefiting from the protection of the collateral. A combination of these benefits and the high recovery levels afforded by property collateral (compared to corporate debt or other uncollateralised credit exposures) results in the economic exposure being significantly lower than the gross exposure reported above. We will continue to actively manage this position.

Healthcare, Infrastructure and PFI

Primary Healthcare, Infrastructure and PFI mortgage loans included within shareholder assets of £2,934 million *(2019: £2,878 million)* are secured against primary health care premises, education, social housing and emergency services related premises. For all such loans, Government support is provided through either direct funding or reimbursement of rental payments to the tenants to meet income service and provide for the debt to be reduced substantially over the term of the loan. Although the loan principal is not Government guaranteed, the nature of these businesses provides considerable comfort of an ongoing business model and low risk of default.

On a market value basis, we estimate the average LTV of these mortgages to be 73.5% *(2019: 72.6%)*, although this is not considered to be a key risk indicator due to the Government support noted above and the social need for these premises. We therefore consider these loans to be lower risk relative to other mortgage loans.

Securitised mortgage loans

As at 30 June 2020, the Group has £2,432 million *(2019: £2,432 million)* of securitised mortgage loans held within shareholder assets. Funding for the securitised residential mortgage assets was obtained by issuing loan note securities. Of these loan notes approximately £222 million *(2019: £224 million)* are held by Group companies. The remainder is held by third parties external to Aviva. As any cash shortfall arising once all mortgages have been redeemed is borne by the loan note holders, the majority of the credit risk of these mortgages is borne by third parties rather than by shareholders. The average LTV across the securitised mortgage loans is 48.9% *(2019: 49.0%)*.

Valuation allowance

The Group carries a valuation allowance of £3.8 billion *(2019: £3.3 billion)* within insurance liabilities against the risk of default for assets backing annuities. The total valuation allowance in respect of corporate bonds was £1.4 billion *(2019: £1.3 billion)* over the remaining term of the portfolio at 30 June 2020. The total valuation allowance in respect of mortgages, including healthcare mortgages but excluding equity release, was £0.6 billion at 30 June 2020 *(2019: £0.5 billion)*. The total valuation allowance in respect of equity release mortgages was £1.8 billion at 30 June 2020 *(2019: £1.5 billion)*. The risk allowances made for corporate bonds (including overseas government bonds and structured finance assets), mortgages (including healthcare mortgages, commercial mortgages and infrastructure assets) and equity release equated to 50 bps, 37 bps, and 135 bps respectively at 30 June 2020 *(2019: 45 bps – 47 bps, 31 bps – 35 bps, and 124 bps respectively)*. Following a change in methodology this disclosure now includes total valuation allowances for all annuities in UK shareholder funds (2019 disclosure included total valuation allowances for annuities transferred in from Aviva Annuity UK Limited).

C6 – Analysis of shareholder equity securities

	30 June 2020				31 December 2019			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Public utilities	11	—	—	11	15	—	—	15
Banks, trusts and insurance companies	90	—	105	195	167	—	106	273
Industrial miscellaneous and all other	903	—	20	923	1,313	—	31	1,344
Non-redeemable preferred shares	187	—	—	187	200	—	—	200
Total	1,191	—	125	1,316	1,695	—	137	1,832
Total %	90.5%	—	9.5%	100.0%	92.5%	—	7.5%	100.0%
Less: Assets classified as held for sale	—	—	—	—	—	—	—	—
Total	1,191	—	125	1,316	1,695	—	137	1,832
Total %	90.5%	—	9.5%	100.0%	92.5%	—	7.5%	100.0%

C7 – Analysis of shareholder investment property

	30 June 2020				31 December 2019			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Leased to third parties under operating leases	—	—	714	714	—	—	687	687
Vacant investment property/held for capital appreciation	—	—	—	—	—	—	—	—
Total	—	—	714	714	—	—	687	687
Total %	—	—	100.0%	100.0%	—	—	100.0%	100.0%
Less: Assets classified as held for sale	—	—	—	—	—	—	—	—
Total	—	—	714	714	—	—	687	687
Total %	—	—	100.0%	100.0%	—	—	100.0%	100.0%

C8 – Analysis of shareholder other financial investments

	30 June 2020				31 December 2019			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Unit trusts and other investment vehicles	387	1	215	603	539	1	184	724
Derivative financial instruments	118	3,205	521	3,844	40	1,881	450	2,371
Deposits with credit institutions	2	—	—	2	5	—	—	5
Minority holdings in property management undertakings	—	50	242	292	—	34	245	279
Other	14	—	—	14	12	—	—	12
Total	521	3,256	978	4,755	596	1,916	879	3,391
Total %	11.0%	68.4%	20.6%	100.0%	17.6%	56.5%	25.9%	100.0%
Less: Assets classified as held for sale	(3)	—	—	(3)	(2)	—	—	(2)
Total	518	3,256	978	4,752	594	1,916	879	3,389
Total %	10.9%	68.5%	20.6%	100.0%	17.5%	56.6%	25.9%	100.0%

C9 – Summary of exposure to peripheral European countries

The Group's direct sovereign exposures to Ireland, Portugal, Italy and Spain (net of non-controlling interests, excluding policyholder assets) is summarised below:

	Participating		Shareholder		Total	
	30 June 2020 £bn	31 December 2019 £bn	**30 June 2020 £bn**	31 December 2019 £bn	**30 June 2020 £bn**	31 December 2019 £bn
Ireland	**0.7**	0.8	**0.3**	0.3	**1.0**	1.1
Portugal	**0.3**	0.2	**0.1**	0.1	**0.4**	0.3
Italy	**6.9**	7.7	**—**	0.2	**6.9**	7.9
Spain	**0.7**	0.6	**0.2**	0.2	**0.9**	0.8
Total	**8.6**	9.3	**0.6**	0.8	**9.2**	10.1

Included in our debt securities and other financial assets are exposures to peripheral European countries. All of these assets are valued on a mark-to-market basis under IAS 39, and therefore our statement of financial position and income statement already reflect any reduction in value between the date of purchase and the balance sheet date. The significant majority of these holdings are within our participating funds where the risk to our shareholders is governed by the nature and extent of our participation within those funds. The Group's direct sovereign exposure to Italy has reduced by £1.0 billion to £6.9 billion over the period primarily due to de-risking activity to protect the capital position against further adverse economic movements in the current market environment.

Other information

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Alternative Performance Measures

In order to fully explain the performance of our business, we discuss and analyse our results in terms of financial measures which include a number of Alternative Performance Measures (APMs). APMs are non-GAAP measures which are used to supplement the disclosures prepared in accordance with other regulations such as International Financial Reporting Standards (IFRS) and Solvency II. We believe these measures provide useful information to enhance the understanding of our financial performance. However, APMs should be viewed as complementary to, rather than as a substitute for, the amounts determined according to other regulations.

The APMs utilised by Aviva may not be the same as those used by other insurers and may change over time.

At 30 June 2020, we have removed the operating expenses APM, having disclosed this metric alongside controllable costs at 31 December 2019. The controllable costs metric aligns to our capital markets day target announced in November 2019 and excludes premium based taxes, fees and levies that vary directly with premium volumes. Therefore controllable costs is considered more representative of operational expenses that are controllable by management and is considered more useful and relevant than the operating expenses metric. Other than the removal of the operating expenses APM, there are no changes to existing APMs and no new APMs introduced in 2020.

Further details on APMs derived from IFRS measures and APMs derived from solvency II measures, are provided in the following sections. A further section describes Other APMs.

APMs derived from IFRS measures

A number of APMs relating to IFRS are utilised to measure and monitor the Group's performance. Definitions and additional information, including reconciliations to the relevant amounts in the IFRS Financial Statements and, where appropriate, commentary on the material reconciling items are included within this section.

Group adjusted operating profit‡#

Group adjusted operating profit is an APM that supports decision making and internal performance management of the Group's operating segments that incorporates an expected return on investments supporting the life and non-life insurance businesses. The Group considers this measure meaningful to stakeholders as it enhances the understanding of the Group's operating performance over time by separately identifying non-operating items. The various items excluded from Group adjusted operating profit, but included in IFRS profit before tax, are:

Investment variances, economic assumption changes and short-term fluctuation in return on investments

Group adjusted operating profit for the life insurance business is based on expected investment returns on financial investments backing shareholder and policyholder funds over the reporting period, with allowance for the corresponding expected movements in liabilities. The expected rate of return is determined using consistent assumptions between operations, having regard to local economic and market forecasts of investment return and asset classification.

For fixed interest securities classified as fair value through profit or loss, the expected investment returns are based on average prospective yields for the actual assets held less an adjustment for credit risk. Where such securities are classified as available for sale the expected return comprises interest or dividend payments and amortisation of the premium or discount at purchase. The expected return on equities and properties is calculated by reference to the opening 10-year swap rate in the relevant currency plus an appropriate risk margin.

Group adjusted operating profit includes the effect of variances in experience for non-economic items, such as mortality, persistency and expenses, and the effect of changes in non-economic assumptions. Changes due to economic items, such as market value movement and interest rate changes, which give rise to variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside Group adjusted operating profit.

Group adjusted operating profit for the non-life insurance business is based on expected investment returns on financial investments backing shareholder funds over the period. Expected investment returns are calculated for equities and properties by multiplying the opening market value of the investments, adjusted for sales and purchases during the year, by the long-term rate of return. This rate of return is the same as that applied for the long-term business expected returns. The long-term return for other investments (including debt securities) is the actual income receivable for the period. Actual income and long-term investment return both contain the amortisation of the discounts/premium arising on the acquisition of fixed income securities.

Changes due to market value movements and interest rate changes, which give rise to variances between actual and expected investment returns, are disclosed separately outside Group adjusted operating profit. The impact of changes in the discount rate applied to claims provisions is also disclosed outside Group adjusted operating profit.

The exclusion of short-term investment variances from this APM reflects the long-term nature of much of our business. The Group adjusted operating profit which is used in managing the performance of our operating segments excludes the impact of economic variances, to provide a comparable measure year on year.

Impairment, amortisation and profit or loss on disposal

Group adjusted operating profit also excludes impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangible assets acquired in business combinations; amortisation and impairment of acquired value of in-force business; and the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates. These items principally relate to merger and acquisition activity which we view as strategic in nature, hence they are excluded from the Group adjusted operating profit APM as this is principally used to manage the performance of our operating segments when reporting to the Group chief operating decision maker.

On 31 December 2019, the Group adjusted operating profit APM was amended to include amortisation and impairment of internally generated intangible assets to provide more relevant information by better reflecting their operational nature. These assets include advisor platforms, digital distribution channels and claims and policy administration systems which are used to support operational activities. Comparative amounts have been restated resulting in a reduction in the Group adjusted operating profit for the six month period ending 30 June 2019 of £62 million. Amortisation and impairment of intangible assets acquired in business combinations continues to be excluded from the Group adjusted operating profit as these relate to merger and acquisition activity.

Other items

These items are, in the Directors' view, required to be separately disclosed by virtue of their nature or incidence to enable a full understanding of the Group's financial performance. There are no other items to disclose at 30 June 2020.

Other items in 2019 comprised:

- A charge of £45 million relating to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims. Consistent with the presentation of the change in the Ogden discount rate in 2016 and 2018, this is disclosed outside of Group adjusted operating profit; and
- A charge of £2 million relating to the negative goodwill which arose on the acquisition of Friends First in 2018, which is excluded from Group adjusted operating profit for consistency with the treatment of impairment of goodwill.

The Group adjusted operating profit APM should be viewed as complementary to IFRS measures. It is important to consider Group adjusted operating profit and profit before tax together to understand the performance of the business in the period.

The table below presents a reconciliation between our consolidated operating profit and profit before tax attributable to shareholders' profits.

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m
United Kingdom – Life[2]	**817**	752	1,920
United Kingdom – General Insurance	**(66)**	141	250
Canada	**129**	89	191
Europe	**471**	495	981
Asia	**140**	151	275
Aviva Investors	**35**	60	96
Other Group activities[2]	**(301)**	(302)	(529)
Group adjusted operating profit before tax attributable to shareholders' profit	**1,225**	1,386	3,184
Adjusted for the following:			
Investment return variances and economic assumption changes on long-term business	**305**	372	654
Short-term fluctuation in return on investments on non-long-term business	**(171)**	145	167
Economic assumption changes on general insurance and health business	**(45)**	(73)	(54)
Impairment of goodwill, associates and joint ventures and other amounts expensed	**(17)**	(11)	(15)
Amortisation and impairment of intangibles acquired in business combinations	**(44)**	(45)	(87)
Amortisation and impairment of acquired value of in-force business	**(165)**	(191)	(406)
Loss on the disposal and re-measurement of subsidiaries, joint ventures and associates	**(12)**	(13)	(22)
Other	**—**	(47)	(47)
Adjusting items before tax	**(149)**	137	190
Profit before tax attributable to shareholders' profits	**1,076**	1,523	3,374

1 On 31 December 2019, the Group adjusted operating profit APM, was revised, and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets (see note B2). Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in a reduction in the prior period Group adjusted operating profit of £62 million. There is no impact on profit before tax attributable to shareholders' profit.

2 Following a review of the presentation of intercompany loan interest, comparative amounts have been amended to reclassify net interest expense from United Kingdom – Life to Other Group activities, of £32 million for the 6 month period ended June 2019 and £65 million for the year ended 31 December 2019. The change has no impact on the Group's operating profit before tax attributable to shareholders' profit or profit before tax attributable to shareholders' profit.

Combined operating ratio (COR)‡

A financial measure of general insurance underwriting profitability calculated as total underwriting costs in our insurance entities expressed as a percentage of net earned premiums. A COR below 100% indicates profitable underwriting.

In 2019, the COR did not include the impact of any changes in the discount rate used for estimating lump sum payments in settlement of bodily injury claims.

On 31 December 2019, following the change in the definition of Group adjusted operating profit, the COR has been amended to include the amortisation and impairment of internally generated intangible assets to better reflect their operational nature. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in the first half year of 2019 underwriting costs of £40 million and an increase in COR of 0.9%. Amortisation and impairment of intangible assets acquired in business combinations will continue to be excluded from the COR as these relate to merger and acquisition activity.

The Group COR is shown below.

	6 months 2020 £m	Restated[1] 6 months 2019 £m	Full year 2019 £m
Incurred claims – GI & Health (as per B6)[2]	**(3,377)**	(3,334)	(6,620)
Adjusted for the following:			
Incurred claims – Health	**273**	326	651
Change in discount rate assumptions	**45**	73	54
Impact of change in the discount rate used in settlement of bodily injury claims	**—**	45	45
Total Incurred claims (included in COR)[3]	**(3,059)**	(2,890)	(5,870)
Commission and expenses – GI & Health (as per B6)[4]	**(1,768)**	(1,653)	(3,321)
Adjusted for the following:			
Amortisation and impairment of intangibles acquired in business combinations	**8**	(2)	19
Foreign exchange gains/(losses)	**55**	4	(45)
Commission income	**9**	8	20
Other	**7**	1	5
Commission and Expenses – Health & Other Non GI	**143**	150	300
Total commission and expenses (included in COR)[5]	**(1,546)**	(1,492)	(3,022)
Total underwriting costs	**(4,605)**	(4,382)	(8,892)
Net earned premiums – GI & Health (as per B6)	**5,017**	4,973	10,015
Adjusted for:			
Net earned premiums – Health	**(403)**	(441)	(895)
Net earned premiums (included in COR)	**4,614**	4,532	9,120
Combined operating ratio	**99.8%**	96.8%	97.5%

1 Following the change in the definition of Group adjusted operating profit on 31 December 2019, COR now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in the prior period underwriting costs of £(40) million and an increase in COR of 0.9%.
2 Corresponds to the sum of claims and benefits paid, net of recoveries from reinsurers and the change in insurance liabilities, net of reinsurance per note B6.
3 Includes £(2) million *(HY19: £(6) million, 2019: £(6) million)* relating to incurred claims for Aviva Re.
4 Commission and expenses consists of fee and commission expense and other operating expenses included within the general insurance & health segmental income statement (per note B6) adjusted to an earned basis and to remove the health business.
5 Includes £(1) million *(HY19: £nil million, 2019: £(1) million)* relating to commission and expenses for Aviva Re.

Claims ratio

A financial measure of the performance of our general insurance business which is calculated as incurred claims expressed as a percentage of net earned premiums, which can be derived from the COR table above.

Commission and expense ratio

A financial measure of the performance of our general insurance business which is derived from the sum of earned commissions and expenses expressed as a percentage of net earned premiums from the COR table above.

Operating earnings per share (EPS) ‡#

Operating EPS is calculated based on the Group adjusted operating profit attributable to ordinary shareholders net of tax, deducting non-controlling interests, preference dividends and the direct capital instrument (DCI) and tier 1 note coupons divided by the weighted average number of ordinary shares in issue, after deducting treasury shares. Operating EPS is considered meaningful to stakeholders because it enhances the understanding of the Group's operating performance over time by adjusting for the effects of non-operating items.

Following the change in the definition of the Group adjusted operating profit APM on 31 December 2019, operating EPS has been amended and the comparative amount for the 6 month period ended 30 June 2019 has been restated resulting in a reduction in the prior period from 27.3 pence to 26.1 pence.

A reconciliation between operating EPS and basic EPS can be found in note B8.

Controllable costs‡

Controllable costs are the controllable operational overheads associated with maintaining our businesses. These predominantly consist of staff costs, central costs, property and IT related costs and other expenses. Controllable costs also include indirect acquisition costs, such as underwriting overheads, and claims handling costs. These are considered to be controllable by the operating segments.

Controllable costs exclude impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangible assets acquired in business combinations; amortisation and impairment of acquired value of in-force business; and the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates. These items relate to merger and acquisition activity which we view as strategic in nature, hence they are excluded from controllable costs which is principally used to manage the performance of our operating segments.

Controllable costs exclude costs in relation to product governance and mis-selling. These costs represent compensation and redress payments made to policyholders and are excluded from controllable costs because they have characteristics of claims payments. In 2019 these costs included a £175 million provision in our UK Life business relating to past communications to a specific sub-set of pension policyholders that may not have adequately informed them of switching options into with-profits funds that were available to them.

Controllable costs exclude premium based taxes, fees and levies that vary directly with premiums. These costs are by their nature a direct cost incurred as a result of generating premium income, and therefore not a controllable operational overhead.

Controllable costs also excludes other amounts that, in management's view, are not representative of underlying day-to-day expenses involved in running the business, and that would distort the year on year controllable costs trend such as GI instalment income.

Following the change in the definition of Group adjusted operating profit on 31 December 2019, controllable costs now include the amortisation and impairment of internally generated intangible assets to better reflect their operational nature. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in controllable costs of £62 million. Amortisation and impairment of intangible assets acquired in business combinations will continue to be excluded from operating expenses as these relate to merger and acquisition activity.

In addition, following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £41 million for the 6 month period ended 30 June 2019 and £83 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to the Life & Health businesses from the UK, Ireland and Poland in controllable costs.

A reconciliation of other expenses in the IFRS consolidated income statement to controllable costs is set out below:

	6 months 2020 £m	Restated[1,2] 6 months 2019 £m	Restated[2] full year 2019 £m
Other expenses (IFRS income statement)	**1,643**	1,552	3,329
Add: other acquisition costs	**507**	505	1,001
Add: claims handling costs[2]	**201**	211	422
Less: impairment of goodwill, associates and joint ventures and other amounts expensed	**(17)**	(2)	(6)
Less: amortisation and impairment of intangibles acquired in business combinations[1]	**(41)**	(42)	(82)
Less: amortisation and impairment of acquired value of in-force business	**(165)**	(191)	(406)
Less: foreign exchange (losses)/gains	**(138)**	(9)	109
Less: product governance and mis-selling costs[3]	**(16)**	(11)	(225)
Less: premium based income taxes, fees and levies	**(103)**	(101)	(180)
Add: other costs	**41**	54	60
Controllable costs	**1,912**	1,966	4,022

1 Following the change in the definition of Group adjusted operating profit on 31 December 2019, controllable costs now include the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets. Comparative amounts for the 6 month period ended 30 June 2019 have been restated resulting in an increase in the prior period controllable costs of £62 million.
2 Following a review of the presentation of claims handling costs, to achieve consistency in our reporting, comparative amounts have been restated by £41 million for the 6 month period ended 30 June 2019 and £83 million for the year ended 31 December 2019 to include previously excluded claims handling costs attributable to the Life & Health businesses from the UK, Ireland and Poland in controllable costs.
3 Product governance and mis-selling costs, previously included within other costs, have been presented as a discrete item in the reconciliation in order to improve transparency.

At 30 June 2020, we have removed the operating expenses APM, having disclosed this metric alongside controllable costs at 31 December 2019. The controllable costs metric aligns to our capital markets day target announced in November 2019 and excludes premium based taxes, fees and levies that vary directly with premium volumes. Therefore, controllable costs is considered more representative of operational expenses that are controllable by management and is considered more useful and relevant than the operating expenses metric.

IFRS Return on Equity (RoE)
The IFRS RoE calculation is based on Group adjusted operating profit after tax attributable to ordinary shareholders expressed as a percentage of weighted average ordinary shareholders' equity (excluding non-controlling interests, preference share capital and direct capital instrument and tier 1 notes) as shown in note A15.

Following the change in the definition of the Group adjusted operating profit APM on 31 December 2019, IFRS RoE has been amended and the comparative amount for the 6 month period ended 30 June 2019 has been restated resulting in a reduction in the prior year from 12.1% to 11.6%.

IFRS net asset value (NAV) per share
IFRS NAV per share is calculated as the equity attributable to shareholders of Aviva plc, less preference share capital (both within the consolidated statement of financial position), divided by the actual number of shares in issue at the balance sheet date. IFRS NAV per share monitors the value generated by the Group in terms of the equity shareholders' face value per share investment.

Assets Under Management (AUM) and Assets Under Administration (AUA)
AUM represent all assets managed or administered by or on behalf of the Group, including those assets managed by Aviva Investors and by third parties. AUM include managed assets that are reported within the Group's statement of financial position and those assets belonging to external clients outside the Aviva Group which are therefore not included in the Group's statement of financial position.

Consistent with previous years, Aviva Investors AUA comprises AUM plus £36 billion *(2019: £36 billion)* of assets managed by third parties on platforms administered by Aviva Investors.

Both AUM and AUA are monitored as they reflect the potential earnings arising from investment returns and fee and commission income and measure the size and scale of the Group's fund management business.

A reconciliation of amounts appearing in the Group's statement of financial position to AUM is shown below:

	30 June 2020 £bn	30 June 2019 £bn	31 December 2019 £bn
Assets managed on behalf of Group companies			
Assets included in statement of financial position[1]			
Financial investments	**361**	351	351
Investment properties	**11**	11	11
Loans	**40**	39	39
Cash and cash equivalents	**20**	16	20
Other	**4**	2	1
	436	419	422
Less: third party funds and UK Platform included above	**(24)**	(18)	(17)
	412	401	405
Assets managed on behalf of third parties[2]			
Aviva Investors	**72**	65	67
UK Platform[3]	**30**	26	29
Other	**8**	9	9
	110	100	105
Total AUM[4]	**522**	501	510

1 Includes assets classified as held for sale.
2 AUM managed on behalf of third parties cannot be directly reconciled to the financial statements.
3 UK Platform relates to the assets under management in the UK long-term savings business.
4 Includes AUM of £355 billion *(HY19: £346 billion, 2019: £346 billion)* managed by Aviva Investors.

Net fund flows
Net fund flows is one of the measures of growth used by management and is a component of the movement in the life and platform business managed assets (excluding UK with-profits) during the period. It is the difference between the inflows (being IFRS net written premiums plus deposits received under investment contracts) and outflows (being IFRS net paid claims plus redemptions and surrenders under investment contracts). It excludes market and other movements.

APMs derived from Solvency II measures

The Solvency II regime requires insurers to hold own funds in excess of the Solvency Capital Requirement (SCR). Own funds are available capital resources determined under Solvency II. This includes the excess of assets over liabilities in the Solvency II balance sheet, calculated on best estimate, market consistent assumptions and include transitional measures on technical provisions (TMTP), subordinated liabilities that qualify as capital under Solvency II, and off-balance sheet own funds.

The SCR is calculated at Group level using a risk-based capital model which is calibrated to reflect the cost of mitigating the risk of insolvency to a 99.5% confidence level over a one-year time horizon – equivalent to a 1 in 200 year event – against financial and non-financial shocks. As a number of subsidiaries utilise the standard formula rather than a risk-based capital model to assess capital requirements, the overall Group SCR is calculated using a partial internal model, and it is shown after the impact of diversification benefit.

The reconciliation from total Group equity on an IFRS basis to Solvency II regulatory own funds is presented below.

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Total Group equity on an IFRS basis	**19,788**	18,850	18,685
Elimination of goodwill and other intangible assets[1]	**(8,283)**	(7,884)	(8,424)
Insurance assets and liabilities valuation differences (net of transitional deductions)[2]	**18,363**	19,513	19,564
Inclusion of risk margin (net of transitional deductions)	**(4,196)**	(3,325)	(3,122)
Net deferred tax on valuation of differences[3]	**(910)**	(1,149)	(1,220)
Revaluation of subordinated liabilities[4]	**(859)**	(760)	(716)
Other accounting differences[4]	**53**	40	(99)
Estimated Solvency II net assets (gross of non-controlling interests)	**23,956**	25,285	24,668
Difference between Solvency II net assets and own funds[5]	**4,420**	2,712	3,679
Estimated Solvency II regulatory own funds[6]	**28,376**	27,997	28,347

1 Includes £1,850 million *(HY19: £1,871 million; 2019: £1,855 million)* of goodwill and £6,433 million *(HY19: £6,013 million; 2019: £6,569 million)* of other intangible assets comprising acquired value of in-force business of £2,299 million *(HY19: £2,706 million; 2019: £2,479 million)*, deferred acquisition costs (net of deferred income) of £3,337 million *(HY19: £ 3,089 million; 2019: £3,221 million)* and other intangibles of £797 million *(HY19: £218 million; 2019: £869 million)*.
2 Includes valuation adjustments to reflect insurance assets and liabilities valued on a best estimate basis using market-implied assumptions.
3 Net deferred tax includes the tax effect of all other reconciling items in the table above which are shown gross of tax.
4 Includes valuation adjustments and the impact of the difference between consolidation methodologies under Solvency II and IFRS.
5 Regulatory adjustments to bridge from Solvency II net assets to own funds include recognition of subordinated debt capital, non-controlling interests and adjustments for ring-fenced funds restrictions.
6 At 31 December 2019, regulation was introduced in France that allows French insurers to place the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At this date, PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory own funds subject to confirmation of the appropriate treatment at a Group level. The treatment has since been confirmed and PPE is included in the estimated Group regulatory own funds at 30 June 2020.

A number of APMs relating to Solvency II are utilised to measure and monitor the Group's performance, growth and financial strength:

- Solvency II shareholder cover ratio‡
- Value of new business on an adjusted Solvency II basis (VNB)‡
- Operating Capital Generation (OCG)‡#
- Operating own funds generation
- Solvency II return on equity (ROE)‡
- Solvency II net asset value (NAV) per share‡
- Solvency II debt leverage ratio

Solvency II shareholder cover ratio‡

The estimated Solvency II shareholder cover ratio, which is derived from own funds divided by the SCR using a 'shareholder view', is one of the indicators of the Group's balance sheet strength. The shareholder view is considered by management to be more representative of the shareholders' risk-exposure and the Group's ability to cover the SCR with eligible own funds and aligns with management's approach to dynamically manage its capital position.

In arriving at the shareholder position, the following adjustments are typically made to the regulatory Solvency II position:

- The contribution to the Group's SCR and own funds of the most material fully ring fenced with-profits funds and staff pension schemes in surplus are excluded. These exclusions have no impact on Solvency II surplus as these funds are self-supporting on a Solvency II capital basis with any surplus capital above SCR not recognised.
- A notional reset of the transitional measure on technical provisions (TMTP), calculated using the same method as used for formal TMTP resets. This presentation avoids step changes to the Solvency II position that arise only when the formal TMTP reset points are triggered. The 30 June 2020 Solvency II position includes a notional reset while the 31 December 2019 Solvency II position included a formal, rather than notional, reset of the TMTP in line with the regulatory requirement to reset the TMTP at least every two years and hence no adjustment was required.
- A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory and shareholder own funds, subject to confirmation of the appropriate treatment at Group level. The treatment has since been confirmed and PPE is now included within Group regulatory own funds but remains excluded from the shareholder position.
- Pro forma adjustments are made if the Solvency II shareholder cover ratio does not fully reflect the impact of transactions, capital actions or significant events that are known as at each reporting date. Such adjustments may be required in respect of planned acquisitions and disposals, group reorganisations and adjustments to the Solvency II valuation basis arising from significant uncertainty from events known at the reporting date or changes to the underlying regulations or updated interpretations provided by EIOPA. These adjustments are made in order to show a more representative view of the Group's solvency position.

A reconciliation of the Solvency II regulatory surplus to the Solvency II shareholder surplus is provided below:

30 June 2020	**Own funds £m**	**SCR £m**	**Surplus £m**
Estimated Solvency II regulatory surplus	**28,376**	**(16,039)**	**12,337**
Adjustments for:			
Fully ring-fenced with-profit funds	**(2,430)**	**2,430**	**—**
Staff pension schemes in surplus	**(1,085)**	**1,085**	**—**
PPE[1]	**(369)**	**—**	**(369)**
Notional reset of TMTP	**211**	**—**	**211**
Pro forma adjustments[2]	**(77)**	**(150)**	**(227)**
Estimated Solvency II shareholder surplus	**24,626**	**(12,674)**	**11,952**

1 Regulation was introduced in France that allows French insurers to place the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. PPE is included in the estimated Group regulatory own funds at 30 June 2020.
2 The 30 June 2020 Solvency II position includes the following pro forma adjustments: the disposals of Friends Provident International Limited (FPI), Hong Kong and Indonesia (total impact of £0.1 billion increase in surplus), the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR), and an allowance for potential future bond credit rating downgrades as a result of the COVID-19 pandemic (£0.1 billion decrease in surplus as a result of an increase in SCR).

Alternative Performance Measures continued

30 June 2019	Own funds £m	SCR £m	Surplus £m
Estimated Solvency II regulatory surplus	27,997	(16,228)	11,769
Adjustments for:			
Fully ring-fenced with-profit funds	(2,630)	2,630	—
Staff pension schemes in surplus	(1,078)	1,078	—
Notional reset of TMTP	208	—	208
Pro forma adjustments [1]	(133)	(23)	(156)
Estimated Solvency II shareholder surplus	24,364	(12,543)	11,821

1 The 30 June 2019 Solvency II position includes the pro forma impact of the disposals of FPI (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion reduction in surplus as a result of an increase in SCR).

31 December 2019	Own funds £m	SCR £m	Surplus £m
Estimated Solvency II regulatory surplus[1]	28,347	(15,517)	12,830
Adjustments for:			
Fully ring-fenced with-profit funds	(2,501)	2,501	—
Staff pension schemes in surplus	(1,181)	1,181	—
Notional reset of TMTP	—	—	—
Pro forma adjustments[2]	(117)	(75)	(192)
Estimated Solvency II shareholder surplus	24,548	(11,910)	12,638

1 Regulation was introduced in France that allows French insurers to place the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory own funds subject to confirmation of the appropriate treatment at Group level.
2 The 31 December 2019 Solvency II position includes three pro forma adjustments that relate to the disposal of FPI (£nil impact on surplus), the disposal of Hong Kong (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR).

A summary of the shareholder view of the Group's Solvency II position is shown in the table below:

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Own Funds	**24,626**	24,364	24,548
Solvency Capital Requirement	**(12,674)**	(12,543)	(11,910)
Estimated Solvency II Shareholder Surplus at 30 June/31 December	**11,952**	11,821	12,638
Estimated Shareholder Cover Ratio	**194%**	194%	206%

Value of new business on an adjusted Solvency II basis (VNB)‡

VNB measures the additional value to shareholders created through the writing of new life business in the period. It reflects Solvency II assumptions and allowance for risk, and is defined as the increase in Solvency II own funds resulting from life business written in the period, including the impact of interactions between in-force and new business, adjusted to:

- remove the impact of the contract boundary restrictions under Solvency II;
- include businesses which are not within the scope of Solvency II own funds (e.g. UK and Asia Healthcare, Retail fund management and UK equity release); and
- reflect a gross of tax and non-controlling interests basis, include the impact of 'look through profits' in service companies (where not included in Solvency II), reflect the difference between locally applicable capital requirements for the smaller Asian markets (Indonesia, Vietnam, Hong Kong) and the value of new business on an adjusted Solvency II basis, and reflect the assumed take up of tax-free lump sum payments at retirement (not included in Solvency II Own Funds) on bulk purchase annuities (BPAs).

A reconciliation between VNB and the Solvency II own funds impactof new business is provided below:

6 months 2020	**UK Life and IS&R £m**	**Europe £m**	**Asia £m**	**Group £m**
VNB (gross of tax and non-controlling interests)	**323**	**188**	**90**	**601**
Solvency II contract boundary restrictions – new business	**(44)**	**(70)**	**(18)**	**(132)**
Solvency II contract boundary restrictions – increments/renewals on in-force business	**67**	**48**	**9**	**124**
Businesses which are not in the scope of Solvency II own funds	**(59)**	**—**	**(2)**	**(61)**
Tax and Other[1]	**(62)**	**(79)**	**(30)**	**(171)**
Solvency II own funds impact of new business (net of tax and non-controlling interests)	**225**	**87**	**49**	**361**

6 month 2019 restated[1]	UK Life and IS&R £m	Europe £m	Asia £m	Group £m
VNB (gross of tax and non-controlling interests)	202	237	96	535
Solvency II contract boundary restrictions – new business	(23)	(64)	(16)	(103)
Solvency II contract boundary restrictions – increments/renewals on in-force business	68	39	9	116
Businesses which are not in the scope of Solvency II own funds	(66)	—	(8)	(74)
Tax and Other[1]	(51)	(96)	(22)	(169)
Solvency II own funds impact of new business (net of tax and non-controlling interests)	130	116	59	305

Full year 2019	UK Life and IS&R £m	Europe £m	Asia £m	Group £m
VNB (gross of tax and non-controlling interests)	604	414	206	1,224
Solvency II contract boundary restrictions – new business	(71)	(148)	(45)	(264)
Solvency II contract boundary restrictions – increments/renewals on in-force business	98	73	25	196
Businesses which are not in the scope of Solvency II own funds	(150)	(1)	(7)	(158)
Tax and Other[1]	(100)	(171)	(68)	(339)
Solvency II own funds impact of new business (net of tax and non-controlling interests)	381	167	111	659

1 Other includes the impact of 'look through profits' in service companies (where not included in Solvency II) of £(37) million *(HY19: £(29) million, 2019: £(78) million)*, the reduction in value when moving to a net of non-controlling interests basis of £(20) million *(HY19: £(37) million, 2019: £(57) million)*, the difference between locally applicable capital requirements for the smaller Asian markets (Indonesia, Vietnam, Hong Kong) and the value of new business on an adjusted Solvency II basis of £(17) million *(HY19 restated: £(7) million, 2019: £(37) million)*, and the assumed take up of tax-free lump sum payments at retirement (not included in Solvency II Own Funds) on BPAs of £(3) million *(HY19: nil, 2019: nil)*

The methodology underlying the calculation of VNB remains unchanged from the prior year. VNB is calculated using economic assumptions as at the point of sale, taken as those appropriate to the start of each quarter. For contracts that are repriced more frequently, weekly or monthly economic assumptions have been used. The economic assumptions follow Solvency II rules for risk-free rates, volatility adjustment and matching adjustment. The operating assumptions are consistent with the Solvency II balance sheet, when these assumptions are updated, the year-to-date VNB will capture the impact of the assumption change on all business sold that year.

Matching Adjustment (MA)

A MA is applied to certain obligations based on the expected allocation of assets backing new business at each year-end date. This allocation may be different to the MA applied at the portfolio level. Aviva applies a MA to certain obligations in UK Life, using methodology which is set out in the Solvency and Financial Condition Report.

The MA for UK new business written in the period to 30 June 2020 (where applicable) was 112 bps (*HY19: 96 bps, 2019: 95 bps*).

New business margin

New business margin is calculated as value of new business on an adjusted Solvency II basis (VNB) divided by the present value of new business premiums (PVNBP) and expressed as a percentage.

Present value of new business premiums (PVNBP)

PVNBP measures sales in the Group's life insurance business. PVNBP is derived from the present value of new regular premiums expected to be received over the term of the new contracts plus 100% of single premiums from new business written in the financial period and is expressed at the point of sale. The discounted value of regular premiums is calculated using the same methodology as for VNB. PVNBP also includes any changes to existing contracts which were not anticipated at the outset of the contract that generate additional shareholder risk and associated premium income of the nature of a new policy.

The table below presents a reconciliation of sales to IFRS net written premiums:

	6 months 2020 £m	6 months 2019 £m	Full Year 2019 £m
Present value of new business premiums	**21,214**	21,291	45,665
Investment sales	**3,558**	1,986	4,621
General insurance and health net written premiums	**5,216**	5,246	10,224
Long-term health and collectives business	**(1,918)**	(1,678)	(3,563)
Total sales	**28,070**	26,845	56,947
Effect of capitalisation factor on regular premium long-term business[1]	**(7,165)**	(7,413)	(15,294)
JVs and associates[2]	**(144)**	(159)	(286)
Annualisation impact of regular premium long-term business[3]	**(209)**	(332)	(327)
Deposits[4]	**(4,710)**	(4,899)	(10,917)
Investment sales[5]	**(3,558)**	(1,986)	(4,621)
IFRS gross written premiums from existing long-term business[6]	**2,613**	2,839	5,057
Long-term insurance and savings business premiums ceded to reinsurers	**(1,673)**	(1,126)	(2,879)
Total IFRS net written premiums	**13,224**	13,769	27,680
Analysed as:			
Long-term insurance and savings net written premiums	**8,008**	8,523	17,456
General insurance and health net written premiums	**5,216**	5,246	10,224
	13,224	13,769	27,680

1 Discounted value of regular premiums expected to be received over the term of the new contract, adjusted for expected levels of persistency.
2 Total long-term new business sales include our share of sales from joint ventures and associates. Under IFRS, premiums from these sales are excluded.
3 The impact of annualisation is removed in order to reconcile the non-GAAP new business sales to IFRS premiums.
4 Under IFRS, only the margin earned from non-participating investment contracts is recognised in the IFRS income statement.
5 Investment sales included in total sales represent the cash inflows received from customers investing in mutual fund type products such as unit trusts and OEICs.
6 The non-GAAP measure of sales focuses on new business written in the period under review while the IFRS income statement includes premiums received from all business, both new and existing.

Operating capital generation (OCG)‡#

OCG measures the amount of Solvency II capital the Group generates from operating activities and incorporates an expected return on investments supporting the life and non-life insurance businesses. The Group considers this measure meaningful to stakeholders as it enhances the understanding of the Group's operating performance over time by separately identifying non-operating items. The calculation of OCG is consistent with previous periods.

The expected investment returns assumed within OCG are consistent with the returns used for Group adjusted operating profit.

OCG includes the effect of variances in experience for non-economic items, such as mortality, persistency and expenses, the effect of changes in non-economic assumptions (for example, longevity), model changes that are non-economic in nature and the impact of capital actions, for example, strategic changes in asset mix including changes in hedging exposure. Consistent with the Group adjusted operating profit APM, OCG is determined on start of period economic assumptions and therefore excludes economic variances and economic assumption changes.

An analysis of the components of OCG is presented below, including an analysis of Solvency II operating own funds generation which is the own funds component of OCG (see the section below):

	6 months 2020 £m	6 months 2019 £m	Full Year 2019 £m
Solvency II own funds impact of new business (net of tax and non-controlling interests)	**361**	305	659
Operating own funds generation from life existing business	**235**	173	507
Operating own funds generation from non-life	**127**	228	431
Operating own funds generation from other[1]	**53**	297	944
Group debt costs	**(144)**	(139)	(284)
Solvency II operating own funds generation	**632**	864	2,257
Solvency II operating SCR impact	**258**	(84)	2
Solvency II OCG	**890**	780	2,259

1 Other includes the impact of capital actions and non-economic assumption changes.

OCG is a key component of the movement in Solvency II shareholder surplus. The tables below provide an analysis of the change in Solvency II shareholder surplus.

Shareholder view – 6 months 2020	Own funds £m	SCR £m	Surplus £m
Group Solvency II shareholder surplus at 1 January	24,548	(11,910)	12,638
Opening restatements[1]	78	(202)	(124)
Operating capital generation	632	258	890
Non-operating capital generation	(671)	(823)	(1,494)
Dividends[2]	(19)	—	(19)
Acquired/divested business	58	3	61
Estimated Solvency II shareholder surplus at 30 June	24,626	(12,674)	11,952

1 Opening restatements allows for differences between the shareholder view presented in the 2019 preliminary announcement and the 2019 SFCR.
2 Dividends includes £9 million of Aviva plc preference dividends and £10 million of General Accident plc preference dividends.

Alternative Performance Measures continued

Shareholder view – 6 months 2019	Own funds £m	SCR £m	Surplus £m
Group Solvency II shareholder surplus at 1 January	23,551	(11,569)	11,982
Opening Restatements[1]	58	6	64
Operating capital generation	864	(84)	780
Non-operating capital generation	722	(896)	(174)
Dividends[2]	(831)	—	(831)
Share buy-back	—	—	—
Hybrid debt repayments	—	—	—
Acquired/divested business	—	—	—
Estimated Solvency II shareholder surplus at 30 June	24,364	(12,543)	11,821

1 Opening restatements allows for differences between the shareholder view presented in the 2018 preliminary announcement and the 2018 SFCR.
2 Dividends includes £9 million of Aviva plc preference dividends and £10 million of General Accident plc preference dividends.

Shareholder view – Full Year 2019	Own funds £m	SCR £m	Surplus £m
Group Solvency II shareholder surplus at 1 January	23,551	(11,569)	11,982
Opening restatements[1]	58	6	64
Operating capital generation	2,257	2	2,259
Non-operating capital generation	120	(368)	(248)
Dividends[2]	(1,222)	—	(1,222)
Share buy-back	—	—	—
Hybrid debt repayments	(210)	—	(210)
Acquired/divested business	(6)	19	13
Estimated Solvency II shareholder surplus at 31 December	24,548	(11,910)	12,638

1 Opening restatements allows for differences between the shareholder view presented in the 2018 preliminary announcement and the 2018 SFCR.
2 Dividends includes £17 million of Aviva plc preference dividends and £21 million of General Accident plc preference dividends.

Operating own funds generation

Operating own funds generation measures the amount of Solvency II own funds generated from operating activities. Operating own funds generation is the own funds component of OCG and follows the methodology and assumptions outlined in OCG.

Solvency II Return on Equity (RoE)‡

Solvency II RoE is calculated as:

- Operating own funds generation less preference dividends, direct capital instrument (DCI) and tier 1 note coupons divided by;
- Opening value of unrestricted tier 1 shareholder own funds.

Unrestricted tier 1 shareholder own funds represents the highest quality tier of capital and includes instruments with principal loss absorbing features such as permanence, subordination, undated, absence of redemption incentives, mandatory costs and encumbrances. The tables below provide a summary of the Group's regulatory Solvency II own funds by tier and a reconciliation between unrestricted tier 1 regulatory own funds and unrestricted tier 1 shareholder own funds:

Regulatory view	**30 June 2020 £m**	30 June 2019 £m	31 December 2019 £m
Unrestricted regulatory tier 1 own funds	**20,096**	19,588	20,377
Restricted Tier 1	**1,335**	2,084	1,839
Tier 2	**6,569**	5,937	5,794
Tier 3[1]	**376**	388	337
Estimated Solvency II regulatory own funds[2]	**28,376**	27,997	28,347

1 Tier 3 regulatory own funds at 30 June 2019 consists of £269 million subordinated debt *(HY19: £268 million, 2019: £259 million)* plus £107 million net deferred tax assets *(HY19: £120 million, 2019: £78 million)*.
2 A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At December 2019 PPE was included in the France local regulatory own funds but was excluded from the estimated Group regulatory own funds, subject to confirmation of the appropriate treatment at Group level. The treatment has since been confirmed and PPE is now included within Group regulatory own funds

Shareholder view	**30 June 2020 £m**	30 June 2019 £m	31 December 2019 £m
Unrestricted regulatory tier 1 own funds	**20,096**	19,588	20,377
Adjustments for:			
Fully ring-fenced with-profit funds	**(2,430)**	(2,630)	(2,501)
Staff pension schemes in surplus	**(1,085)**	(1,078)	(1,181)
Notional reset of TMTP	**211**	208	—
PPE	**(369)**	—	—
Pro forma adjustments[1]	**(77)**	(134)	(117)
Unrestricted shareholder tier 1 own funds	**16,346**	15,954	16,578

1 The 30 June 2020 Solvency II position includes three pro forma adjustments. These relate to the disposals of Friends Provident International Limited (FPI), Hong Kong and Indonesia (total impact of £0.1 billion increase in surplus).

Solvency II RoE provides useful information as it is used as an economic value measure by the Group to assess growth and performance.

The Solvency II return on equity is shown below:

	6 months 2020 £m	6 months 2019 £m	Full year 2019 £m
Solvency II operating own funds generation	**632**	864	2,257
Less: Preference share dividends	**(19)**	(19)	(38)
Less: DCI and tier 1 note coupons	**(27)**	(6)	(34)
	586	839	2,185
Unrestricted tier 1 shareholder Solvency II own funds	**16,578**	15,296	15,296
Solvency II Return on Equity	**7.1%**	11.0%	14.3%

Solvency II return on capital (unlevered)

Solvency II return on capital (unlevered) is calculated as operating own funds generation excluding interest costs divided by opening shareholder Solvency II own funds. It is used as an economic value measure by business divisions to assess growth and performance.

Solvency II net asset value (NAV) per share‡

Solvency II NAV per share is used to monitor the value generated by the Group in terms of the equity shareholders' face value per share investment. This is calculated as the unrestricted tier 1 Solvency II shareholder own funds, divided by the actual number of shares in issue as at the balance sheet date. Consistent with Solvency II RoE, it is an economic value measure used by the Group to assess growth.

The Solvency II NAV per share is shown below:

	30 June 2020	30 June 2019	31 December 2019
Unrestricted tier 1 shareholder Solvency II own funds (£m)	**16,346**	15,954	16,578
Number of shares in issue (in millions)	**3,928**	3,917	3,921
Solvency II NAV per share	**416p**	407p	423p

Solvency II debt leverage ratio

Solvency II debt leverage ratio is calculated as Solvency II debt expressed as a percentage of Solvency II regulatory own funds plus senior debt and commercial paper. Solvency II debt includes subordinated debt and preference share capital. The Solvency II debt leverage ratio provides a measure of the Group's financial strength.

	30 June 2020 £m	30 June 2019 £m	31 December 2019 £m
Solvency II regulatory debt	**8,173**	8,289	7,892
Senior notes	**1,129**	1,110	1,052
Commercial paper	**365**	251	238
Direct capital instrument	**499**	—	—
Total Solvency II debt	**10,166**	9,650	9,182
Estimated Solvency II regulatory own funds, senior debt and commercial paper	**30,369**	29,358	29,637
Solvency II debt leverage	**33%**	33%	31%

A reconciliation from IFRS subordinated debt to Solvency II regulatory debt is provided below:

	6 months 2020 £m	6 months 2019 £m	Full Year 2019 £m
IFRS borrowings	**10,382**	9,234	9,067
Less: Borrowings not classified as Solvency II regulatory debt			
Senior notes	**(1,129)**	(1,110)	(1,052)
Commercial paper	**(365)**	(251)	(238)
Operational borrowings	**(1,560)**	(1,540)	(1,571)
IFRS subordinated debt	**7,328**	6,333	6,206
Revaluation of subordinated liabilities	**859**	760	716
Direct capital instrument	**(499)**	—	—
Other movements	**35**	15	20
Solvency II subordinated debt	**7,723**	7,108	6,942
Preference share capital, direct capital instrument and tier 1 notes	**450**	1,181	950
Solvency II regulatory debt	**8,173**	8,289	7,892

Other APMs

Cash remittances‡#

Cash paid by our operating businesses to the Group, comprised of dividends and interest on internal loans. Dividend payments by operating businesses may be subject to insurance regulations that restrict the amount that can be paid. The business monitors total cash remittances at a Group level and in each of its markets.

Cash remittances eliminate on consolidation and hence are not directly reconcilable to the Group's IFRS consolidated statement of cash flows.

Centre liquidity

Centre liquidity represents cash remitted by the business units to the Group centre less centre operating expenses and debt financing costs. It includes cash disposal proceeds and capital injections. This provides meaningful information because it shows the liquidity at the Group centre available to meet debt interest and central costs and to pay dividends to shareholders.

Excess centre cash flow

This represents the cash remitted by business units to the Group centre less central operating expenses and debt financing costs. Excess centre cash flow is a measure of the cash available to pay dividends, reduce debt or invest back into our business. Excess centre cash flow does not include cash movements such as disposal proceeds or capital injections.

These amounts eliminate on consolidation and hence are not directly reconcilable to the Group's IFRS consolidated statement of cash flows.

Annual Premium Equivalent (APE)

APE is a measure of sales in our life insurance business. APE is calculated as the sum of new regular premiums plus 10% of new single premiums written in the period. This provides useful information on sales and new business when considered alongside VNB.

Spread margin

The spread margin represents the return made on the Group's annuity and other non-linked business, based on the expected investment return, less amounts credited to policyholders. While not a key performance metric of the Group, the spread margin is a useful indicator of the expected investment return arising on this business.

Underwriting margin

The underwriting margin represents the release of reserves held to cover claims, surrenders and administrative expenses less the cost of actual claims and surrenders in the period.

Unit-linked margin

The unit-linked margin represents the annual management charges on unit linked business. This is an indicator of the return arising on this business.

Shareholder services

2020 financial year calendar

Ordinary second 2019 interim ex-dividend date	13 August 2020
Second 2019 Interim dividend record date	14 August 2020
Last day for Dividend Reinvestment Plan and currency election	3 September 2020
Second 2019 Interim dividend payment date[1]	24 September 2020
Full year results announcement[2]	4 March 2021

1 Please note that the ADR dividend payment date will be 30 September 2020.
2 This date is provisional and subject to change.

Update on ordinary dividends

On 8 April 2020 we announced that the Board of Directors had agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020. Subsequent to 30 June 2020, the directors declared a second interim dividend in respect of 2019 of 6.00 pence per ordinary share, recognising the strong capital and centre liquidity position, enhanced by receipt of proceeds from the sale of FPI.

Dividend payment options

Shareholders are able to receive their dividends in the following ways:

- Directly into a nominated UK bank account
- Directly into a nominated Eurozone bank account
- The Global Payment Service provided by our Registrar, Computershare Investor Services PLC (Computershare). This enables shareholders living outside of the Single Euro Payment Area to elect to receive their dividends or interest payments in a choice of over 125 international currencies
- The Dividend Reinvestment Plan enables eligible shareholders to reinvest their dividends in additional Aviva ordinary shares

You can find further details regarding these payment options at www.aviva.com/dividends and register your choice by contacting Computershare using the contact details opposite, online at www.aviva.com/online or by returning a dividend mandate form. You must register for one of these payment options to receive dividend payments from Aviva.

Manage your shareholding online

www.aviva.com/shareholders:
General information for shareholders

www.aviva.com/online:
You can access online services to:

- Change your address
- Change your payment options
- Switch to electronic communications
- View your shareholding
- View any outstanding payments

Annual General Meeting (AGM)

We held our Annual General Meeting (AGM) at the Company's Head Office at St Helen's, 1 Undershaft, in London on 26 May 2020. Considering the restrictions on public gatherings resulting from COVID-19, the AGM was convened with the minimum quorum of shareholders as stated in the Articles of Association.

You can view on our website at www.aviva.com/agm, the voting results for the 2020 AGM, including proxy votes and votes withheld, and a shareholder presentation from the Chairman and CEO on our community activities as part of supporting the COVID-19 efforts and hear the answers to pre-submitted shareholder questions.

Shareholder contacts:

Ordinary and preference shares – Contact:
For any queries regarding your shareholding, please contact Computershare:

- **By telephone:** 0371 495 0105
  We're open Monday to Friday, 8.30am to 5.30pm UK time, excluding public holidays. Please call +44 117 378 8361 if calling from outside the UK.
- **By email:** AvivaSHARES@computershare.co.uk
- **In writing:** Computershare Investor Services PLC, The Pavilions, Bridgwater Road, Bristol BS99 6ZZ

American Depositary Receipts (ADRs) – Contact:
For any queries regarding Aviva ADRs, please contact Citibank Shareholder Services (Citibank):

- **By telephone:** 1 877 248 4237 (1 877-CITI-ADR),
  We're open Monday to Friday, 8.30am to 5.30pm US Eastern Standard Time, excluding public holidays. Please call +1 781 575 4555 if you are calling from outside the US.
- **By email:** citibank@shareholders-online.com
- **In writing:** Citibank Shareholder Services, PO Box 43077, Providence, Rhode Island 02940-3077 USA

Group company secretary
Shareholders may contact the Group Company Secretary:

- **By email:** aviva.shareholders@aviva.com
- **In writing:** Kirstine Cooper, Group Company Secretary, St Helen's, 1 Undershaft, London EC3P 3DQ
- **By telephone:** +44 (0)20 7283 2000