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AVIVA

News Release

2 March 2022

Aviva plc 2021 Results Announcement*

Increased confidence - dividends up, targets up, substantial capital return

£4.75bn total capital return[1], meeting our commitment

Estimated c.40% increase in 2022 dividend per share to c.31.5p (based on illustrative share consolidation)[1,2,3]

Increased cumulative cash remittances target to >£5.4bn (2022-24)

Upgraded cost savings target of £750m gross of inflation (2018-24)[4]

Cash remittances[5,‡]	Total 2021 dividend	Adjusted operating profit[5,6,‡]	General Insurance GWP[5]	Life new business sales[5,7]
£1.66bn	22.05p	£1,634m	£8.8bn	£36.7bn
+22%	5%	(10)%	+6%	+23%
2020: £1.37bn	2020: 21.00p	2020: £1,806m	2020: £8.3bn	2020: £29.9bn

Amanda Blanc, Group Chief Executive Officer, said:

"2021 was a year of significant strategic progress, right across Aviva. We successfully completed the sale of eight non-core businesses, generating excellent value for our shareholders. Our financial position is strengthened and Aviva is now a much simpler, leaner business, focused on our core markets in the UK, Ireland and Canada.

Today we are announcing a total capital return to shareholders of £4.75bn[1], including the existing £1bn share buyback, delivering on our promise to shareholders by returning more than £4bn. We are confident in the future and are setting out plans for further investment to enhance our capabilities and accelerate growth, starting with the acquisition of Succession Wealth, a leading national financial advice firm, which we have announced today.

Our people are central to our success, and it's only right that they share in the value they've helped create. So we are giving each of our 22,000 employees £1,000 in Aviva shares, to say thank you.

The Focus and Strengthen parts of our strategy are complete and we are now wholly focused on accelerating performance. Our trading in 2021 was strong, reinforcing our confidence that Aviva can grow sustainably. Our general insurance volumes are the highest in over a decade, life insurance sales[7] grew by 23%, and we are on track to reduce controllable costs[4,‡] by £300m by the end of 2022.

The progress we've made in the last year shows Aviva has what it takes to produce attractive and sustainable returns for shareholders. Our performance and progress give us the confidence to announce today an update to our dividend policy, with estimated dividend per share growth of c.40% in 2022[2,3] to 31.5p, based on the illustrative consolidation ratio.

Aviva has the foundations in place to deliver its promise. We've achieved a lot in the last year but we're only just getting started. There is so much more Aviva can and will deliver for our customers and our shareholders."

Delivering on our promise to shareholders - capital returns and updated dividend policy

- Total shareholder returns of £4.75bn comprising £3.75bn via B Share Scheme announced today[1,2] on top of existing £1bn share buyback
- Final dividend per share for 2021 of 14.7p (2020: 14.00p), with total dividend per share for the year up 5% to 22.05p (2020: 21.00p)
- In light of the significant progress we have made, and our confidence in the outlook for Aviva, we are announcing clear guidance on dividends for the next two financial years[2,3]:
  - For 2022 we estimate we will be able to pay a dividend of approximately £870m. Following the proposed B Share Scheme and share consolidation announced today, this would be equivalent to an illustrative per share amount of c.31.5p, an increase of c.40% on 2021[2,3]
  - For 2023 we estimate we will be able to pay a dividend of approximately £915m, growth of 5% giving an illustrative 33p per share[2,3]
- Thereafter we expect low-to-mid single digit growth in dividend per share. These cash dividends represent an attractive payout level from long-term, sustainable cash and capital, underpinned by our upgraded cash remittance target[5]
- Surplus capital above target levels is available for investment in the business or return to shareholders over time

There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals

‡ Denotes Alternative Performance Measures (APMs) and further information can be found in the 'Other information' section | 1 Subject to shareholder approval and customary conditions including no material deterioration in market conditions or the Company's financial position | 2 There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9 of this press release. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals | 3 Estimated dividends are for guidance, these are calculated using the illustrative consolidation ratio and are subject to change. The Board has not approved or made any decision to pay any dividend in respect of any future period | 4 Controllable costs excluding cost reduction implementation and IFRS 17 costs | 5 From continuing operations | 6 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section | 7 References to sales represent present value of new business premiums (PVNBP) which is an Alternative Performance Measure (APM) and further information can be found in the 'Other information' section

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

Significant operating momentum into 2022

- Cash remittances‡ from continuing operations up 22% to £1,662m (2020: £1,365m). Total cash remittances‡ of £1,899m (2020: £1,500m)
- Solvency II operating own funds generation (OFG)‡ from continuing operations flat at £1,187m (2020: £1,188m). Strong growth in General Insurance and Protection & Health offset by lower Solvency II OFG‡ from Annuities & Equity Release primarily owing to lower BPA margins
- Solvency II operating capital generation‡ from continuing operations up 9% to £1,364m (2020: £1,250m)
- UK & Ireland Life sales[1] up 22% to £35.6bn (2020: £29.3bn) with strong growth in Savings & Retirement[2] up 33%, and Annuities & Equity Release up 5% to £7.9bn (2020: £7.5bn) despite a subdued first half
- Record net flows‡ in Savings & Retirement of £10bn (2020: £8.5bn) achieving our £10bn ambition a year early
- Value of new business (VNB)‡,3 up 6% to £746m (2020: £704m) with strong performance in Savings & Retirement, Protection & Health and International Investments, partially offset by lower Annuities & Equity Release due to exceptional corporate bond spreads in 2020
- Highest General Insurance gross written premiums (GWP)[3] in over a decade, up 6% to £8.8bn (2020: £8.3bn), and combined operating ratio (COR)‡,3 of 92.9% (2020: 96.8%)
- Controllable costs‡,3 down 2% (excluding cost reduction implementation and IFRS 17 costs) to £2,856m (2020: £2,924m) and we have delivered all of the actions required to meet our existing £300m cost savings in 2022 relative to our 2018 baseline
- Operating profit‡,5 of £2,265m (2020: £3,161m) largely reflecting lower operating profit from discontinued operations. IFRS profit for the year of £2,036m (2020: £2,910m) reflecting lower operating profit combined with non-operating items
- Operating profit‡,5 from continuing operations down 10% to £1,634m (2020: £1,806m) with strong performance in General Insurance offset by lower operating profit‡,5 from UK & Ireland Life. Excluding UK Life management actions and other, which provided a net gain of £77m (2020: £469m), operating profit‡,5 from continuing operations up 16% to £1,557m (2020: £1,337m)

Financially strong and resilient

- Solvency II shareholder cover ratio‡ of 244% (2020: 202%) and centre liquidity‡ (Feb 22) of £6.6bn (Feb 21: £4.1bn)
- Estimated Solvency II shareholder cover ratio‡ and centre liquidity‡ pro forma for £4.75bn capital return, £1bn further debt reduction over time and pension scheme payment of 191% and £1.7bn respectively. The acquisition of Succession Wealth, announced today, will reduce the cover ratio by an estimated 5 percentage points once completed, and would reduce the pro forma cover ratio to 186%
- Solvency II debt leverage ratio‡ of 27% (2020: 31%) following £1.9bn debt reduction in H1. Expect to reduce debt by further £1bn over time. Estimated Solvency II debt leverage ratio‡ pro forma for this further debt reduction, £4.75bn capital return and pension payment, of 28%.

Establishing new, upgraded Group targets

- Cash remittances‡: >£5.4bn cumulative 2022-24. Underpinning our sustainable dividend policy. Upgraded from >£5bn 2021-23
- Solvency II own funds generation‡: £1.5bn per annum by 2024. A new target that represents a key driver of value and cash generation
- Controllable costs‡,3,4 savings: £750m 2018-24 gross of inflation. Equates to £400m net of inflation (upgraded from £300m net 2018-22)

Group financial performance highlights		Group financial strength		
Group adjusted operating profit‡,5	**IFRS profit for the year**	**Solvency II shareholder cover ratio‡**	**Solvency II debt leverage ratio‡**	**Centre liquidity‡**
£2,265m	**£2,036m**	**244%**	**27%**	**£6.6bn**
(28)%	**(30)%**	**+42pp**	**(4)pp**	**£2.6 bn**
2020: £3,161m	**2020: £2,910m**	**2020: 202%**	**2020: 31%**	**Feb 21: £4.1bn**

Outlook

We are confident that our progress in 2021 brings the momentum we need for success in 2022 and beyond, capitalising on our strengths and the growth opportunities in our core markets of UK, Ireland and Canada.

In UK & Ireland Life we expect to see continued growth across the portfolio, particularly in Savings & Retirement through both Workplace and Platform sales[1]. Our VNB‡ ambition of c.5-7% growth per annum is supported by volume growth.

In General Insurance we continue to see opportunities for growth in commercial lines as we capitalise on our market-leading positions and the favourable rate environment. In personal lines the softer rate and inflationary environment create headwinds as we enter 2022 however, experience is in line with expectations to date. This supports our Group COR‡,3 ambition of below 94%.

Our focus on enhancing performance will continue as we deliver further cost efficiencies to meet our upgraded cost target[4] of £750m (gross of inflation) by 2024.

Cash remittances‡,3 are expected to grow from £1.66bn achieved this year as we target greater than £5.4bn of cumulative cash remittances‡ in 2022 to 2024. This, together with the other upgraded targets set out today, supports our dividend policy and demonstrates our confidence and ambition for Aviva as we look to deliver on our promise to all of our stakeholders.

‡ Denotes Alternative Performance Measures (APMs) and further information can be found in the 'Other information' section
1 References to sales represent present value of new business premiums (PVNBP) which is an Alternative Performance Measure (APM) and further information can be found in the 'Other information' section
2 Savings & Retirements and Other
3 From continuing operations
4 Controllable costs excluding cost reduction implementation, IFRS 17 costs and planned investment in growth
5 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section

Chief Executive's Overview

Overview

In 2021, Aviva showed we've got what it takes to exceed customer expectations, execute our strategy at pace, and deliver sustainable growth.

We've made substantial progress in my first full year as CEO and I'm very proud of what we've achieved together. I'd like to thank our people for really going the extra mile during an incredibly challenging period.

We've focused our portfolio. We're financially strong. Now we can draw a line under these elements of our strategy and focus on delivering Aviva's promise: realising the full potential of this business and meeting our clear commitments to customers and shareholders.

Our customers are at the heart of that promise. We want to bring the value of Aviva to more of them than ever before. This year, we've shown we can deliver on that ambition. But I'm under no illusions. We've only just started to show what we're capable of.

We're going to take maximum advantage of our brand, our scale, and the strong relationships of trust we enjoy with both customers and intermediaries. We have everything in the toolbox to succeed, and with a refreshed, highly capable management team in place, we're confident in our ability to make a strong business even better.

A year of substantial progress

We have made clear strategic progress this year. We divested eight non-core businesses, generating £7.5 billion of proceeds and realising excellent value for our shareholders. As a result, Aviva is now much leaner, simpler, and focused on the UK, Ireland and Canada, where we have market-leading positions and clear plans to deliver strong returns.

We have strengthened our financial position, reducing debt levels by £1.9 billion in 2021, and our Solvency II debt leverage ratio has fallen to 27%, in line with our target of below 30%. Our solvency position will stand at 191% (net of the announced capital return and allowing for further debt reduction and one-off pension payment), and 186% after the Succession Wealth acquisition announced today. We continue to consider capital above a 180% Solvency II shareholder cover ratio as excess. Over time this may be used for investment in growth opportunities, or additional returns for shareholders.

Aviva is a market leader in sustainability, and we enhanced our track record during 2021. We were the first major insurer worldwide to commit to be Net Zero by 2040 across our operations, supply chain, underwriting and investment. We've committed to deploy £6 billion into green investments by 2025, launched a flagship partnership with the World Wide Fund for Nature (WWF) and played a leading role at COP26, including as part of the Glasgow Financial Alliance for Net Zero.

We have also made tangible progress in our operating performance. Trading in 2021 was strong, showing we have the foundations to deliver on our promise of targeted growth through a relentless focus on consistent, superior operating performance.

Our continuing operations delivered 22% growth in cash remittances, to £1,662 million, and we have clear line of sight to growing and sustainable cash flows over the coming years, providing the crucial underpin to our dividend.

In UK & Ireland Life we delivered excellent sales[1] growth of 22% to £35.6 billion, driven by 33% growth in Savings & Retirement[2] (with record net flows, up 17%) and 5% growth in Annuities & Equity Release, including record BPA volumes of £6.2 billion. VNB, a key measure of the profitability of new business, was down 1% to £668 million, due to the impact of the lower spread environment on BPA margins.

General Insurance gross written premiums[3] grew 6% to £8.8 billion, the highest sales in over a decade, benefiting from both volume and rate increases. General Insurance delivered an excellent combined operating ratio[3] of 92.9%, 4pp better than 2020.

External net flows in Aviva Investors more than doubled as we continue to see positive signs of improving performance in this business in both the top and bottom line.

We continued to focus on cost efficiency. Our 2021 results benefit from cumulative controllable cost savings[4] of £244 million against our 2018 baseline, as well as absorbing c.£130 million of inflation over that time, and we have now delivered all of the actions required to meet our existing £300 million target in 2022.

At a headline level, operating profit[5] from continuing operations was down 10% to £1,634 million. However, excluding UK Life management actions and other, which were lower than 2020, operating profit was up 16%, demonstrating the core earnings potential of Aviva.

In light of this progress and our financial position, the Board of Directors has declared a final dividend of 14.7 pence, bringing Aviva's 2021 total dividend per share to 22.05 pence, up 5% versus 2020.

Growing ambition

Refocusing Aviva means we can deliver what we said we would – a substantial capital return to our shareholders. We are returning £4.75 billion in total, via a £1 billion share buyback - which is largely complete - and the balance of £3.75 billion via a B Share Scheme with a share consolidation[6,7], which we intend to complete in May 2022[8].

We are also setting out plans for further investment to accelerate growth in our core businesses. We will be investing £300 million over the next three years into growth and £200 million to accelerate efficiency in order to serve our customers more effectively. And today we have announced the acquisition of Succession Wealth, a leading national independent financial advice firm, which will significantly enhance our position in the fast-growing wealth market. Additionally, we have the means to look opportunistically at further 'bolt-on' acquisitions that would complement our target growth areas.

1 References to sales represent present value of new business premiums (PVNBP) which is an Alternative Performance Measure (APM) and further information can be found in the 'Other information' section
2 Savings & Retirement and Other | 3 From continuing operations | 4 Controllable costs excluding cost reduction implementation and IFRS 17 costs
5 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section
6 Subject to shareholder approval and customary conditions including no material deterioration in market conditions or the Company's financial position
7 There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9 of this press release. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals
8 Settlement of B Share Scheme for American Depositary Shareholders expected to take place in early June 2022

Our confidence in the future means we are upgrading key financial targets:

- We're targeting cumulative cash remittances of greater than £5.4 billion across 2022-24 (up from greater than £5 billion 2021-23)
- We're introducing a new target to grow Solvency II own funds generation to £1.5 billion per annum by 2024, a key driver of long-term cash generation
- We're increasing our cost savings target to £750 million gross of inflation across 2018-24[1]

Our performance shows Aviva has what it takes to deliver strong, sustainable returns for shareholders. The confidence that brings allows us to update our dividend policy, with clear guidance on dividends for the next two financial years.

For 2022 we estimate we will pay a dividend of approximately £870 million, equivalent to an estimated per share amount of c.31.5pence[2,3], calculated using an illustrative consolidation ratio, an increase of c.40% on 2021. For 2023 we estimate we will pay a cash dividend of approximately £915 million which equates to an estimated dividend per share, calculated using an illustrative consolidation ratio, of around 33 pence[2,3]. Beyond 2023, we anticipate low-to-mid single digit growth in dividends per share.

This represents an attractive payout level, with long-term sustainability, and we are committed to delivering what we've promised.

One Aviva

Our progress makes for an increasingly compelling case to invest in Aviva. As the leading UK provider of insurance, protection, savings and retirement solutions, with strong businesses in Canada and Ireland, and Aviva Investors, we can offer something no other business can.

We are in a unique position of market strength. We can serve our customers across their full range of needs and we are the only business of our kind in the UK to do so. This diversity across markets, products and services gives us strong and lasting relationships with customers, and material capital benefits and cost efficiency.

With these advantages from our diversified model – what we call One Aviva - we are well set to take full advantage of structural growth opportunities arising from societal trends. For example, offering retirement solutions to the one in four people in the UK who will be over 65 by 2039, or taking a big slice of the estimated £30-50 billion flowing into bulk purchase annuities each year over the next 5 years.

Combining structural growth, with an emphasis on top quartile cost efficiency, and outstanding trading performance, will lead to sustainable, healthy cash generation. That in turn will result in secure, growing dividends over the long term.

Delivering Aviva's Promise

We aim to be a leading player in every major segment where we operate. Where we are already number one, we plan to leave the competition behind. Where we are not, we'll be chasing hard on their heels. We're focusing on four areas to make that a reality.

First, we will pursue continued, targeted growth in our priority areas: individual savings and retirement, workplace savings, bulk purchase annuities, protection and health, and general insurance. We have great capabilities, partnerships, and market shares, and we're ideally equipped to capitalise on big customer trends.

Second, we will provide leading customer experience and engagement. That means enhancing our digital capability to provide customers with a simpler, more personalised offering, with the products they need, when and how they need them.

Third, we are targeting top quartile efficiency and cost reduction. That means cutting old systems and products, making it easier for customers and brokers to deal with us, and automating processes to free up our people to focus on customer needs.

Finally, we will continue to live up to our responsibilities to people and the planet, changing the way we do business and using our influence to help others do the same, creating stronger communities, and embedding sustainability in everything we do.

Accelerating momentum for 2022

Aviva's whole reason to exist – our purpose - is to be with you today, for a better tomorrow. This applies to our customers, our people, and to the communities where we live and work. And it applies to our shareholders, the owners of this business, sharing in the value Aviva creates.

We've delivered much in 2021 to help us live up to that purpose, giving us the momentum we need for success in 2022 and beyond. I've got high ambitions for Aviva, and what we've done this year gives me increased confidence that we have all the building blocks in place to achieve those ambitions.

Amanda Blanc
Group Chief Executive Officer

1 March 2022

1 Controllable costs excluding cost reduction implementation, IFRS 17 costs and planned investment in growth
2 Estimated dividends are for guidance, these are calculated using the illustrative consolidation ratio, and are subject to change. The Board has not approved or made any decision to pay any dividend in respect of any future period
3 There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9 of this press release. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals

Other operating highlights

UK & Ireland Life	• Savings & Retirement – record net flows‡ up 17% to £10 billion (2020: £8.5 billion) delivering our ambition a year early • Workplace pensions – UK's largest provider by AUM‡ with £96 billion (2020: £81 billion), and scheme members up 6% to over 4 million • Adviser platform – top 2 by net flows[1,‡] in the adviser platform market with net flows‡ up 58% to £5.4 billion (2020: £3.4 billion) and AUM‡ up 25% to £43.1 billion (2020: £34.4 billion) • Annuities - record BPA sales[2] of £6.2 billion (2020: £6.0 billion), despite a subdued first half with total annuity sales[2] up 4% to £7.2 billion (2020: £6.9 billion) • Equity release – sales[2] up 23% reflecting easing of lockdown restrictions and introduction of virtual valuations • Protection & Health – new business margins‡ up to 7.9% (2020: 6.8%) due to more profitable mix of business • Ireland Life – VNB‡ up significantly to £22 million (2020: £12 million) helped by rationalised product offering
General Insurance	• UK commercial lines GWP up 15% to £2,609 million (2020: £2,262 million) • UK retail GWP up 3% with customers up 9% to 3.5 million • Canada commercial lines GWP up 10% to £1,268 million (2020: £1,153 million) with Global Corporate and Specialty reaching CAD$1.1 billion • Canada speciality personal lines GWP up 3% to £724 million (2020: £705 million) with high net worth policy count up 13%
Aviva Investors	• Net flows‡ improved to £1.5 billion (2020: £(1.1) billion) of which positive external net flows‡ of £3.3 billion (2020: £1.4 billion) and good trading momentum • Cost income ratio‡ improved by 7pp, with further improvements expected • AUM‡ across the Climate Transition fund range increased to £1.6bn (2020: £0.2bn)

‡ Denotes APMs and further information can be found in the Other information' section
1 Fundscape Q3 2021 press release, 9 months to end September 2021
2 References to sales represent present value of new business premiums (PVNBP) which is an Alternative Performance Measure (APM) and further information can be found in the 'Other information' section

Cash remittances‡,R and Centre liquidity‡

	2021 £m	2020 £m	Sterling % change
UK, Ireland, Canada and Aviva Investors	**1,651**	1,359	21 %
International investments[1]	**11**	6	83 %
Cash remittances from continuing operations	**1,662**	1,365	22 %
Discontinued operations[2] and Other	**237**	135	76 %
Group cash remittances‡	**1,899**	1,500	27 %
Centre liquidity‡ as at February 2022 and 2021	**6,644**	4,085	63 %

Profit

	2021 £m	2020 £m	Sterling % change
UK, Ireland, Canada and Aviva Investors	**2,231**	2,432	(8)%
International investments[1]	**97**	26	273 %
Corporate centre costs and Other operations	**(379)**	(282)	(34)%
Group debt costs and other interest	**(315)**	(370)	15 %
Adjusted operating profit from continuing operations	**1,634**	1,806	(10)%
Discontinued operations[2]	**631**	1,355	(53)%
Group adjusted operating profit before tax[3,‡R]	**2,265**	3,161	(28)%
IFRS profit for the year[4]	**2,036**	2,910	(30)%
Operating earnings per share[5,‡R]	**43.8p**	60.8p	(28)%
Basic earnings per share	**50.1p**	70.2p	(29)%

Controllable costs‡

	2021 £m	2020 £m	Sterling % change
Excluding cost reduction implementation and IFRS 17 costs			
UK, Ireland, Canada and Aviva Investors	**2,559**	2,664	(4)%
Corporate centre costs and Other operations	**297**	260	14 %
	2,856	2,924	(2)%
Cost reduction implementation and IFRS 17 costs[6]	**240**	107	124 %
Controllable costs from continuing operations	**3,096**	3,031	2 %
Discontinued operations[2]	**590**	904	(35)%
Group controllable costs‡	**3,686**	3,935	(6)%

Solvency II operating own funds generation (OFG)‡,R and Solvency II operating capital generation (OCG)‡

	Solvency II operating own funds generation			Solvency II operating capital generation		
	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change
UK, Ireland, Canada and Aviva Investors	**1,660**	1,699	(2)%	**1,906**	1,907	— %
International investments[1]	**124**	63	97 %	**55**	4	N/A
Corporate centre costs, Group external debt costs and Other	**(597)**	(574)	(4)%	**(597)**	(661)	10 %
Continuing operations	**1,187**	1,188	— %	**1,364**	1,250	9 %
Discontinued operations[2,7]	**458**	503	(9)%	**197**	682	(71)%
Group Solvency II operating own funds generation‡ and Solvency II operating capital generation‡	**1,645**	1,691	(3)%	**1,561**	1,932	(19)%

Solvency II return on capital/equity‡,R

	2021 %	Restated 2020[8] %	Change
Solvency II return on capital			
UK, Ireland, Canada and Aviva Investors	**8.8 %**	9.4 %	(0.6)pp
International investments[1]	**13.6 %**	9.8 %	3.8 pp
Discontinued operations[2, 7]	**7.2 %**	6.8 %	0.4 pp
Group Solvency II return on equity‡	**11.3 %**	12.3 %	(1.0)pp

Capital position

	31 December 2021	31 December 2020	Change
Estimated Solvency II shareholder cover ratio‡R	**244 %**	202 %	42 pp
Estimated Solvency II surplus	**£13.1bn**	£13.0bn	1 %
Solvency II net asset value per share‡	**417p**	442p	(25)p
Solvency II debt leverage ratio‡	**27 %**	31 %	(4)pp

Dividend

	2021	2020	Sterling % change
Interim dividend per share	**7.35p**	7.00p	5 %
Final dividend per share	**14.70p**	14.00p	5 %
Total dividend per share	**22.05p**	21.00p	5 %

R Symbol denotes key performance indicators used as a base to determine or modify remuneration. | ‡ Denotes Alternative Performance Measures (APMs) and further information can be found in the 'Other information' section |1 International investments include Aviva's interest in joint ventures/associates in Singapore, India and China. | 2 Discontinued operations include France, Italy, Poland, Singapore, Turkey, Vietnam, Hong Kong, Friends Provident International, Indonesia, Aviva Investors France and Aviva Investors Poland. | 3 Group adjusted operating profit is a non-GAAP APM and is not bound by the requirements of IFRS. Further details of this measure are included in the 'Other information' section. | 4 IFRS profit for the year represents IFRS profit after tax. | 5 Operating earnings per share is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other information' section. | 6 Includes costs related to initiatives taken to further reduce our cost base and IFRS 17 implementation costs. | 7 Group level adjustments for minority interests in joint ventures are included within Discontinued operations. | 8 Following a review of the basis of preparation of Group Solvency II Return on Equity and Market Solvency II Return on Capital, comparative amounts for the year ended 31 December 2020 have been restated. In the numerator, Transitional Measure on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis and, for Group Solvency II Return on Equity only, the denominator has been adjusted to exclude excess capital above our target Solvency II shareholder cover ratio. Further details can be found in the 'Other information' section.

Group financial headlines

Operating results

Cash remittances

Cash remittances during 2021 were £1.9 billion (2020: £1.5 billion) with the vast majority of these, £1.66 billion (2020: £1.37 billion), delivered from our continuing operations. The growth in 2021 remittances, partly reflecting lower remittances in 2020 due to the decision to retain cash in our subsidiaries to maintain balance sheet strength, was in line with our existing target to grow towards £1.8 billion in 2023.

Profit

Operating profit[1] of £2,265 million (2020: £3,161 million) and operating earnings per share of 43.8 pence (2020: 60.8 pence) decreased largely owing to our divestments with reduced operating profit[1] from discontinued operations. In 2021 we completed disposals of all discontinued operations which concludes our divestment programme.

IFRS profit for the year was £2,036 million (2020: £2,910 million) while basic earnings per share decreased to 50.1 pence (2020: 70.2 pence) driven by the reduction in operating profit[1] combined with non-operating items. Non-operating items included a profit on disposals of £1,572 million (2020: profit of £725 million) following the sale of our discontinued operations which was partially offset by economic variances of £(1,039) million (2020: positive impact of £6 million). Higher interest rates and strong equity returns resulted in an adverse economic variance impact as our hedging programme is run on an economic basis, protecting the solvency position.

Operating profit[1] from continuing operations decreased by 10% to £1,634 million (2020: £1,806 million). However, excluding UK Life management actions and other of £77 million (2020: £469 million), operating profit[1] was up 16% to £1,557 million (2020: £1,337 million).

UK & Ireland Life operating profit[1] benefitted from strong results in Savings & Retirement and Protection & Health, however this was more than offset by lower profits in Annuities & Equity Release as well as lower levels of management actions and other compared to 2020.

General Insurance performed strongly, driven by improvements in underwriting performance and reduced COVID-19 related claims. Our International Investments also performed well with strong results from Singapore.

Cost reduction

Controllable costs from continuing operations, excluding cost reduction implementation and IFRS 17 costs, fell by 2% to £2,856 million (2020: £2,924 million), despite headwinds from inflation and targeted investments in growth. We have achieved £244 million cost reduction in the period 2018-21, as well as absorbing c.£130 million of inflation over that time, and remain on target to meet our £300 million cost ambition in 2022. As a result of this we are setting a target of £750 million, gross of inflation, from the same 2018 baseline by the end of 2024. Net of inflation, this equates to £400 million of savings from 2018 to 2024.

Solvency II operating own funds generation (Solvency II OFG)

Total Solvency II OFG decreased marginally to £1,645 million (2020: £1,691 million) due to lower Solvency II OFG from discontinued operations.

Solvency II OFG from continuing operations was flat on the prior year as lower margins on annuities and lower management actions in UK Life were offset by higher Solvency II OFG from Protection & Health, Ireland Life, General Insurance and International Investments.

Solvency II operating capital generation (Solvency II OCG)

Total Solvency II OCG decreased to £1,561 million (2020: £1,932 million) driven largely by reduced Solvency II OCG from discontinued operations, due to disposals in 2020 and 2021.

Solvency II OCG from continuing operations increased by 9% to £1,364 million (2020: £1,250 million) driven by higher Solvency II OCG from General Insurance, Aviva Investors and International Investments, partially offset by lower Solvency II OCG from UK & Ireland Life. Higher earnings from existing business in UK & Ireland Life were offset by lower management actions and other, reflecting lower net benefit from assumption changes and non-recurring items in 2021.

Solvency II return on equity (Solvency II RoE)

Solvency II return on equity has been amended following a review of the basis of preparation. In the numerator, Transitional Measures on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis and the denominator has been adjusted to exclude excess capital above our target Solvency II shareholder cover ratio. This approach improves comparability of Solvency II return across Life and General Insurance business whilst removing distortions that would otherwise arise where the Group is temporarily holding excess capital.

Using this revised methodology, Solvency II RoE was 11.3%. This was 1.0pp lower than the restated 2020 Solvency II RoE (2020 restated: 12.3%), mainly reflecting the impact of lower interest rates in 2020 on the 2021 opening capital position. Solvency II RoE on a continuing basis was 10.7% (2020 restated: 11.7%). Our ambition is for Solvency II RoE on a continuing basis to improve to >12% by 2024.

Capital and cash

Capital return

Under our capital framework, we consider capital above 180% Solvency II shareholder cover ratio as excess, allowing for reinvestment in the business and returns to shareholders. We target Solvency II debt leverage ratio of below 30%.

In line with this framework, today we are announcing our intention to return £3.75 billion to shareholders via a proposed B Share Scheme[2] in addition to the £1 billion share buyback already underway. This takes the total amount to be returned to shareholders to £4.75 billion since August 2021.

1 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section.
2 Subject to shareholder approval and other customary conditions, including no material deterioration in market conditions or the Company's financial position. There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9 of this press release. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals

This, combined with debt repayments of £2 billion (including £0.1 billion premium on tender) carried out in the first half of 2021, and repayment of £0.7 billion of the internal loan, utilises the £7.5 billion of proceeds from the divestments.

B Share Scheme[1,2]

The additional £3.75 billion capital return announced today will be returned via a B Share Scheme, expected to be settled in May 2022[1,2,3].

Shareholders will receive one B Share for each existing ordinary share held at the relevant record time with B Shares redeemed for cash (estimated proceeds of c.100p per share[1,2]). An ordinary share consolidation will also take place. The aim of the consolidation is to seek to ensure that the market price of Aviva ordinary shares (along with other data points for comparability) remains consistent after the B Share Scheme. Full details of the B Share Scheme (including mechanics, eligibility, consolidation ratio and amounts) will be set out in an explanatory circular which will be made available on or around 4 April 2022.

As an illustrative example, following the capital return and share consolidation, an ordinary shareholder with a holding of 100 shares at the record time will receive cash of £100 via the B Share Scheme, and will have a remaining holding in Aviva of 75 new ordinary shares[1,2].

Solvency II capital

At 31 December 2021, Aviva's Solvency II shareholder surplus was £13.1 billion and Solvency II shareholder cover ratio was 244% (2020: £13.0 billion and 202% respectively). Our pro forma Solvency II cover ratio allowing for the announced further capital return of £3.75 billion, £1 billion further debt reduction over time and pension scheme payment is estimated at 191%. The acquisition of Succession Wealth, announced today, will have an estimated 5 percentage points adverse impact on the cover ratio once completed, and would reduce the pro forma Solvency II cover ratio to 186%.

The solvency capital requirement of £9.1 billion includes a c.£2 billion benefit from Group diversification.

Solvency II net asset value per share was 417 pence (2020: 442 pence) as Solvency II OFG and the reduction in the value of subordinated liabilities as a result of higher interest rates, were more than offset by the payment of dividends, share buyback and adverse non-operating movements in own funds also driven by higher interest rates.

Pro forma **£bn unless otherwise stated**	31 December 2020	31 December 2021	£3.75bn B Share capital return	£1bn further debt reduction	Pension scheme payment	Pro forma
Own funds	25.8	22.2	(3.75)	(1.00)	(0.1)	17.4
SCR	(12.8)	(9.1)				(9.1)
Surplus	13.0	13.1	(3.75)	(1.00)	(0.1)	8.3
Solvency II shareholder cover ratio (%)	202 %	244 %	(41)%	(11)%	(1)%	191 %
Centre liquidity (as at end February)	4.1	6.6				1.7
Solvency II debt leverage ratio	31 %	27 %				28 %

Centre liquidity

At end February 2022, centre liquidity was £6.6 billion (February 2021: £4.1 billion) with the increase primarily driven by disposal proceeds of £6.2 billion and cash remittances of £1.9 billion offset by debt repayments of £2.7 billion, ordinary dividend payment of £0.8 billion, share buyback of £0.9 billion and centre costs of £0.8 billion. Our pro forma centre liquidity including allowance for the remaining share buyback is £1.7 billion. We will look to maintain centre liquidity at c.£1.5 billion.

Solvency II debt leverage

Solvency II debt leverage ratio decreased to 27% (2020: 31%) primarily owing to our debt reduction actions of £1.9 billion. Our pro forma Solvency II debt leverage ratio is 28%.

Dividend

Today we have announced a final dividend per share for 2021 of 14.7 pence (2020: 14.0 pence).Together with an interim of 7.35 pence (2020: 7.0 pence) this brings total dividends for the year to 22.05 pence (2020: 21.00 pence), up 5% with a cash cost of c.£831 million.

Dividend policy and dividend outlook

We recognise that dividends are important to our shareholders, with sustainable growth in cash generation an important driver of dividend capacity. In light of the significant progress we have made, prospective changes to our capital structure, and our confidence in the outlook for Aviva, we are announcing today clear guidance on dividends for the next two financial years.

For the 2022 financial year we estimate a dividend payment of approximately £870 million, equivalent to an estimated per share amount of c.31.5 pence, calculated using an illustrative consolidation ratio[2,4].

For 2023 we estimate a dividend payment of approximately £915 million, equivalent to an estimated per share amount of c.33 pence , calculated using an illustrative consolidation ratio[2,4].

Thereafter we anticipate low-to-mid single digit growth in dividends per share. These dividend estimates are subject to market conditions and Board approval.

These dividend amounts represent an attractive cash payout level together with long-term sustainability.

Surplus free cash flow not paid as a dividend is available for organic and inorganic investment in the business. Any build up in surplus capital above 180% Solvency II shareholder cover ratio that is not reinvested into the business, is available for return to shareholders over time (subject to market conditions, and Board and regulatory approvals).

1 Subject to shareholder approval and customary conditions including no material deterioration in market conditions or the Company's financial position
2 There are important notices relating to the B Share Scheme and illustrative share consolidation ratio and illustrative future dividend per share on page 9 of this press release. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals
3 Settlement of B Share Scheme for American Depositary Share holders expected to take place in early June 2022
4 Estimated dividends are for guidance, these are calculated using the illustrative consolidation ratio and are subject to change. The Board has not approved or made any decision to pay any dividend in respect of any future period

Investment in the business

Today, in addition to returning £4.75bn to shareholders[1], we are setting out plans for reinvestment into the businesses to further accelerate growth. We will be investing £300 million over the next three years into growth, with costs of c.£100 million per annum (2022-24) expected to deliver run-rate operating profit[2] benefits of £100 million from 2025 onwards. We will also be investing £200 million to accelerate efficiency. We expect implementation costs to be £100 million per annum (2022-23) to deliver the upgraded cost target of £750 million by 2024. This is equivalent to approximately a further £250 million per annum cost savings from 2024 compared to 2022 (including absorbing c.£150 million of inflation).

Surplus above 180% Solvency II shareholder cover ratio also provides the opportunity to consider bolt-on acquisitions that would complement our target growth areas.

Announced acquisition of Succession Wealth

In line with our strategy to target sustainable growth in core markets, we are also announcing today the acquisition of Succession Wealth, a leading national independent financial advice firm. This significantly enhances our position in the fast-growing UK wealth market and accelerates our ability to offer high-quality financial advice to 6 million of our workplace and individual pension and savings customers.

Succession Wealth will be acquired for a consideration of £385 million and its 2022 EBITDA is expected to be £24 million. The transaction, which is being funded by cash from our strong capital position, is expected to have an estimated 5 percentage points adverse impact on the Group's Solvency II shareholder cover ratio once completed. We are expecting a double digit return on our investment over the medium term through accelerated growth.

Targets

Today we are also upgrading our financial targets:

- Cash remittances of >£5.4 billion cumulative 2022-24
- Solvency II own funds generation growing to £1.5 billion per annum by 2024
- Controllable costs[3,4] savings: £750 million 2018-24 gross of inflation. Equates to £400 million net of inflation

We are also providing guidance that we expect to grow Solvency II RoE to >12% over the medium term, based on our revised methodology.

These upgraded targets support cash generation and in turn our dividend policy and demonstrate our confidence and ambition for Aviva as we look to deliver on our promise to all of our stakeholders.

Important information regarding B Share Scheme and illustrative consolidation ratio

The illustrative share consolidation referenced in this document refers to a ratio of 75 for 100. This is an illustrative consolidation ratio only and is based upon the average market capitalisation of Aviva over the last five trading days in February, adjusted for the 2021 final dividend. The actual consolidation ratio to be applied is expected to be published on or around 4 April 2022 and may be calculated on a different basis depending on share price volatility, with the directors retaining absolute discretion to determine the final ratio, including by reference to share price movement after the date of this press release amongst other things. The aim of the consolidation is to seek to ensure that the market price of Aviva ordinary shares (along with other data points for comparability) remains consistent after the B Share Scheme. The estimated proceeds under the B Share Scheme of approximately 100 pence per share are subject to change. Full details of the B Share Scheme (including mechanics, eligibility, consolidation ratio and proceeds) will be set out in an explanatory circular which will be made available on or around 4 April 2022. The B Share Scheme and share consolidation remain subject to shareholder approval and customary conditions including no material deterioration in market conditions or the company's financial position. This illustrative consolidation ratio is not and should not be taken as an expectation or used as the basis of any investment decision. In particular, the actual consolidation ratio applied in the B Share Scheme could result in different estimated DPS amounts for 2022 and 2023 than those referred to in the document.

1 Subject to shareholder approval and other customary conditions, including no material deterioration in market conditions or the Company's financial position
2 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section.
3 From continuing operations
4 Controllable costs excluding cost reduction implementation, IFRS 17 costs and planned investment in growth

Business highlights
UK & Ireland Life

Operating profit	2021 £m	2020 £m	Sterling % change
Savings & Retirement	**147**	119	24 %
Annuities & Equity Release	**645**	815	(21)%
Protection & Health	**229**	189	21 %
Heritage	**319**	321	(1)%
Other	**77**	469	(84)%
Ireland Life	**11**	(6)	283 %
Total	**1,428**	1,907	(25)%

UK and Ireland Life operating profit[1] was 25% lower at £1,428 million (2020: £1,907 million). Excluding management actions and other in UK Life, which provided a net benefit of £77 million (2020: £469 million), this was 6% lower at £1,351 million (2020: £1,438 million).

Savings & Retirement operating profit[1] increased 24% to £147 million (2020: £119 million) reflecting higher revenues from strong growth in AUM. Protection & Health operating profit[1] increased 21% to £229 million (2020: £189 million) driven by an improvement in new business profitability and reduced costs. This was more than offset by a reduction in profit from Annuities & Equity release, which was 21% lower at £645 million (2020: £815 million) driven by lower profit from bulk purchase annuities as a result of the lower credit spread environment following exceptionally strong corporate bond yields in 2020, and lower profit presented within Other. Other operating profit[1] was lower due to lower longevity benefits of £266 million (2020: £390 million), non-recurrence of an expense reserve release in 2020 of £123 million and a number of offsetting items including a provision for legacy customer remediation, increased IFRS 17 costs and reduction in the carrying value of deferred acquisition costs as a result of higher interest rates.

Ireland Life operating profit[1] improved significantly driven by reduced expenses, higher annual management charge income and improved claims experience.

UK & Ireland Life Solvency II OFG of £953 million (2020: £1,057 million) was down 10% and down 7% excluding management actions & other. Protection & Health was up 81% to £132 million (2020: £73 million) driven by higher new business margins and a strong Group Protection performance. Savings & Retirement Solvency II OFG was flat as expenses on our growing Platform business are required to be recognised in full up front. Annuities & Equity Release Solvency II OFG of £392 million (2020: £513 million) was down 24% mainly reflecting lower bulk annuity margins. Management actions & other of £279 million (2020: £335 million) was down 17%. Ireland Life returned to positive Solvency II OFG of £19 million, up from £(32) million in 2020.

	PVNBP			VNB		
New business	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change
Savings & Retirement and Other	**23,718**	17,777	33 %	**178**	140	27 %
Annuities & Equity Release	**7,887**	7,508	5 %	**280**	356	(21)%
Protection & Health	**2,374**	2,439	(3)%	**188**	167	13 %
Ireland Life	**1,646**	1,534	7 %	**22**	12	78 %
UK & Ireland Life total	**35,625**	**29,258**	22 %	**668**	**675**	(1)%

Savings & Retirement sales[2,3] grew 33% driven by strong performance in both Workplace and Platform. Both new scheme wins and member growth contributed to growth in Workplace with Platform growth reflecting improvements in the functionality and propositions of our platform offering, as well as a return to confidence in the wider market. This growth resulted in our most successful tax year-end across Savings & Retirement. VNB increased 27% driven by growth in sales[2].

Annuities & Equity Release sales[2] were 5% higher, driven by strong growth in equity release sales[2] up 23% on prior year, as the market sharply rebounded following reduced activity in 2020, and with record BPA sales[2] of £6.2 billion (2020: £6.0 billion), despite a subdued first half. Individual annuity volumes were also marginally ahead of 2020 volumes. VNB has improved during the second half, as we switched a greater proportion of assets from cash and gilts into illiquids but overall remains lower than prior year reflecting the lower credit spread environment.

Protection & Health VNB was up 13% despite lower sales[2], which were 3% lower as strong performance in Health and Individual Protection was offset by a subdued Group Protection market, following a strong year in 2020. Health volumes grew 19% driven by a positive reaction to our Expert Select proposition. A more profitable business mix combined with reduced costs in both Health and Individual Protection led to an increase in VNB.

Ireland Life PVNBP grew 7% driven by strong sales[2] in unit linked and protection business. A new single product offering has improved margins and driven VNB up significantly over the year.

	Net flows			Assets under management		
	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change
Savings & Retirement	**10,024**	8,547	17 %	**152,207**	128,258	19 %

Savings & Retirement net flows were up 17% to £10 billion (2020: £8.5 billion), benefiting from strong inflows in both Workplace and Platform, delivering our ambition of £10 billion net flows one year early. Our adviser platform business continued to grow with net flows up 58% to £5.4 billion (2020: £3.4 billion) reflecting a record year for inflows. Workplace inflows increased by 16% to £10.5 billion (2020: £9.0 billion) benefiting from our most successful tax year-end bonus sacrifice campaign and growth in members, up 244,000 to over 4 million. This was offset slightly by a normalisation of outflows following subdued levels in 2020.

Savings & Retirement assets under management grew to £152 billion (2020: £128 billion) due to a combination of strong net flows and positive market movements.

1 Operating profit represents Group adjusted operating profit which is a non-GAAP APM. Operating profit is not bound by the requirements of IFRS. Further details are included in the 'Other information' section.
2 References to sales represent present value of new business premiums (PVNBP) which is an Alternative Performance Measure (APM) and further information can be found in the 'Other information' section.
3 Savings & Retirement and Other

General Insurance

Operating profit	2021 £m	2020 £m	Sterling % change
UK	**318**	182	75 %
Ireland	**38**	31	23 %
Canada	**406**	287	42 %
General Insurance Total	**762**	500	52 %

Operating profit[1] increased to £762 million (2020: £500 million) owing to a combination of an improvement in underlying performance and a reduction in COVID-19 related claims compared to the prior year. This was partially offset by lower frequency benefits as COVID-19 restrictions eased and a reduction in long-term investment return due to lower interest rates and a more cautious investment strategy implemented in 2020.

General Insurance Solvency II OFG of £671 million (2020: £616 million) was up 9% in the year. UK & Ireland GI Solvency II OFG of £339 million (2020: £329 million) was up 3%, whilst Canada Solvency II OFG of £332 million (2020: £287 million) was up 16%.

	Personal lines			Commercial lines			GWP			COR		
	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change	2021 %	2020 %	Sterling % change
UK	**2,334**	2,377	(2)%	**2,609**	2,262	15 %	**4,943**	4,639	7 %	**94.6 %**	98.5 %	(3.9)pp
Ireland	**203**	231	(12)%	**206**	181	14 %	**409**	412	(1)%	**91.7 %**	95.2 %	(3.5)pp
Canada	**2,187**	2,118	3 %	**1,268**	1,153	10 %	**3,455**	3,271	6 %	**90.7 %**	94.7 %	(4.0)pp
Total	**4,724**	4,726	— %	**4,083**	3,596	14 %	**8,807**	8,322	6 %	**92.9 %**	96.8 %	(3.9)pp

UK, Ireland and Canada COR improved sharply to 92.9% from 96.8%. UK COR improved 3.9pp to 94.6% (2020: 98.5%) driven by a reduction in COVID-19 related claims and profitable new business growth in commercial lines, growth in higher margin retail business and benefits of ongoing simplification in personal lines, partially offset by lower frequency benefits. Canada COR improved 4.0pp to 90.7% (2020: 94.7%) due to continued rate strengthening and a shift to higher value policies in commercial lines partially offset by higher weather losses in personal lines.

Total GWP across UK, Ireland and Canada was the highest for a decade, growing 6% to £8.8 billion (2020: £8.3 billion), including 7% growth in the UK and 6% in Canada. Ireland was flat on the prior year.

UK commercial lines GWP grew 15% to £2,609 million (2020: £2,262 million), reflecting the benefits of investment in underwriting talent which led to strong new business growth, high retention levels and continued rate momentum. Canada commercial lines GWP increased 10% to £1,268 million (2020: £1,153 million) due to increased rate in the prevailing hard market, the strategic shift to mid-market and higher policy retention.

UK personal lines GWP was 2% lower at £2,334 million (2020: £2,377 million). Sales through retail channels increased 3%, more than offset by lower sales through our distribution partners and very low demand for travel insurance in 2021. Retail growth benefited from the successful launch of the Aviva brand on price comparison websites for motor and home, which helped to grow our market share. Canada personal lines GWP of £2,187million (2020: £2,118 million) was up 3% due to higher new business and retention despite rate reductions in Ontario motor.

Aviva Investors

Operating profit	2021	2020	Sterling % change
Aviva Investors	**41**	25	64 %

Aviva Investors operating profit[1] increased to £41 million (2020: £25 million) reflecting 6% growth in revenues driven by a 50% increase in origination of real assets and higher asset levels owing to positive net flows and positive market movements. Cost efficiency measures and streamlining of the business resulted in a reduction in controllable costs (excluding cost reduction implementation costs) to £345 million (2020: £356 million) with further benefits expected in the future. This resulted in the cost income ratio improving by 7pp to 86% (2020: 93%).

	Net flows			Assets under management		
	2021 £m	2020 £m	Sterling % change	**2021 £m**	2020 £m	Sterling % change
Aviva Investors	**1,481**	(1,084)	237 %	**267,780**	260,286	3 %
Of which: Aviva Investors external assets	**3,313**	1,397	137%	**51,332**	51,749	(1)%

Aviva Investors net flows, excluding cash and liquidity funds, improved to £1.5 billion compared to outflows of £1.1 billion in 2020. This included external net flows, excluding cash and liquidity funds, which more than doubled to £3.3 billion (2020: £1.4 billion). AUM increased by £7.5 billion during 2021 with positive impact from net flows and markets partly offset by the impact of corporate actions which comprised the sale of our US investment grade credit capability and fund rationalisations.

Investment performance improved significantly with AUM ahead of benchmark over one year, up to 69% (2020: 55%) and over 3 years up to 65% (2020: 56%). Our trading momentum remains positive as we continue to build and deliver growth through our strengths of ESG, real assets, infrastructure, credit and sustainable equities.

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

International Investments

International Investments comprises our joint ventures and associates in China, Singapore and India, providing us with value creation potential and optionality in attractive and fast-growing markets.

	2021 £m	2020 £m	Sterling % change
Operating profit	**97**	26	273 %
PVNBP	**1,122**	664	69 %
VNB	**78**	29	175 %

Operating profit[1] increased three-fold to £97 million (2020: £26 million) and Solvency II OFG was up 97% to £124 million (2020: £63 million) largely due to the inclusion of our minority stake in Aviva SingLife which was formed on 30 November 2020 following the disposal of Aviva Singapore (shown in discontinued operations for 2020). During 2021 Aviva SingLife had a strong performance arising from the successful launch of a new long-term care product. Alongside improved volumes and margins in China, this contributed to higher PVNBP of £1,122 million (2020: £664 million) and VNB of £78 million (2020: £29 million).

Corporate centre costs, Group debt costs and Other

Corporate centre costs and Other operations of £379 million (2020: £282 million) increased due to higher cost reduction implementation, IFRS 17 costs and project costs. This is partially offset by the non-recurring £34 million of COVID-19 charitable donations in 2020.

Group debt costs and other interest reduced to £315 million (2020: £370 million). External debt costs reduced 14% as a result of £1.9 billion reduction in external debt in 2021. Internal lending arrangements are lower than prior year which is partially offset by lower pension scheme finance income, both driven by lower interest rates.

Discontinued operations

Discontinued operations comprises our former businesses in France, Italy, Poland, Turkey and Asia (Friends Provident International (FPI), Aviva Singapore, Hong Kong, Indonesia and Vietnam) and also includes Aviva Investors' discontinued operations in France and Poland.

In 2021 we have completed disposals of all discontinued operations, which concludes the refocus of our portfolio and a divestment programme in which eight non-core businesses have been sold. The results for the discontinued operations includes the operating performance of businesses disposed until the completion date of the respective sale.

Operating profit[1] has decreased by 53% to £631 million (2020: £1,355 million) driven by the completion of disposals in 2020 and 2021. Operating profit[1] in France was lower due to adverse conditions in the general insurance business, and a lower result in Italy was largely as a result of adverse claims experience due to higher mortality rates and a non-recurring loss on dormant policies.

Other

Implementation of IFRS 17

IFRS 17 is a comprehensive new accounting standard, effective from 1 January 2023 (subject to UK endorsement) which predominantly affects the timing of profit recognition for long term insurance contracts. The Group is in the advanced stages of implementing the standard, albeit some material judgements are still under consideration.

IFRS 17 introduces the concept of a contractual service margin (CSM) liability that defers future unearned profit on insurance contracts. The recognition of a CSM for our life businesses is expected to result in a material reduction in the IFRS net asset value of the Group on transition to IFRS 17, with a stock of future profits held on the balance sheet as a liability and released over time.

The cash flows and underlying capital generation of our businesses are unaffected by IFRS 17, and the standard will have no impact on our Solvency II performance metrics or the Group financial targets we have announced. Furthermore, we do not expect IFRS 17 to impact the dividend policy, dividend guidance and planned capital return.

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

Cautionary statements

This document 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 uncertain conditions in the global financial markets and the local and international political and economic situation generally (including those arising from the Russia-Ukraine conflict); market developments and government actions (including those arising from the evolving relationship between the UK and the EU); 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 or yield of our investment portfolio and impact our asset and liability matching; the unpredictable consequences of reforms to reference rates, including LIBOR; 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; the transitional, litigation and physical risks associated with climate change; our reliance on information and technology and third-party service providers for our operations and systems; the impact of the Group's risk mitigation strategies proving less effective than anticipated, including the inability of reinsurers to meet obligations or unavailability of reinsurance coverage; poor investment performance of the Group's asset management business; the withdrawal by customer's at short notice of assets under the Group's management; failure to manage risks in operating securities lending of Group and third-party client assets; increased competition in the UK and in other countries where we have significant operations; regulatory approval of changes to the Group's internal model for calculation of regulatory capital under the UK's version of Solvency II rules; 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 and malicious acts (including cyber attack and theft, loss or misuse of customer data); 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 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 tax laws and interpretation of existing tax laws in jurisdictions where we conduct business; changes to International Financial Reporting Standards relevant to insurance companies and their interpretation (for example, IFRS 17); the inability to protect our intellectual property; the effect of undisclosed liabilities, separation issues and other risks associated with our business disposals; and other uncertainties, such as diversion of management attention and other resources, 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, Canada or elsewhere, including changes to and the implementation of key legislation and regulation. Please see Aviva's most recent Annual Report for further details of risks, uncertainties and other factors relevant to the business and its securities.

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 report are current only as of the date on which such statements are made.

This report has been prepared for, and only for, the members of the Company, as a body, and no other persons. The Company, its directors, employees, agents or advisers do not accept or assume responsibility to any other person to who this document is shown or into whose hands it may come, and any such responsibility or liability is expressly disclaimed.

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Notes to editors

- All figures have been retranslated at average exchange rates applying for the period, with the exception of the capital position which is translated at the closing rates on 31 December 2021. The average rates employed in this announcement are 1 euro = £0.86 (12 months to 31 December 2020: 1 euro = £0.88) and CAD$1 = £0.58 (12 months to 31 December 2020: 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.
- 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. A complete list and further guidance in respect of the APMs used by the Group can be found in the 'Other information' section.
- We are the UK's leading Insurance, Wealth & Retirement business and we operate across our core markets of the UK, Ireland and Canada. We also have international investments in Singapore, China and India.
- We help our 18.5 million customers (core markets) make the most out of life, plan for the future, and have the confidence that if things go wrong we'll be there to put it right.
- We have been taking care of people for 325 years, in line with our purpose of being 'with you today, for a better tomorrow'. In 2021, we paid £30.2 billion in claims and benefits to our customers.
- Aviva is a market leader in sustainability. In 2021, we announced our plan to become a Net Zero carbon emissions company by 2040, the first major insurance company in the world to do so. This plan means Net Zero carbon emissions from our investments by 2040; setting out a clear pathway to get there with a cut of 25% in the carbon intensity of our investments by 2025 and of 60% by 2030; and Net Zero carbon emissions from our own operations and supply chain by 2030. Find out more about our climate goals at www.aviva.com/climate-goals and our sustainability ambition and action at www.aviva.com/sustainability
- Aviva is a Living Wage and Living Hours employer and provides market-leading benefits for our people, including flexible working, paid carers leave and equal parental leave. Find out more at www.aviva.com/about-us/our-people
- As at 31 December 2021, total Group assets under management at Aviva Group are £401 billion and our Solvency II shareholder capital surplus is £13.1 billion. Our shares are listed on the London Stock Exchange and we are a member of the FTSE 100 index.
- For more details on what we do, our business and how we help our customers, visit www.aviva.com/about-us

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				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 APMs used by the Group, including a reconciliation to the financial statements (where possible), can be found within the Other Information section.

The financial performance of our key markets are presented as UK & Ireland Life, General Insurance (incorporating UK & Ireland and Canada) and Aviva Investors. Our other continuing International businesses are presented as International investments (consisting of our interest in Singapore (Aviva Singlife), China and India) and previously referred to as Strategic investments.

Following the announcement of disposals during 2020 and 2021, the results of these businesses, which includes France, Italy, Poland, Turkey and Asia are presented as Discontinued operations. The 2020 comparative amounts have been re-presented from those published in the 2020 Preliminary Announcement to reclassify operations on this basis. The 2020 comparatives are unchanged from those presented in the Half Year Report 2021.

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

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

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

1 – Profit and earnings per share

	Note	2021 £m	2020 £m
UK & Ireland Life		**1,428**	1,907
UK & Ireland General Insurance		**356**	213
Canada		**406**	287
Aviva Investors		**41**	25
UK, Ireland, Canada and Aviva Investors		**2,231**	2,432
International investments		**97**	26
Corporate centre costs and Other operations	A2	**(379)**	(282)
Group debt costs and other interest	A3	**(315)**	(370)
Operating profit from continuing operations		**1,634**	1,806
Discontinued operations		**631**	1,355
Operating profit		**2,265**	3,161
Tax attributable to shareholders' profit		**(470)**	(634)
Non-controlling interests		**(71)**	(98)
Preference dividends and other[1]		**(17)**	(44)
Operating profit attributable to ordinary shareholders		**1,707**	2,385
Operating earnings per share		**43.8p**	60.8p
IFRS profit for the year[2]		**2,036**	2,910
Basic earnings per share		**50.1p**	70.2p

1 Other includes coupon payments in 2020 in respect of the direct capital instrument (DCI). On 27 July 2020, the instrument was redeemed in full.
2 See note A1 for the reconciliation of Group adjusted operating profit to IFRS profit for the year.

UK, Ireland, Canada and Aviva Investors operating profit decreased by 8% to £2,231 million (2020: £2,432 million) with strong performance from our General Insurance markets and a reduced impact from COVID-19, more than offset by lower operating profit in UK & Ireland Life.

In the UK & Ireland Life businesses, operating profit decreased by 25% to £1,428 million (2020: £1,907 million), driven by lower BPA margins which were adversely impacted by low spreads compared to the higher corporate spreads available in 2020 and a lower net gain from other operating profit including assumption changes. Savings & Retirement operating profit increased by 24% to £147 million (2020: £119 million) driven by growth in revenue from AUM which increased to £152.2 billion (2020: £128.3 billion) as a result of record net flows and favourable market movements. Protection & Health operating profit also increased, benefitting from improved new business profitability and cost efficiency.

In the UK & Ireland General Insurance businesses, operating profit increased to £356 million (2020: £213 million). In the UK, general insurance operating profit increased to £318 million (2020: £182 million). The UK saw improved underwriting performance, reduced COVID-19 related claims and higher weather costs compared to a benign 2020. Commercial lines continued to benefit from profitable new business growth and strong rate momentum, and personal lines benefitted from growth in higher margin retail business. These were partly offset by a reduction in long-term investment return due to reduced yields.

In Canada, operating profit increased to £406 million (2020: £287 million) due to actions around pricing, indemnity management, risk selection and reduced business interruption claims related to COVID-19. Personal lines performance remains positive with profitability significantly better than historic levels. In commercial lines, the underwriting improvement is primarily due to lower COVID-19 related claims and the significant rating actions, which have improved the loss ratio.

Aviva Investors operating profit increased to £41 million (2020: £25 million), or £58 million (2020: £25 million) excluding cost reduction implementation costs, driven by a combination of revenue and cost reduction initiatives in the year.

International investments operating profit increased to £97 million (2020: £26 million) largely due to the inclusion of our joint venture in Singapore (following its formation on 30 November 2020). Singapore had a strong performance arising from a new long-term care product in 2021.

Operating profit from discontinued operations decreased to £631 million (2020: £1,355 million) driven by the completion of disposals in 2020 and 2021. We have now completed the disposals of all discontinued operations which concludes the refocus of our portfolio and our divestment programme.

IFRS profit for the year has decreased to £2,036 million (2020: £2,910 million) and basic earnings per share has decreased to 50.1p (2020: 70.2p). Basic earnings per share from continuing operations has decreased to 7.7p (2020: 35.7p) primarily due to lower operating profit combined with non-operating items, including adverse investment variances and economic assumption changes of £1,039 million (2020: positive impact of £6 million). Basic earnings per share from discontinued operations is 42.4p (2020: 34.5p) driven by the profit on disposal and remeasurement of these businesses, of £1,550 million (2020: £713 million) following the completion of our divestment programme.

2 – Cash and Centre liquidity
2.i – Cash remittances

The table below reflects actual remittances received by the Group from our markets, 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.

	2021 £m	2020 £m
UK & Ireland Life[1,2]	**1,219**	1,007
UK & Ireland General Insurance[1,3]	**261**	171
Canada[1,4]	**156**	131
Aviva Investors	**15**	50
UK, Ireland, Canada and Aviva Investors	**1,651**	1,359
International investments	**11**	6
Cash remittances from continuing operations	**1,662**	1,365
Discontinued operations[1] and Other	**237**	135
Total	**1,899**	1,500

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 UK & Ireland Life 2020 cash remittances include £250 million received in February 2021 in respect of 2020 activity. In 2021 the equivalent dividend was received in December 2021.
3 UK & Ireland General Insurance 2020 cash remittances include £74 million received in January 2021 in respect of 2020 activity. In 2021 the equivalent dividend was received in December 2021.
4 Canada General Insurance 2020 cash remittances include £115 million received in January 2021 in respect of 2020 activity. In 2021 the equivalent dividend was received in December 2021.

Cash remittances from our continuing operations are higher in 2021 compared to 2020 largely due to the decision in 2020 to retain cash in our subsidiaries to maintain balance sheet strength given the unprecedented economic and market uncertainty related to COVID-19. Cash remittances from Discontinued operations and Other were £237 million, of which £175 million was remitted by Poland prior to disposal.

2.ii – Centre liquidity

Centre liquidity comprises cash and liquid assets. Excess centre cash flow represents cash remitted by our businesses to the Group centre less central operating expenses and debt financing costs. It is an important measure of the cash that is available to pay dividends, reduce debt or invest back into our businesses.

	2021 £m	2020 £m
Cash remittances	**1,899**	1,500
External interest paid	**(388)**	(454)
Internal interest paid	**(40)**	(60)
Central spend	**(432)**	(241)
Other operating cash flows[1]	**62**	70
Excess centre cash inflow	**1,101**	815
Ordinary dividend	**(841)**	(511)
Net (reduction)/advance in borrowings	**(2,035)**	105
External disposal proceeds	**6,150**	1,253
Share buyback	**(853)**	—
Net reduction in internal borrowings	**(708)**	(27)
Other non-operating cash flows[2]	**(255)**	82
Movement in centre liquidity	**2,559**	1,717
Centre liquidity as at end of February 2022 and 2021 respectively	**6,644**	4,085

1 Other operating cash flows include pension scheme funding and group tax relief payments.
2 Other non-operating cash flows include capital injections, other investment cash flows and transaction costs paid on disposals.

The increase of £2,559 million in centre liquidity from 2020 is primarily driven by the proceeds on external disposal activity in the year of £6,150 million and the cash remittances £1,899 million offset by a repayment of external borrowings in the year of £2,035 million, ordinary dividends to external shareholders of £841 million and the shares purchased in buyback of £853 million.

3 – Controllable costs

	2021 £m	2020 £m
Excluding cost reduction implementation and IFRS 17 costs		
UK & Ireland Life	**1,102**	1,137
UK & Ireland General Insurance	**713**	774
Canada	**399**	397
Aviva Investors	**345**	356
UK, Ireland, Canada and Aviva Investors	**2,559**	2,664
Corporate centre costs and Other operations[1]	**297**	260
	2,856	**2,924**
Cost reduction implementation and IFRS 17 costs	**240**	107
Continuing operations	**3,096**	**3,031**
Discontinued operations	**590**	904
Group controllable costs	**3,686**	3,935

1 Other operations includes costs in respect of non-insurance operations relating to Europe and Asia which are excluded from our cost savings target as these markets were not included in the 2018 baseline. These costs are expected to run-off in 2022. Also excluded when compared to the 2018 baseline is the impact of foreign exchange rate movements. These impacts have a net of £2 million (2020: £7 million) costs impact when compared to the 2018 baseline.

Controllable costs from continuing operations (excluding cost reduction implementation and IFRS 17 costs) have reduced by £68 million to £2,856 million (2020: £2,924 million). This reflects our relentless focus on operating efficiency with the decrease driven by planned savings mainly due to lower staff costs, lower property costs and other operational savings.

The reduction in controllable costs in UK & Ireland Life reflects the progress on cost savings achieved during 2021, particularly in relation to reductions in facilities and staff costs. The UK & Ireland General Insurance costs decreased as a result of ongoing cost reduction actions, particularly from the simplification of personal lines business and reduction in IT costs, partially offset by investment to support profitable growth. Costs in Canada have remained broadly consistent with 2020 levels due to cost savings arising from lower operational costs offset by continued investment in pricing and IT infrastructure. The decrease in Aviva Investors reflects continued focus on cost reduction actions and streamlining of the business. The increase in Corporate centre costs and Other operations is mainly due to increased investment in finance and risk improvement projects.

The decrease in costs from discontinued operations is due to disposals which completed during 2020 and 2021, resulting in reduced costs incurred from the point that the operations were disposed from the Group.

4 – Solvency II performance
4.i – Solvency II operating own funds generation

Solvency II operating own funds generation is used by the Group to assess sustainable growth across the UK, Ireland and Canada.

	Solvency II operating own funds generation				
2021	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Management actions and other[1] £m	Total £m
UK & Ireland Life	**360**	**314**	**—**	**279**	**953**
UK & Ireland General Insurance	**—**	**—**	**330**	**9**	**339**
Canada	**—**	**—**	**326**	**6**	**332**
Aviva Investors	**—**	**—**	**36**	**—**	**36**
UK, Ireland, Canada and Aviva Investors	**360**	**314**	**692**	**294**	**1,660**
International investments	**63**	**62**	**—**	**(1)**	**124**
Corporate centre costs and Other	**—**	**(3)**	**(340)**	**1**	**(342)**
Group external debt costs	**—**	**—**	**(255)**	**—**	**(255)**
Continuing operations	**423**	**373**	**97**	**294**	**1,187**
Discontinued operations	**90**	**321**	**45**	**2**	**458**
Solvency II operating own funds generation at 31 December	**513**	**694**	**142**	**296**	**1,645**

1 Management actions and other includes the impact of capital actions, non-economic assumption changes and other non-recurring items.

	Solvency II operating own funds generation				
2020	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Management actions and other[1] £m	Total £m
UK & Ireland Life	449	273	—	335	1,057
UK & Ireland General Insurance	—	—	344	(15)	329
Canada	—	—	284	3	287
Aviva Investors	—	—	26	—	26
UK, Ireland, Canada and Aviva Investors	449	273	654	323	1,699
International investments	20	45	—	(2)	63
Corporate centre costs and Other[2]	—	(7)	(262)	(9)	(278)
Group external debt costs	—	—	(296)	—	(296)
Continuing operations	469	311	96	312	1,188
Discontinued operations[2]	229	410	170	(306)	503
Solvency II operating own funds generation at 31 December	698	721	266	6	1,691

1 Management actions and other includes the impact of capital actions, non-economic assumption changes and other non-recurring items.
2 Following a review of Group adjustments in respect of discontinued operations, comparative amounts for the 12 months ended 31 December 2020 have been amended to reclassify these as Discontinued operations from Corporate centre costs and Other.

Solvency II operating own funds generation has decreased by £46 million to £1,645 million (2020: £1,691 million).

UK, Ireland, Canada and Aviva Investors Solvency II operating own funds generation decreased by £39 million to £1,660 million (2020: £1,699 million).

In the UK & Ireland Life businesses, Solvency II operating own funds generation has decreased by £104 million to £953 million (2020: £1,057 million) mainly due to a reduction in margins on BPA business primarily as a result of lower spreads available and a lower impact from Management actions and other operating own funds generation.

In the UK & Ireland General Insurance businesses, Solvency II operating own funds generation has increased by £10 million to £339 million (2020: £329 million). This is primarily due to improved underlying performance in commercial lines and lower expenses reflecting the simplification of our personal lines business, reduction in IT costs and lower one-off expenses compared to 2020. These improvements were partly offset by higher weather costs from the July flooding in the UK and a reduction in the long-term investment return due to a combination of de-risking in 2020 in response to COVID-19 and lower yields.

In Canada, Solvency II operating own funds generation has increased by £45 million to £332 million (2020: £287 million), mainly due to reduced business interruption claims related to COVID-19 and beneficial prior year reserve developments.

Solvency II operating own funds generation from our International investments has increased by £61 million to £124 million (2020: £63 million), largely due to the inclusion of our joint venture in Singapore (following its formation on 30 November 2020) where there was strong performance arising from a new long-term care product and also growth in China.

Solvency II operating own funds generation from Discontinued operations has decreased by £45 million to £458 million (2020: £503 million), primarily due to disposals in 2020 and 2021.

4.ii – Solvency II return on capital/equity

Solvency II return on capital/equity measures return generated on shareholder capital at our market level and Group level and is used by the Group to assess performance, as we look to transform our business and deliver long-term value for our shareholders.

Solvency II return on equity has been amended following a review of the basis of preparation. In the numerator, Transitional Measures on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis and the denominator has been adjusted to exclude excess capital above our target Solvency II shareholder cover ratio. This approach improves comparability of Solvency II return across Life and General Insurance business while removing distortions that would otherwise arise where the Group is temporarily holding excess capital.

2021	Solvency II OFG (post TMTP adjustment) £m	Opening own funds £m	Solvency II return on capital %
Market Solvency II return on capital			
UK & Ireland Life	**996**	**15,073**	**6.6 %**
UK & Ireland General Insurance[1]	**339**	**2,401**	**14.1 %**
Canada	**332**	**1,534**	**21.6 %**
Aviva Investors	**36**	**385**	**9.3 %**
UK, Ireland, Canada and Aviva Investors	**1,703**	**19,393**	**8.8 %**
International investments	**124**	**909**	**13.6 %**
Discontinued operations	**458**	**6,362**	**7.2 %**

2021	Solvency II OFG (post TMTP adjustment) £m	Opening own funds[2] £m	Solvency II return on equity %
Group Solvency II return on equity			
Group Solvency II return on equity at 31 December	**1,648**	**14,574**	**11.3 %**
Group Solvency II return on equity at 31 December on a continuing basis[3]	**1,215**	**11,320**	**10.7 %**

1 For UK General Insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets. This is only applicable to UK General Insurance Solvency II return on capital and not to the aggregated Group Solvency II return on equity measure.
2 Opening own funds for Group Solvency II return on equity reflects opening unrestricted tier 1 shareholder Solvency II own funds adjusted to exclude excess capital above our target Solvency II shareholder cover ratio.
3 Group Solvency II return on equity on a continuing basis excludes our discontinued operations. Further details can be found in the "Other Information: Alternative Performance Measures" section.

2020	Restated Solvency II OFG (post TMTP adjustment) £m	Opening own funds £m	Restated Solvency II return on capital[1] %
Market Solvency II return on capital			
UK & Ireland Life	1,101	14,241	7.7 %
UK & Ireland General Insurance[2]	329	2,509	13.1 %
Canada	287	1,442	19.9 %
Aviva Investors	26	413	6.3 %
UK, Ireland, Canada and Aviva Investors	1,743	18,605	9.4 %
International investments	63	643	9.8 %
Discontinued operations[3]	503	7,422	6.8 %

2020	Restated Solvency II OFG (post TMTP adjustment) £m	Opening own funds[4] £m	Restated Solvency II return on equity[1] %
Group Solvency II return on equity			
Group Solvency II return on equity at 31 December	1,663	13,468	12.3 %
Group Solvency II return on equity at 31 December on a continuing basis[5]	1,253	10,721	11.7 %

1 Following a review of the basis of preparation of Group Solvency II return on equity and Market Solvency II return on capital, comparative amounts for the year ended 31 December 2020 have been restated. In the numerator, Transitional Measure on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis and, for Group Solvency II return on equity only, the denominator has been adjusted to exclude excess capital above our target Solvency II shareholder cover ratio. Further details can be found in the "Other Information: Alternative Performance Measures" section.
2 For UK General Insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets. This is only applicable to UK General Insurance Solvency II return on capital and not to the aggregated Group Solvency II return on equity measure.
3 Following a review of Group adjustments in respect of discontinued operations, comparative amounts for the 12 months ended 31 December 2020 have been amended to reclassify these as Discontinued operations from Corporate centre costs and Other. The change has no impact on the Group's Solvency II return on equity.
4 Opening own funds for Group Solvency II return on equity reflects opening unrestricted tier 1 shareholder Solvency II own funds adjusted to exclude excess capital above our target Solvency II shareholder cover ratio.
5 Group Solvency II return on equity on a continuing basis excludes our discontinued operations. Further details can be found in the "Other Information: Alternative Performance Measures" section.

Solvency II RoE has decreased by 1.0pp to 11.3% (2020: 12.3%) over 2021. Whilst Solvency II operating own funds generation is stable over the period, Solvency II RoE reduced by 0.9pp due to the impact of lower interest rates in 2020 on the 2021 opening capital position.

4.iii – Solvency II operating capital generation

Solvency II operating capital generation (Solvency II 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 businesses, which in turn, supports the Group's dividend as well as funding further investment to generate sustainable growth.

	Solvency II operating capital generation					Of which:	
2021	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Management actions and other[1] £m	Total OCG £m	Own funds OCG £m	SCR OCG £m
UK & Ireland Life	(84)	873	—	430	1,219	953	266
UK & Ireland General Insurance	—	—	322	(26)	296	339	(43)
Canada	—	—	353	(15)	338	332	6
Aviva Investors	—	—	53	—	53	36	17
UK, Ireland, Canada and Aviva Investors	(84)	873	728	389	1,906	1,660	246
International investments	34	18	—	3	55	124	(69)
Corporate centre costs and Other	—	(3)	(263)	(76)	(342)	(342)	—
Group external debt costs	—	—	(255)	—	(255)	(255)	—
Continuing operations	(50)	888	210	316	1,364	1,187	177
Discontinued operations	(381)	528	49	1	197	458	(261)
Group Solvency II operating capital generation	(431)	1,416	259	317	1,561	1,645	(84)

1 Management actions and other includes the impact of capital actions, non-economic assumption changes and other non-recurring items.

	Solvency II operating capital generation					Of which:	
2020	Impact of new business (life) £m	Earnings from existing business (life) £m	Non-life capital generation £m	Management actions and other[1] £m	Total OCG £m	Own funds OCG £m	SCR OCG £m
UK & Ireland Life	(76)	787	—	548	1,259	1,057	202
UK & Ireland General Insurance	—	—	310	47	357	329	28
Canada	—	—	289	(27)	262	287	(25)
Aviva Investors	—	—	29	—	29	26	3
UK, Ireland, Canada and Aviva Investors	(76)	787	628	568	1,907	1,699	208
International investments	(5)	12	—	(3)	4	63	(59)
Corporate centre costs and Other[2]	—	(7)	(306)	(52)	(365)	(278)	(87)
Group external debt costs	—	—	(296)	—	(296)	(296)	—
Continuing operations	(81)	792	26	513	1,250	1,188	62
Discontinued operations[2]	(135)	666	146	5	682	503	179
Group Solvency II operating capital generation	(216)	1,458	172	518	1,932	1,691	241

1 Management actions and other includes the impact of capital actions, non-economic assumption changes and other non-recurring items.
2 Following a review of Group adjustments in respect of discontinued operations, comparative amounts for the 12 months ended 31 December 2020 have been amended to reclassify these as Discontinued operations from Corporate centre costs and Other.

Solvency II OCG has decreased by £371 million to £1,561 million (2020: £1,932 million).

UK, Ireland, Canada and Aviva Investors Solvency II OCG reduced slightly by £1 million to £1,906 million (2020: £1,907 million).

In the UK & Ireland Life businesses, Solvency II OCG reduced by £40 million to £1,219 million (2020: £1,259 million) primarily due to lower Management actions and other OCG than in 2020. Management actions and other OCG in 2021 includes the impact of additional equity hedging and the beneficial impact of longevity assumption changes while 2020 included the beneficial impact of assumption changes, a change to the mix of business included in our reinsurance vehicle and de-risking activity which took place in response to COVID-19. New business strain was stable despite lower BPA margins reflecting a lower proportion of corporate bonds and existing business benefited from positive experience on our Protection and Health business.

In the UK & Ireland General Insurance businesses, Solvency II OCG has reduced by £61 million to £296 million (2020: £357 million). The increase in Solvency II operating own funds generation due to strong underlying performance is more than offset by increases in capital requirements due to re-risking activity in the final quarter of 2021 (2020 Solvency II OCG benefitted from SCR reductions following de-risking in 2020 also in response to COVID-19).

In Canada, Solvency II OCG has increased by £76 million to £338 million (2020: £262 million), mainly due to a lower COVID-19 impact, beneficial prior year reserve developments and an improved profit outlook.

Solvency II OCG in respect of our International investments increased by £51 million to £55 million (2020: £4 million) for the year ended 31 December 2021, largely due to growth in China and the inclusion of our joint venture in Singapore where there was strong performance.

Solvency II OCG in respect of Discontinued operations reduced by £485 million to £197 million (2020: £682 million) for the year ended 31 December 2021 due to disposals over 2020 and 2021.

4.iv – Solvency II future surplus emergence

Emergence of surplus – UK & Ireland Life (undiscounted)	Full year 2021 £bn[1]	Full year 2020 £bn
Year 1	**0.9**	0.9
Year 2	**0.9**	0.9
Year 3	**0.8**	0.8
Year 4	**0.7**	0.7
Year 5	**0.6**	0.6
Year 6	**0.5**	0.6
Year 7	**0.5**	0.5
Year 8	**0.4**	0.4
Year 9	**0.4**	0.4
Year 10	**0.3**	0.4
Year 11-15	**2.8**	2.6
Year 16-20	**2.0**	2.1

1 For 2021 the scope of business included within Solvency II future surplus emergence has been expanded to include Platform business in UK Life. The comparative for 2020 has not been restated on materiality grounds.

The table above shows the expected future emergence of Solvency II surplus from the existing long-term in-force life business and provides an indication of our expected Solvency II OCG from this business in future periods.

The projection is a static analysis as at a point in time and hence it does not include future new business or the potential impact of active management of the business (for example, active management of market, demographic and expense risk through investment, hedging, risk transfer, operational risk and expense management). It is also based on a linear run-off of the TMTP. These items may affect the actual amount of Solvency II OCG earned from existing business in future periods.

5 – Solvency II capital position
5.i – Solvency II position (shareholder view)

Shareholder view cover ratio	**2021 £m**	2020 £m
Own funds	**22,150**	25,770
Solvency capital requirement	**(9,076)**	(12,770)
Estimated Solvency II surplus at 31 December	**13,074**	13,000
Estimated Solvency II shareholder cover ratio	**244 %**	202 %

The estimated Solvency II shareholder cover ratio is 244% at 31 December 2021. 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 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 of £2.2 billion at 31 December 2021 (2020: £2.5 billion) and staff pension schemes in surplus of £1.2 billion at 31 December 2021 (2020: £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 notional reset of the 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 31 December 2021 Solvency II position is based on a formal reset of the TMTP, in line with the requirement to reset the TMTP at least every two years and hence no adjustment is required. The 31 December 2020 Solvency II position includes a notional reset of £0.6 billion.
- Adjustments are made if the Solvency II shareholder cover ratio does not fully reflect the effect of future regulatory changes that are known as at each reporting date. These adjustments are made in order to show a more representative view of the Group's solvency position. No adjustments for future regulatory changes are included in the 31 December 2021 Solvency II position or the 31 December 2020 Solvency II position.

	31 December 2021			31 December 2020		
	Own funds £m	**SCR £m**	**Surplus £m**	Own funds £m	SCR £m	Surplus £m
Estimated Solvency II regulatory surplus	**25,573**	**(12,499)**	**13,074**	29,262	(16,441)	12,821
Fully ring-fenced with-profit funds	**(2,205)**	**2,205**	**—**	(2,492)	2,492	—
Staff pension schemes in surplus	**(1,218)**	**1,218**	**—**	(1,179)	1,179	—
Notional reset of TMTP	**—**	**—**	**—**	564	—	564
PPE[1]	**—**	**—**	**—**	(385)	—	(385)
Estimated Solvency II shareholder surplus	**22,150**	**(9,076)**	**13,074**	25,770	(12,770)	13,000

1 French insurers are permitted to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At 31 December 2020 PPE of £0.4 billion is included within Group regulatory own funds but remains excluded from the shareholder position as agreed with the regulator. At 31 December 2021 this is no longer included following the disposal of France.

5.ii – Movement in Solvency II surplus

Shareholder view movement	2021 Own funds £m	2021 SCR £m	2021 Surplus £m	2020 Own funds £m	2020 SCR £m	2020 Surplus £m
Group Solvency II surplus at 1 January	**25,770**	**(12,770)**	**13,000**	24,548	(11,910)	12,638
Opening restatements[1]	—	—	—	78	(202)	(124)
Operating capital generation	**1,645**	**(84)**	**1,561**	1,691	241	1,932
Non-operating capital generation	**(1,310)**	**1,156**	**(154)**	(741)	(963)	(1,704)
Dividends[2]	**(874)**	—	**(874)**	(549)	—	(549)
(Repayment)/issue of debt	**(1,506)**	—	**(1,506)**	257	—	257
Share buyback	**(1,000)**	—	**(1,000)**	—	—	—
Disposals completed	**(575)**	**2,622**	**2,047**	486	64	550
Estimated Solvency II surplus at 31 December	**22,150**	**(9,076)**	**13,074**	25,770	(12,770)	13,000

1 Opening restatements allow for adjustments to the estimated position presented in the 2020 preliminary announcement and the final position in the 2020 Solvency and Financial Condition Report.
2 Dividends includes £17 million (2020: £17 million) of Aviva plc preference dividends and £21 million (2020: £21 million) of General Accident plc preference dividends, and £549 million for the final dividend in respect of the 2020 financial year and £287 million for the interim dividends in respect of the 2021 financial year.

The estimated Solvency II surplus is £13,074 million at 31 December 2021 (2020: £13,000 million), with a Solvency II shareholder cover ratio of 244% (2020: 202%). The increase in surplus since 31 December 2020 is mainly due to disposals of France, Italy, Poland, Turkey and Vietnam and operating capital generation, largely offset by repayment of debt, share-buy back and the payment of the 2020 dividend and 2021 interim dividend. Non-operating capital generation includes the impact of market movements which result in a broadly consistent reduction in both Own funds and SCR due to our hedging strategy.

5.iii – Diversified Solvency Capital Requirement (SCR) analysis

	31 December 2021 £bn	31 December 2020 £bn
Credit risk	**2.1**	3.2
Equity risk	**1.1**	1.6
Interest rate risk	**0.0**	0.0
Other market risk	**1.0**	1.8
Life insurance risk	**2.9**	3.4
General insurance risk	**0.8**	0.9
Operational risk	**0.9**	1.1
Other risk	**0.3**	0.8
Total	**9.1**	12.8

The SCR has decreased by £3.7 billion to £9.1 billion since 31 December 2020 primarily due to disposals and interest rate rises over the period which affect several risks through the impact of discounting.

5.iv – Solvency II sensitivities

Sensitivity analysis of Solvency II shareholder surplus and cover ratio

The following sensitivity analysis of Solvency II shareholder surplus and cover ratio 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 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.

The table below shows the absolute change in Solvency II shareholder surplus and cover ratio under each sensitivity, e.g. a 2pp positive impact would result in a Solvency II shareholder cover ratio of 246%.

Sensitivities		Impact on surplus 31 December 2021 £bn	Impact on shareholder cover ratio 31 December 2021	Impact on surplus 31 December 2020 £bn	Impact on shareholder cover ratio 31 December 2020
Changes in economic assumptions	25 bps increase in interest rate	**0.2**	**6 pp**	0.3	5 pp
	50 bps increase in interest rate	**0.3**	**12 pp**	0.6	9 pp
	100 bps increase in interest rate	**0.4**	**21 pp**	0.8	15 pp
	25 bps decrease in interest rate	**(0.2)**	**(6)pp**	(0.3)	(5)pp
	50 bps decrease in interest rate	**(0.3)**	**(11)pp**	(0.8)	(11)pp
	50 bps increase in corporate bond spread[1]	**0.2**	**7 pp**	0.0	2 pp
	100 bps increase in corporate bond spread[1]	**0.4**	**15 pp**	(0.1)	3 pp
	50 bps decrease in corporate bond spread[1]	**(0.4)**	**(11)pp**	(0.1)	(3)pp
	Credit downgrade on annuity portfolio[2]	**(0.5)**	**(9)pp**	(0.5)	(6)pp
	10% increase in market value of equity	**0.1**	**— pp**	0.2	1 pp
	25% increase in market value of equity	**0.3**	**1 pp**	0.5	3 pp
	10% decrease in market value of equity	**(0.1)**	**— pp**	(0.2)	(1)pp
	25% decrease in market value of equity	**(0.3)**	**(1)pp**	(0.6)	(5)pp
	20% increase in value of commercial property	**0.3**	**6 pp**	0.8	8 pp
	20% decrease in value of commercial property	**(0.5)**	**(9)pp**	(1.1)	(11)pp
	20% increase in value of residential property	**0.4**	**8 pp**	0.6	6 pp
	20% decrease in value of residential property	**(0.6)**	**(10)pp**	(0.7)	(7)pp
Changes in non-economic assumptions	10% increase in maintenance and investment expenses	**(0.7)**	**(11)pp**	(1.0)	(9)pp
	10% increase in lapse rates	**(0.3)**	**(3)pp**	(0.3)	(2)pp
	5% increase in mortality/morbidity rates – life assurance	**(0.2)**	**(2)pp**	(0.2)	(2)pp
	5% decrease in mortality rates – annuity business	**(1.4)**	**(21)pp**	(1.6)	(16)pp
	5% increase in gross loss ratios	**(0.2)**	**(3)pp**	(0.3)	(3)pp

1 The corporate bond spread sensitivity is applied such that even though movements vary by rating and duration consistent with the approach in the solvency capital requirement, the weighted average spread movement equals the headline sensitivity. Fundamental spreads remain unchanged.
2 An immediate full letter downgrade on 20% of the annuity portfolio credit assets (e.g. from AAA to AA, from AA to A).

The sensitivity of Solvency II shareholder surplus to assumption changes has generally reduced over the period primarily due to the disposal of France, Italy and Poland. The exception is corporate bond spreads, and in particular the corporate bond spread widening sensitivity, where the beneficial impact reflects that the disposed entities were adversely exposed to corporate bond spreads widening whereas the Group is adversely exposed to corporate bond spreads narrowing. The cover ratio impacts are temporarily amplified by the excess capital position (Note 5.vii illustrates our sensitivities post capital deployment).

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 risks 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.

5.v – Solvency II net asset value

	2021 £m	pence per share[1]	2020 £m	pence per share[1]
Solvency II shareholder unrestricted Tier 1 own funds at 1 January	**17,358**	**442 p**	16,578	423 p
Opening restatements[2]	**—**	**— p**	78	2 p
Operating own funds generation	**1,645**	**44 p**	1,691	43 p
Non-operating capital generation	**(1,310)**	**(35)p**	(741)	(19)p
Dividends[3]	**(874)**	**(23)p**	(549)	(14)p
Share buyback	**(1,000)**	**(8)p**	—	— p
Disposals completed	**(575)**	**(15)p**	486	12 p
Impact of changes to the value of subordinated liabilities	**480**	**13 p**	(167)	(4)p
Impact of changes to the value of net deferred tax assets	**(27)**	**(1)p**	(18)	(1)p
Estimated Solvency II shareholder unrestricted Tier 1 own funds at 31 December	**15,697**	**417 p**	17,358	442 p

1 Number of shares in issue as at 31 December 2021 was 3,766 million (2020: 3,928 million).
2 Opening restatements allows for adjustments made to the estimated position presented in the 2020 preliminary announcement and the final position in the 2020 Solvency Financial Condition Report.
3 Dividends includes £17 million (2020: £17 million) of Aviva plc preference dividends and £21 million (2020: £21 million) of General Accident plc preference dividends, £549 million for the final dividends in respect of the 2020 financial year (2020: £511 million in respect of the 2019 and 2020 financial years) and £287 million for the interim dividends in respect of the 2021 financial year.

Solvency II net asset value per share decreased by 25 pence to 417 pence per share (2020: 442 pence) as a result of the payment of the 2020 dividend and 2021 interim dividend, completed disposals, the share buyback and market movements over the period partially offset by the beneficial impacts from operating own funds generation and changes to the value of subordinated liabilities following increase in market interest rates.

5.vi – Solvency II regulatory own funds and Solvency II debt leverage ratio

Regulatory view	2021 £m	2020 £m
Solvency II regulatory debt[1]	**6,330**	8,316
Senior notes	**651**	1,112
Commercial paper	**50**	108
Total debt	**7,031**	9,536
Unrestricted Tier 1	**19,120**	20,850
Restricted Tier 1	**967**	1,317
Tier 2	**5,363**	6,740
Tier 3[2]	**123**	355
Estimated total regulatory own funds	**25,573**	29,262
Solvency II debt leverage[3]	**27%**	31%

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 31 December 2021 consist of £123 million net deferred tax assets (2020: £96 million). There is no subordinated debt included in Tier 3 regulatory own funds (2020: 259 million).
3 Solvency II debt leverage is calculated as the total debt as a proportion of total regulatory own funds plus commercial paper and senior notes.

Solvency II debt leverage ratio at 31 December 2021 is 27% (2020: 31%). The reduction is due to the redemption of £1.9 billion of subordinated debt and senior notes during the first half of 2021.

In March 2021 the Group completed a £1.0 billion tender offer and redeemed €185 million of the Group's 0.625% €500 million senior notes, €286 million of the Group's 1.875% €750 million senior notes, €349 million of the Group's 6.125% €650 million Tier 2 subordinated debt and £298 million of the Group's 6.125% £800 million restricted Tier 1 subordinated debt.

In May 2021 both the Group's 4.500% C$450 million Tier 3 subordinated notes and 12.000% £162 million subordinated Tier 2 notes reached their final maturities and were redeemed. In June 2021 the Group redeemed its 6.625% £450 million Tier 2 subordinated notes in full at the first call date.

5.vii - Solvency II post capital deployment

At 31 December 2021, Aviva's Solvency II shareholder surplus was £13.1 billion and Solvency II shareholder cover ratio was 244% (2020: £13 billion and 202% respectively).

The table shows the impact of the further capital return of £3.75 billion[1] (taking the total returned to shareholders to £4.75 billion), £1 billion further debt reduction over time and £75 million one-off payment in relation to our staff pension schemes as a result of our excess capital position.

				31 December 2021
Shareholder view	Own funds £bn	SCR £bn	Surplus £bn	Cover ratio
Estimated Solvency II shareholder cover ratio	22.2	(9.1)	13.1	244 %
Capital return	(3.75)	—	(3.75)	(41)%
Debt reduction	(1.0)	—	(1.0)	(11)%
Pension payment	(0.1)	—	(0.1)	(1)%
Estimated Solvency II shareholder cover ratio (post capital deployment)	**17.4**	**(9.1)**	**8.3**	**191 %**

Our 31 December 2021 Solvency II shareholder cover ratio post capital deployment is estimated at 191% (excluding the impact of the acquisition of Succession Wealth). We have also set out plans for reinvestment into the businesses to further accelerate growth. We will be investing £300 million over the next three years into growth. Any additional surplus above the top of our working capital range of 180% after allowing for our investment plans provides the opportunity to consider 'bolt-on' acquisitions that would complement our target growth areas.

Our 31 December 2021 Solvency II debt leverage ratio post capital deployment is estimated at 28%.

As a result of the capital deployment, the sensitivity of the Solvency II shareholder cover ratio to economic and non-economic assumptions typically reduces. The table shows the absolute change in Solvency II shareholder cover ratio under each sensitivity, e.g. a 2pp positive impact would result in a Solvency II shareholder cover ratio of 193%.

Sensitivities (post capital deployment)		Impact on surplus 31 December 2021 £bn	Impact on Shareholder cover ratio 31 December 2021
Changes in economic assumptions	25 bps increase in interest rate	0.2	5 pp
	50 bps increase in interest rate	0.3	9 pp
	100 bps increase in interest rate	0.4	15 pp
	25 bps decrease in interest rate	(0.2)	(4)pp
	50 bps decrease in interest rate	(0.3)	(8)pp
	50 bps increase in corporate bond spread[2]	0.2	5 pp
	100 bps increase in corporate bond spread[2]	0.4	11 pp
	50 bps decrease in corporate bond spread[2]	(0.4)	(8)pp
	Credit downgrade on annuity portfolio[3]	(0.5)	(8)pp
	10% increase in market value of equity	0.1	1 pp
	25% increase in market value of equity	0.3	2 pp
	10% decrease in market value of equity	(0.1)	— pp
	25% decrease in market value of equity	(0.3)	(2)pp
	20% increase in value of commercial property	0.3	5 pp
	20% decrease in value of commercial property	(0.5)	(8)pp
	20% increase in value of residential property	0.4	7 pp
	20% decrease in value of residential property	(0.6)	(9)pp
Changes in non-economic assumptions	10% increase in maintenance and investment expenses	(0.7)	(10)pp
	10% increase in lapse rates	(0.3)	(3)pp
	5% increase in mortality/morbidity rates – life assurance	(0.2)	(2)pp
	5% decrease in mortality rates – annuity business	(1.4)	(19)pp
	5% increase in gross loss ratios	(0.2)	(3)pp

1 Subject to Shareholder approval
2 The corporate bond spread sensitivity is applied such that even though movements vary by rating and duration consistent with the approach in the solvency capital requirement, the weighted average spread movement equals the headline sensitivity. Fundamental spreads remain unchanged.
3 An immediate full letter downgrade on 20% of the annuity portfolio credit assets (e.g. from AAA to AA, from AA to A)..

6 – Our Market performance

6.i – UK & Ireland Life

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Operating profit	**1,428**	1,907	(25)%	(25)%
Cash remittances	**1,219**	1,007	21 %	21 %
Controllable costs	**1,186**	1,181	— %	1 %
Excluding cost reduction implementation and IFRS 17 costs	**1,102**	1,137	(3)%	(3)%
Cost reduction implementation and IFRS 17 costs	**84**	44	91 %	91 %
New business				
VNB	**668**	675	(1)%	(1)%
PVNBP	**35,625**	29,258	22 %	22 %
Solvency II operating own funds generation	**953**	1,057	(10)%	(10)%
Solvency II return on capital[1]	**6.6%**	7.7%	(1.1)pp	(1.1)pp
Solvency II operating capital generation	**1,219**	1,259	(3)%	(3)%

1 Following a review of the basis of preparation of Solvency II return on capital, comparative amounts for the year ended 31 December 2020 have been restated. In the numerator, TMTP run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis. Further details can be found in the "Other Information: Alternative Performance Measures" section.

Overview

Aviva is the UK's largest insurer with a 25% share[1] of the UK life and savings market, over 11 million customers and significant scale of assets under management (AUM). We are the UK's only insurer able to provide customers with all their insurance, protection, savings & retirement needs. We aim to maintain and strengthen our leadership position in the market by leveraging the Aviva brand, widening our already strong distribution relationships, building on our data analytics and underwriting capability and providing broader access to Aviva Investors' investment solutions. UK & Ireland Life is committed to Aviva's social purpose and our position in the group is critical to delivery of Aviva's sustainability ambition.

Our savings, retirement and protection businesses help individuals save and achieve financial peace of mind through their workplace, advisers or by engaging directly with us. We provide corporate customers with de-risking solutions for their pension schemes and provide solutions to help promote wellbeing and health within their workforce.

In Ireland we are number four[2] in the market. Having successfully delivered a single product range to market, we are committed to making it easier for intermediaries to do business with Aviva.

Operating performance

Operating profit, new business and net flows

Operating profit	2021 £m	2020 £m	Sterling % change
Savings & Retirement	**147**	119	24 %
Annuities & Equity Release	**645**	815	(21)%
Protection & Health	**229**	189	21 %
Heritage	**319**	321	(1)%
Other[3]	**77**	469	(84)%
UK Life	**1,417**	1,913	(26)%
Ireland Life	**11**	(6)	283 %
Total	**1,428**	1,907	(25)%

UK & Ireland Life operating profit decreased by 25% to £1,428 million (2020: £1,907 million). Savings & Retirement operating profit increased by 24% driven by higher revenue from growth in AUM, and Protection & Health operating profit benefitted from improved new business profitability and cost efficiency. This was more than offset by lower BPA margins, which were adversely impacted by low spreads compared to the higher corporate spreads available in 2020, and a lower net gain from other operating profit including assumptions changes.

	VNB			PVNBP			New Business Margin	
New Business	2021 £m	2020 £m	Sterling % change	2021 £m	2020 £m	Sterling % change	2021 %	2020 %
Savings & Retirement and Other	**178**	140	27 %	**23,718**	17,777	33 %	**0.8 %**	0.8 %
Annuities & Equity Release	**280**	356	(21)%	**7,887**	7,508	5 %	**3.6 %**	4.7 %
Protection & Health	**188**	167	13 %	**2,374**	2,439	(3)%	**7.9 %**	6.8 %
Ireland Life	**22**	12	78 %	**1,646**	1,534	7 %	**1.3 %**	0.8 %
Total	**668**	675	(1)%	**35,625**	29,258	22 %	**1.9 %**	2.3 %

1 Association of British Insurers (ABI) – 9 months to 30 September 2021.
2 Aviva calculation derived from the Milliman Life and Pensions New Business 2020 Report, which is based on responses from a number of key companies within the Irish Life market.
3 Other represents changes in assumptions and modelling, non-recurring items and non-product specific overheads.

PVNBP increased by 22% to £35,625 million (2020: £29,258 million) reflecting strong growth in our Savings & Retirement business. VNB decreased by 1% to £668 million (2020: £675 million) with the positive impact of higher Savings & Retirement volumes being more than offset by lower BPA margins, as spreads available in the market were narrower than the high corporate spreads available in 2020.

Assets under management and net flows	Platform £m	Workplace £m	Individual pensions £m	Total Savings & Retirement £m	Annuities & Equity Release £m	Heritage £m	Other UK Life £m	Ireland Life £m	2021 Total UK & Ireland Life £m	2020 Total UK & Ireland Life £m
Assets under management at 1 January	34,432	80,982	12,844	**128,258**	74,771	84,707	**7,241**	12,104	**307,081**	**287,243**
Premiums and deposits, net of reinsurance (inflows)	8,560	10,464	368	**19,392**	4,350	886	**1,153**	1,131	**26,912**	**23,611**
Claims and redemptions, net of reinsurance (outflows)	(2,843)	(5,416)	(1,109)	**(9,368)**	(2,524)	(7,328)	**(572)**	(1,157)	**(20,949)**	**(18,430)**
Net flows	**5,717**	**5,048**	**(741)**	**10,024**	**1,826**	**(6,442)**	**581**	**(26)**	**5,963**	**5,181**
Market and other movements	2,952	9,768	1,205	**13,925**	(3,576)	3,907	**(1,176)**	(276)	**12,804**	**14,657**
Assets under management at 31 December	**43,101**	**95,798**	**13,308**	**152,207**	**73,021**	**82,172**	**6,646**	**11,802**	**325,848**	**307,081**

Net flows increased to £6.0 billion (2020: £5.2 billion) driven by Savings & Retirement net flows which increased to £10.0 billion (2020: £8.5 billion) due to strong growth in group pensions and platform new business, offset by higher outflows from Heritage. Total outflows have increased reflecting the larger asset base and lower level of outflows seen during the initial stages of the COVID-19 pandemic.

Savings & Retirement

Our Savings & Retirement business offers workplace pensions and retail savings products, through both intermediated and retail channels. Our products are supported by guidance and advice and offer access to open architecture asset solutions including Aviva Investors who provide expertise in multi-asset and Environmental, Social, and Governance (ESG) investing. Our new business is capital efficient, with profits being derived from asset management fees less costs. We have a competitive position in both workplace and retail markets, which have delivered diversified and resilient earnings and highly efficient customer acquisition into the Group.

Savings & Retirement net flows grew by 17% to £10.0 billion (2020: £8.5 billion) driven by strong performances in both Platform and Workplace. Platform inflows were 44% higher than 2020, growing to £8.6 billion (2020: £5.9 billion) with momentum from the first half of the year continuing into the second half. Workplace inflows grew by 16% to £10.5 billion (2020: £9.0 billion), benefitting from member growth and new scheme wins. Overall outflows were higher than in 2020 due to deferred withdrawals in the prior year resulting from COVID-19 driven market volatility. A combination of higher net flows and higher positive market movements helped to grow Savings & Retirement AUM to £152.2 billion (2020: £128.3 billion), driving increased revenues which led to operating profit growth of 24% to £147 million (2020: £119 million).

Annuities & Equity Release

Our Annuities & Equity Release business consists of BPA, individual annuities and equity release. Our products offer customers safe and secure income in their retirement and support employers in their desire to de-risk their pension schemes. We are the UK's largest provider of individual annuities[1], the second largest provider of BPAs[1],and we manage the UK's largest book of equity release mortgages[2]. Our Annuities & Equity Release products create synergies, with equity release assets being held to back annuity liabilities, alongside assets sourced by Aviva Investors. Profits are primarily driven by yields, and our focus on capital efficiency secures significant cash flows, which has allowed us to invest in, and grow, our BPA business.

Annuities & Equity Release PVNBP increased by 5% to £7,887 million (2020: £7,508 million) including BPA PVNBP which grew to £6,165 billion (2020: £5,955 million) despite a subdued market in the first half of the year. Individual annuity PVNBP grew by 4% to £1,030 million (2020: £991 million), whilst equity release PVNBP grew by 23% to £692 million (2020: £562 million) as the market rebounded sharply from 2020 when movement restrictions led to reduced activity.

Annuity margins were adversely impacted by lower corporate spreads available compared to 2020. This led to a decrease in VNB to £280 million (2020: £356 million) and was the main driver behind a reduction in operating profit of 21% to £645 million (2020: £815 million), which was also affected by lower expected return on assets supporting annuities.

Protection & Health

Aviva is the only provider of scale in the UK offering coverage across health, group protection and individual protection. We have a number two[1] position in the individual protection market, are second in the group protection market by book size[3], and we are third in the health[4] market. We have developed strong relationships with our intermediary partners, including financial advisers, estate agents and other third parties. We have invested for growth in these markets, focusing on our digital proposition and bringing new health & wellbeing products to market. Pricing and underwriting discipline as well as cost efficiency are key drivers for profitability in this sector.

Protection & Health PVNBP decreased by 3% to £2,374 million (2020: £2,439 million) largely due to a subdued group protection market, following a strong year in 2020 when several large schemes were written. Individual protection volumes grew compared to 2020, which was materially impacted by the first national lockdown, severely affecting the ability of our distribution partners to meet clients. Health volumes grew by 19% to £610 million (2020: £513 million) driven by positive reaction to our new Expert Select proposition.

An improved business mix combined with reduced costs in both health and individual protection generated growth in VNB of 13% to £188 million (2020: £167 million). These factors, plus improved group protection claims experience, led to an increase in Protection & Health operating profit of 21% to £229 million (2020: £189 million).

1 Association of British Insurers (ABI) – 9 months to 30 September 2021.
2 UK Finance data on UK mortgage lenders
3 Swiss Re Group Watch 2021.
4 LaingBuisson, Health Cover UK Market Report, 16th edition.

Heritage
Aviva has one of the largest back books in the UK, with AUM of £82 billion. We manage legacy pension and savings policies for approximately two million customers, honouring promises made over many years. Heritage is an important part of the Group as a predictable source of capital and cash as well as supporting our annuity and Savings & Retirement propositions and Aviva Investors. The Heritage business is in run-off, and profit is driven by effective management of AUM run-off and cost efficiencies.

Heritage operating profit was stable compared to the prior period at £319 million (2020: £321 million) with the impact of book run-off being offset by expense savings and other gains.

Ireland Life
Our core lines of business are protection and annuity business, pre and post retirement unit-linked contracts, as well as unit-linked savings and investments. We are the market leader in the income protection market, and the business has set an ambitious long-term target to become the market-leading intermediary provider.

Ireland Life PVNBP increased by 7% to £1,646 million (2020: £1,534 million) driven by strong sales of unit-linked and protection business, particularly income protection and group protection. This was partially offset by lower annuity sales reflecting the current low interest rate environment. VNB increased by 78% to £22 million (2020: £12 million) driven primarily by improvements in unit-linked and protection margins from our new single product offerings.

Operating profit was £11 million (2020: £(6) million operating loss) driven by reduced expenses, higher AMC income and improved claims experience. We continued to drive future improvements in our business through long-term cost reduction initiatives.

Other
Other operating profit of £77 million (2020: £469 million) includes a net positive benefit from assumption changes of £349 million, including a net positive longevity benefit of £266 million, improvements in base mortality of £52 million and other changes of £31million. The benefit from assumption changes has been offset in part by the cost of providing for rectification relating to protection benefits on a specific cohort of legacy unit-linked products, increased IFRS 17 costs, and a reduction in the carrying value of deferred acquisition costs driven by interest rate movements. In 2020, Other operating profit of £469 million included a net benefit from assumption changes of £466 million, consisting of a net positive longevity benefit of £390 million, expense reserve releases of £123 million and other smaller impacts.

Controllable costs
UK & Ireland Life controllable costs excluding cost reduction implementation and IFRS 17 costs decreased 3% to £1,102 million (2020: £1,137 million). The benefit from our cost reduction initiatives have more than offset the increase in operational costs driven by our growing asset base and investment in our brand and propositions. Total controllable costs also include £84 million (2020: £44 million) of project spend relating to long-term cost reduction initiatives and IFRS 17 implementation.

Cash remittances
Cash remitted to Group by UK & Ireland Life was £1,219 million (2020: £1,007 million), with the increase reflecting the decision in 2020 to retain cash in UK Life to maintain balance sheet strength given the unprecedented economic and market uncertainty related to COVID-19.

Solvency II operating performance

Operating own funds generation	2021 £m	2020 £m	Sterling % change
Savings & Retirement	**103**	102	1 %
Annuities & Equity Release	**392**	513	(24)%
Protection & Health	**132**	73	81 %
Heritage	**47**	14	236 %
Other[1]	**260**	387	(33)%
UK Life	**934**	1,089	(14)%
Ireland Life	**19**	(32)	159 %
Total	**953**	1,057	(10)%

1. Other represents changes in assumptions and modelling, non-recurring items and non-product specific overheads.

Solvency II operating own funds generation (OFG)
Solvency II OFG decreased to £953 million (2020: £1,057 million) due to the following:

- Savings & Retirement has remained stable as increased Solvency II OFG on existing business was offset by higher volumes of Platform new business where expenses are recognised up front but annual management charges are recognised as they are earned.
- Annuities & Equity Release decreased by 24% to £392 million (2020: £513 million) as BPA margins were adversely impacted by low spreads compared to the higher corporate spreads available in 2020.
- Protection & Health grew 81% to £132 million (2020: £73 million) including the impact of improved new business performance and favourable claims experience.
- Other reduced by 33% to £260 million (2020: £387 million) due to a lower level of management actions. 2020 included the beneficial impact of a change to the mix of business included in our reinsurance vehicle.

Solvency II return on capital

Solvency II return on capital decreased by 1.1pp to 6.6% (2020: 7.7%) primarily due to the reduction in operating own funds generation above, and higher opening own funds.

Solvency II operating capital generation (OCG)

Solvency II OCG decreased to £1,219 million (2020: £1,259 million) primarily due to lower Management actions and other OCG than in 2020. Management actions and other OCG in 2021 includes the impact of additional equity hedging and the beneficial longevity assumption changes while 2020 included the beneficial impact of assumption changes, a change to the mix of business included in our reinsurance vehicle and de-risking activity which took place in response to COVID-19.

6.ii – General Insurance: UK & Ireland and Canada

£m (unless otherwise stated)	UK & Ireland 2021	2020	Sterling % change	Constant currency %	Canada 2021	2020	Sterling % change	Constant currency %
Operating profit	**356**	213	67 %	68 %	**406**	287	42 %	42 %
COR	**94.3 %**	98.2 %	(3.9)pp		**90.7 %**	94.7 %	(4.0)pp	
GWP	**5,352**	5,051	6 %	6 %	**3,455**	3,271	6 %	6 %
Controllable costs	**735**	793	(7)%	(7)%	**402**	401	— %	— %
Excluding cost reduction implementation and IFRS 17 costs	713	774	(8)%	(8)%	399	397	1 %	1 %
Cost reduction implementation and IFRS 17 costs	22	19	16 %	16 %	3	4	(25)%	(25)%
Cash remittances	**261**	171	53 %	53 %	**156**	131	19 %	19 %
Solvency II operating own funds generation	**339**	329	3 %	3 %	**332**	287	16 %	16 %
Solvency II return on capital[1]	**14.1 %**	13.1 %	1.0 pp	1.1 pp	**21.6 %**	19.9 %	1.7 pp	1.5 pp
Solvency II operating capital generation	**296**	357	(17)%	(17)%	**338**	262	29 %	29 %

1 For UK general insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets.

Overview

Aviva is a leading insurer across the UK, Ireland and Canada general insurance markets. In the UK and Ireland, we provide insurance solutions to c.6 million customers, number one in the UK market and number three in Ireland[1]. Aviva Canada is the third largest Property & Casualty insurer in Canada with an 8% market share[2].

We are focused on growing our general insurance businesses and extending our leadership in the UK, Ireland and Canada. General insurance performance in 2021 has been very strong with improved results across all key performance metrics. The UK and Canada delivered the highest GWP in a decade through continued commercial lines growth, driven by strong new business and rate increases, while personal lines GWP was maintained through an increased market share and presence. Operating results benefitted from an improved underwriting performance, frequency benefits and a reduction in COVID-19 related claims compared to the prior year. This strong profitability has translated into improved Solvency II performance.

During 2021 we focused on executing our market strategies and growing our business, while dealing with the ongoing impact of the global COVID-19 pandemic, which is having an enduring impact on general insurance markets, principally impacting claims and economic activity. In the UK and Ireland, our strategy is to invest for profitable growth and to deliver on our ambition to be the clear market leader. In Canada, our strategy is to deliver sustainable growth, invest in industry leading capabilities, transform the service experience through digitisation, and disrupt the market with innovation.

UK & Ireland General Insurance

Operating performance

Operating profit and COR

Operating profit	2021 £m	2020 £m	Sterling % change
Underwriting result	**230**	63	265 %
Long-term investment return	**85**	132	(35)%
Other[3]	**3**	(13)	123 %
UK	**318**	182	75 %
Ireland	**38**	31	23 %
Total	**356**	213	67 %

COR	2021 %	2020 %	Change
Personal lines[4]	**94.6 %**	92.3 %	2.3 pp
Commercial lines[4]	**94.6 %**	106.4 %	(11.8)pp
UK	**94.6 %**	98.5 %	(3.9)pp
Ireland	**91.7 %**	95.2 %	(3.5)pp
Total	**94.3 %**	98.2 %	(3.9)pp

1 Aviva's estimates based on a combination of the 2020 ABI General Insurance Premium Distribution and competitor results
2 Canadian Property & Casualty market position source: Swiss Re, sigma No. 3/2021 from the Insurance Information Institute (www.iii.org)
3 Includes the result of non-insurance operations, unwind of discount rate and pension scheme net finance costs.
4 Following a reclassification of UK van insurance products from commercial lines to personal lines in 2021, comparative amounts for 2020 have been amended from those previously reported. The effect of this change on personal lines COR is a 0.1pp decrease for 2020 and a 0.7pp increase in commercial lines COR for 2020.

Overall UK & Ireland operating profit increased 67% to £356 million (2020: £213 million). The UK experienced improved underwriting performance and a reduction in COVID-19 related claims compared to the prior year, partly offset by lower frequency benefits in motor lines as we emerged from lockdown restrictions in the second half of the year. Weather experience in 2021 was close to our long-term average compared to a benign 2020. Commercial lines underwriting performance continued to benefit from profitable new business growth, high retention levels and strong rate momentum, and personal lines benefitted from growth in higher margin retail business. These improvements were partly offset by a £47 million reduction in long-term investment return due to reduced yields and a more cautious investment strategy in light of the uncertainties caused by COVID-19, although we have re-risked the portfolio in the fourth quarter of 2021, which will support investment returns into 2022.

UK COR improved 3.9pp to 94.6% (2020: 98.5%), driven by an improvement in Commercial lines COR of 11.8pp to 94.6% (2020: 106.4%) primarily as a result of a reduction in COVID-19 related claims, although it also benefitted from a profitable new business growth, strong retention and continued rate momentum. These improvements were partly offset by higher weather losses from the July flooding in the UK compared to benign 2020 weather experience. Personal lines COR of 94.6% (2020: 92.3%), was 2.3pp higher owing to lower frequency benefits in motor lines, partly offset by the benefits from growth in higher margin retail business and the ongoing simplification in personal lines, driving a lower expense ratio.

Ireland COR improved 3.5pp to 91.7% (2020: 95.2%), driven by an improvement in expense ratio as a result of management actions and lower one-off expenses, in addition to the favourable impact of COVID-19. 2021 saw a favourable experience from COVID-19 related motor frequency resulting from continuing lockdowns. Commercial lines COR improved 8.0pp to 94.2% (2020: 102.2%), largely driven by favourable COVID-19 impact, versus the adverse impact in 2020, and expense reduction. Personal lines COR of 89.5% (2020: 90.1%) was 0.6pp lower year-on-year with improved expense ratio and pricing initiatives offsetting the claims ratio impact from the continued motor market softening in Ireland.

Gross Written Premiums (GWP)

GWP	2021 £m	2020 £m	Sterling % Change
Personal lines[1]	**2,334**	2,377	(2)%
Commercial lines[1]	**2,609**	2,262	15 %
UK	**4,943**	4,639	7 %
Ireland	**409**	412	(1)%
Total	**5,352**	5,051	6 %

1 Following a reclassification of UK van insurance products from commercial lines to personal lines in 2021, comparative amounts for 2020 have been amended from those previously reported. The effect of this change on personal lines GWP is an increase of £76 million for 2020 with an equal and opposite decrease in commercial lines GWP.

In the UK, we achieved the highest GWP for a decade growing 7% to £4,943 million (2020: £4,639 million). Commercial lines GWP grew 15% to £2,609 million (2020: £2,262 million), reflecting the benefits of investment in underwriting talent, which led to strong new business growth and high retention levels as well as benefits from continued rate momentum. Within Commercial lines, there was a 20% increase in GWP in Global Corporate and Specialty (GCS), with growth across all lines of business and 11% growth in small and medium-sized enterprise (SME), led by mid-market and digital. Total Personal lines GWP of £2,334 million (2020: £2,377 million) was 2% lower, with 3% growth in retail being offset by lower sales through some of our distribution partners and very low demand for travel insurance in 2021. Retail growth benefitted from the successful launch of the Aviva brand on price comparison websites for motor and home, which helped to grow our market share, while we continued our disciplined approach to pricing and underwriting in a challenging motor insurance rating environment.

Ireland GWP decreased 1% to £409 million (2020: £412 million), an increase of 2% year-on-year on a constant currency basis. Personal lines GWP is 12% lower than 2020 largely due to a decrease in average motor market premiums. Our Direct to Consumer customer base grew over 2020 and saw strong retention across our Personal Lines business. We achieved strong growth in Commercial lines GWP which increased 14% to £206 million. The outperformance was driven by the launch of new products complementing our offering to customers (e.g. Financial Lines), the expansion into new classes of business allowing us to serve new clients, along with strong retention and supportive rate environment.

Controllable costs

Excluding cost reduction implementation and IFRS 17 costs, controllable costs in the UK decreased to £636 million (2020: £698 million), reflecting the simplification of our personal lines business and a reduction in IT costs through simplification of our IT structure. This reduction in costs against a backdrop of growing premiums has led to a decrease of 0.9pp in the expense ratio. We continue to support profitable growth by investing in commercial lines underwriting talent, marketing and brand activity. In Ireland, controllable costs decreased, due to reduced staff costs, ongoing cost management actions and non-repeat of one-off costs incurred in 2020, which was offset by increased investment as we transform the performance of the business.

Solvency II operating performance

Solvency II operating own funds generation (OFG) and Solvency II return on capital

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Solvency II operating own funds generation	**339**	329	3 %	3 %
Solvency II return on capital[1]	**14.1 %**	13.1 %	1.0 pp	1.1 pp

1 For UK general insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets.

Solvency II OFG in the UK and Ireland was £339 million (2020: £329 million), £10 million higher than the prior year primarily due to improved underlying performance, partially offset by higher weather costs and lower long term investment returns. Solvency II return on capital has increased to 14.1% (2020: 13.1%).

Solvency II operating capital generation (OCG)

£m	2021	2020	Sterling % change	Constant currency %
Solvency II operating capital generation	**296**	357	(17)%	(17)%

UK & Ireland Solvency II OCG decreased 17% to £296 million (2020: £357 million), primarily driven by increases in the SCR as a result of the asset re-risking into hedged equities undertaken in Q4 2021.

Cash remittances

£m	2021	2020	Sterling % change	Constant currency %
Cash remittances	**261**	171	53 %	53 %

Cash remittances to Group from the UK and Ireland were £261 million (2020: £171 million). Cash remittances in 2020 were reduced by the decision to retain cash in the subsidiaries to maintain balance sheet strength as a result of the increased uncertainty arising from the COVID-19 pandemic.

Canada

Operating performance

Operating profit and COR

Operating profit	2021 £m	2020 £m	Sterling % change	Constant currency %
Underwriting result	**293**	162	81 %	81 %
Long-term investment return	**117**	130	(10)%	(10)%
Other[1]	**(4)**	(5)	30 %	30 %
Total	**406**	287	42 %	42 %

COR	2021 %	2020 %	Change
Personal lines	**92.6 %**	87.2 %	5.4 pp
Commercial lines	**86.8 %**	110.2 %	(23.4)pp
Total	**90.7 %**	94.7 %	(4.0)pp

1 Includes the result of non-insurance operations, unwind of discount rate and pension scheme net finance costs.

During 2021, operating profit increased 42% to £406 million (2020: £287 million) due to reduced business interruption claims related to COVID-19, as well as actions around pricing, indemnity management and risk selection. Personal lines performance is unfavourable to prior year due to increased claims frequency in motor as COVID-19 restrictions eased and higher commissions from profit share agreements with our distributors. Despite this deterioration, profitability is still significantly better than historic levels and reflects claims frequency that is below the long-term average. In commercial lines, the underwriting improvement is primarily due to lower COVID-19 related claims and the significant rating actions, which have improved the loss ratio.

In 2021, the underwriting result was £293 million (2020: £162 million), mainly driven by strong premium increases in commercial lines, benefits from lower net claims incurred as a result of COVID-19, partially offset by a slightly higher contingent profit commission provision. Long-term investment return was lower by 10% mainly due to lower reinvestment yields and reduced dividend income.

COR improved to 90.7% (2020: 94.7%) due to an improvement in the underwriting result. Personal lines COR of 92.6% (2020: 87.2%) was 5.4pp higher year-on-year, driven by increased net claims incurred which includes higher catastrophic weather losses, and an increased contingent profit commission provision, partially offset by better pricing and underwriting. Commercial lines COR of 86.8% (2020: 110.2%) was 23.4pp lower year-on-year due to decreased claims, mostly as a result of COVID-19.

Gross Written Premiums (GWP)

GWP	2021 £m	2020 £m	Sterling % Change	Constant currency %
Personal lines	**2,187**	2,118	3 %	3 %
Commercial lines	**1,268**	1,153	10 %	10 %
Total	**3,455**	3,271	6 %	6 %

Canada GWP was £3,455 million (2020: £3,271 million), up 6% on a constant currency basis. In personal lines, GWP of £2,187 million (2020: £2,118 million) was higher despite rate reductions in Ontario motor applied towards the end of the prior year and in the current year. Commercial lines GWP increased to £1,268 million (2020: £1,153 million) mostly due to increased rate in the prevailing hard market, the strategic shift to mid-market, and higher policy retention.

Controllable costs

Excluding cost reduction implementation and IFRS 17 costs, controllable costs were £399 million (2020: £397 million), broadly in-line with prior year. Cost savings from initiatives taken in 2021 were offset by investments in our claims operational capabilities, investment in our pricing capabilities and the GCS business, and continued investment in our IT infrastructure.

Solvency II operating performance

Solvency II operating own funds generation (OFG) and Solvency II return on capital

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Solvency II operating own funds generation	**332**	287	16 %	16 %
Solvency II return on capital	**21.6 %**	19.9 %	1.7 pp	1.5 pp

Solvency II OFG in Canada increased to £332 million (2020: £287 million) mainly due to an improvement in operating profit, which translated into a Solvency II return on capital of 21.6% (2020: 19.9%).

Solvency II operating capital generation (OCG)

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Solvency II operating capital generation	**338**	262	29 %	29 %

Solvency II OCG in Canada increased to £338 million (2020: £262 million). This is mainly due to increased Solvency II OFG described above.

Cash remittances

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Cash remittances	**156**	131	19 %	19 %

Cash remittances to Group from Canada were £156 million (2020: £131 million), 19% higher than prior year due to increased profitability.

6.iii – Aviva Investors

£m (unless otherwise stated)	2021	2020	Sterling % change
Aviva Investors revenue	**403**	381	6 %
Controllable costs (excluding cost reduction implementation costs)	**(345)**	(356)	(3)%
	58	25	132 %
Cost reduction implementation costs	**(17)**	—	100 %
Operating profit	**41**	25	64 %
Cost income ratio	**86 %**	93 %	(7)pp
Cash remittances	**15**	50	(70)%
Net flows	**1.5 bn**	(1.1) bn	237 %
of which: External net flows	**3.3 bn**	1.4 bn	137 %
Assets under management[1]	**268 bn**	260 bn	3 %
Solvency II operating own funds generation	**36**	26	38 %
Solvency II return on capital	**9.3 %**	6.3 %	3.0 pp
Solvency II operating capital generation	**53**	29	83 %

1 Assets under management at 31 December 2020 have been re-presented to reflect movements in continued and discontinued business, and a re-classification of certain funds between internal and external

Overview

Aviva Investors is a global asset manager that combines our insurance heritage, investment capabilities and sustainability expertise to deliver wealth and retirement outcomes that matter most to investors. Aviva Investors manages £268 billion of assets, with £216 billion managed on behalf of the Aviva Group.

By combining our insurance heritage and DNA with our skills and experience in asset allocation, portfolio construction and risk management, we provide a range of asset management solutions to our institutional, wholesale and retail clients. We have a highly diversified range of capabilities, with expertise in real assets, solutions, multi-assets, equities and credit. Our goal is to support Aviva becoming the UK’s leading insurer and the go-to customer brand while also leveraging our expertise for the benefit of external clients.

The key drivers of our strategy are:

- Customer: deliver our customers’ investment needs through strong investment performance, sustainability impact and maintaining a rigorous risk and control culture.
- Simplification: use data and automation to streamline processes and continue to simplify our businesses to become more efficient and deliver better customer outcomes.
- Growth: continue to grow in both our Aviva client business, supporting its growth in Bulk Annuities, Workplace Pensions and Wealth Management, and our external business, by being recognised for our focused expertise and Sustainable Investing.
- People: develop a high-performance culture by embedding our diversity and inclusion strategy, and actively promoting focused learning and upskilling, talent management and career development.

Our focus on Sustainable Investing provides further opportunities for growth while playing an active role in the fight against climate change, biodiversity, human rights and building stronger communities. We have committed to a Net Zero company target by 2040 and have also signed up to the Net Zero Asset Managers Initiative. We provide our ESG investing expertise to the UK & Ireland Life business.

Operating performance

Operating profit

Operating profit increased to £41 million (2020: £25 million), or £58 million excluding cost reduction implementation costs, driven by a combination of revenue and cost reduction initiatives. Aviva Investors revenue grew by 6% helped by a 50% increase in origination volumes and higher asset levels reflecting net inflows and positive market movements.

Controllable costs

Excluding cost reduction implementation costs of £17 million (2020: £nil), costs decreased by 3% to £345 million (2020: £356 million) as we simplify the business, focus our product range and deliver on other cost containment measures.

Our cost income ratio improved by 7pp to 86% (2020: 93%), reflecting increased efficiency and revenue growth, and we expect both of these drivers to lead to further improvements in our cost income ratio in the future.

Net flows and assets under management

Assets under management represent all assets managed by Aviva Investors' continuing operations. This includes assets managed by Aviva Investors on behalf of Aviva's Life and Non-life operations, reported as Internal assets in the table below. The Internal legacy category includes assets related to products that are closed for new business. These internal assets are included within the Group’s statement of financial position. Assets under management also include assets managed by Aviva Investors on behalf of external clients, which are not included in the Group's statement of financial position.

	Internal legacy £m	Internal core £m	External £m	2021 Total £m	2020 Total £m
Assets under management at 1 January[1]	88,967	119,570	51,749	260,286	246,558
Total inflows	10,204	31,769	8,139	50,112	50,449
Total outflows	(12,950)	(30,855)	(4,826)	(48,631)	(51,533)
Net flows	(2,746)	914	3,313	1,481	(1,084)
Net flows into liquidity funds and cash	(377)	7,045	21	6,689	8,239
Strategic actions[2]	—	(484)	(5,593)	(6,077)	—
Market and foreign exchange movements	1,807	1,752	1,842	5,401	6,573
Assets under management[3] at 31 December	**87,651**	**128,797**	**51,332**	**267,780**	260,286

1 Assets under management at 1 January have been re-presented to reflect movements in continued and discontinued business, and a re-classification of certain funds between internal and external.
2 Strategic actions include the sale of our US Investment Grade Credit capability in November 2021 and actions from clients previously part of the Group.
3 Aviva Investors administer an additional £44 billion (2020 : £40 billion) of assets classified as assets under administration which are not included in assets under management.

Net flows improved to £1.5 billion (2020: £(1.1) billion) with external client net flows of £3.3 billion (2020: £1.4 billion) excluding cash and liquidity funds, mainly driven by real assets and multi assets with lower although positive net inflows into credit. Internal net outflows also improved to £(1.8) billion (2020: £(2.5) billion) as higher legacy outflows reflecting more normalised levels of run-off activity compared to 2020, were more than offset by growing net inflows from Workplace, increased origination activity for UK Life, as well as a new mandate from Aviva Life & Pensions Ireland bringing in assets previously managed by external fund managers. This mandate win, with further assets expected to transition in 2022, demonstrates the synergies of Aviva's business model, our strength in ESG as well as our expertise in managing insurance assets.

In addition, our Liquidity business contributed £6.7 billion (2020: £8.2 billion) of net inflows into our liquidity and cash funds.

Assets under management increased by £7.5 billion during 2021 to £267.8 billion (2020: £260.3 billion[1]), with strong performance in equity markets offset by the impact of the higher rate environment on fixed interest assets and corporate actions which comprised the sale of our US Investment Grade Credit capability.

Our trading momentum remains positive as we continue to build and deliver growth through our strengths of ESG, real assets, infrastructure, credit and sustainable equities.

Solvency II operating performance

Solvency II operating own funds generation (OFG) and Solvency II return on capital

Solvency II OFG increased to £36 million (2020: £26 million) as a result of higher operating profit as discussed above. Solvency II return on capital was 9.3% (2020: 6.3%) driven by the higher Solvency II operating own funds generation.

Solvency II operating capital generation (OCG)

Solvency II OCG increased to £53 million (2020: £29 million) reflecting growth in Solvency II OFG and a net release of SCR.

6.iv – International investments

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Operating profit	**97**	26	278 %	276 %
Cash remittances	**11**	6	83 %	83 %
New business - Life Insurance				
VNB	**78**	29	175 %	176 %
PVNBP	**1,122**	664	69 %	70 %
Solvency II operating own funds generation	**124**	63	97 %	96 %
Solvency II return on capital	**13.6 %**	9.8 %	3.8 pp	4.0 pp
Solvency II operating capital generation	**55**	4		

Overview

International investments (previously Strategic investments) comprises our joint ventures and associates in China, Singapore and India, providing us with value creation potential and optionality in attractive and fast-growing markets.

Our joint venture in Singapore (Aviva Singlife) was formed on the sale of Aviva's majority holding in Aviva Ltd (Aviva Singapore) on 30 November 2020, to a consortium led by Singapore Life Ltd (Singlife) to support the creation of one of the country's leading insurance companies. The combination brought together Aviva Singapore's scale and leading franchise with Singlife's innovative and digitally focused capabilities. Aviva has a 26% shareholding in Aviva Singlife.

In China we have a 50% shareholding in Aviva-COFCO Life Insurance Company Ltd. This joint venture has a core agency channel, maintaining a team of more than 12,000 agents nationwide as of December 2021.

In India we have a life insurance business through our joint venture with Dabur Invest. Corp, in which Aviva has a 49% shareholding. The business is a provider of savings, protection and retirement products through bancassurance, retail agency channels and a direct sales force.

New business and operating performance

Operating profit increased to £97 million (2020: £26 million), Solvency II operating own funds generation increased by 97% to £124 million (2020: £63 million) and Solvency II operating capital generation increased to £55 million (2020: £4 million) largely due to the inclusion of Aviva Singlife (following its formation on 30 November 2020). During 2021 Aviva Singlife had strong performance arising from a new long-term care product, which alongside improved volumes and margins in China contributed to higher PVNBP of £1,122 million (2020: £664 million) and VNB of £78 million (2020: £29 million).

Cash remittances

Cash remittances to Group increased to £11 million (2020: £6 million), and relates to dividends from China.

6.v – Discontinued operations

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
Operating profit	**631**	1,355	(54)%	(52)%
Cash remittances	**237**	135	76 %	80 %
Controllable costs	**590**	904	(35)%	(33)%
New business - Life Insurance				
VNB	**328**	547	(40)%	(37)%
PVNBP	**9,455**	12,170	(22)%	(19)%
General Insurance				
GWP	**1,548**	1,782	(13)%	(11)%
COR	**101.3 %**	93.7 %	7.6 pp	
Solvency II operating own funds generation	**458**	503	(9)%	(4)%
Solvency II return on capital	**7.2 %**	6.8 %	0.4 pp	1.0 pp
Solvency II operating capital generation	**197**	682	(71)%	(70)%

Overview

Discontinued operations comprise our former businesses in France, Italy, Poland, Turkey and Asia (Friends Provident International Limited (FPI), Aviva Singapore, Hong Kong, Indonesia and Vietnam) and includes Aviva Investors' discontinued operations in France and Poland.

In 2021 we completed the disposals of all discontinued operations, which concludes the refocus of our portfolio and our divestment programme in which eight non-core business have been sold. Aviva is now a much simpler, leaner business, focussed on its core markets in the UK, Ireland and Canada. This divestment programme has generated cash proceeds of £7.5 billion.

The results for the discontinued operations includes the operating performance of businesses disposed until the completion date of the respective sale.

Operating performance

Operating profit

£m (unless otherwise stated)	2021	2020	Sterling % change	Constant currency %
France	**266**	467	(43)%	(42)%
Italy	**111**	306	(64)%	(63)%
Poland	**177**	194	(9)%	(4)%
Other	**77**	83	(7)%	(1)%
Disposals completed in 2020	**—**	305	(100)%	(100)%
Operating profit	**631**	1,355	(54)%	(52)%

Operating profit has decreased by 54% to £631 million (2020: £1,355 million) driven by the completion of the disposals in 2020 and 2021. Operating profit in France and Italy was lower in the period to the disposal date compared to the equivalent period in the prior period. For France this was mainly due to adverse conditions in the general insurance business, and for Italy largely as a result of adverse claims experience due to higher mortality rates and a non-recurring loss on dormant policies.

Solvency II operating performance

Solvency II operating own funds generation (OFG), Solvency II operating capital generation (OCG) and Solvency II return on capital

Solvency II OFG has decreased by £45 million to £458 million (2020: £503 million) and Solvency II OCG has reduced by £485 million to £197 million (2020: £682 million) in respect of discontinued operations for the year ended 31 December 2021, primarily due to disposals in 2020 and 2021.

7 – Profit drivers
7.i – Life business profit drivers

Profit drivers and the supporting income and expense analysis in this section relate to UK & Ireland life.

	2021 £m	2020 £m
New business income	**799**	857
Underwriting margin	**419**	412
Investment return	**1,452**	1,472
Total income	**2,670**	2,741
Acquisition expenses	**(419)**	(424)
Administration expenses[1]	**(985)**	(946)
Total expenses	**(1,404)**	(1,370)
Other[2]	**115**	493
Life business operating profit	**1,381**	1,864
Health business operating profit	**47**	43
Total operating profit	**1,428**	1,907

1 Includes cost reduction implementation spend and IFRS 17 costs of £84 million (2020: £44 million)
2 Other represents amortisation of deferred acquisition costs (DAC), changes in assumptions and modelling, non-recurring items, including provision for legacy customer remediation, and non-product specific items.

Income: New business income and underwriting margin

	2021 £m	2020 £m
New business income	**799**	857
Acquisition expenses	**(419)**	(424)
Net contribution	**380**	433
Annual premium equivalent (APE) (£m)	**4,797**	4,034
As margin on APE (%)	**8 %**	11 %
Underwriting margin (£m)	**419**	412
Analysed by:		
Expenses	**96**	96
Mortality and longevity	**323**	313
Persistency	**—**	3

Income: Investment return

	2021 £m	2020 £m
Unit-linked margin (£m)	**1,061**	979
As annual management charge on average reserves (bps)	**56**	59
Average reserves (£bn)[1]	**189**	165
Participating business (£m)[2]	**104**	115
As bonus on average reserves (bps)	**27**	28
Average reserves (£bn)[1]	**39**	41
Spread margin (£m)	**283**	298
As spread margin on average reserves (bps)	**37**	40
Average reserves (£bn)[1]	**77**	75
Expected return on shareholder assets (£m)[3]	**4**	80
Total (£m)	**1,452**	1,472
Total Average reserves (£bn)[1]	**305**	281

1 An average of the insurance or investment contract liabilities over the reporting period, including business which is not consolidated within the statement of financial position.
2 The shareholders' share of the return on with-profits and other participating business.
3 The expected investment return based on opening economic assumptions applied to expected surplus assets over the reporting period that are not backing policyholder liabilities.

Expenses

	2021 £m	2020 £m
Acquisition expenses (£m)	**(419)**	(424)
APE (£m)	**4,797**	4,034
As acquisition expense ratio on APE (%)	**9 %**	11 %
Administration expenses (£m)[1]	**(985)**	(946)
As existing business expense ratio on average reserves (bps)	**32**	34
Total Average reserves (£bn)[2]	**305**	281

1 Includes cost reduction implementation spend and IFRS 17 costs of £84 million (2020: £44 million)
2 An average of the insurance or investment contract liabilities over the reporting period, including business which is not consolidated within the statement of financial position.

7.ii – General insurance profit drivers

2021	UK Personal £m	UK Commercial £m	Total UK £m	Ireland £m	Total UK & Ireland £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Total continuing operations £m
Gross written premiums	2,334	2,609	4,943	409	5,352	2,187	1,268	3,455	8,807
Net written premiums	2,250	2,162	4,412	382	4,794	2,136	1,120	3,256	8,050
Net earned premiums	2,216	2,019	4,235	381	4,616	2,085	1,062	3,147	7,763
Net claims incurred	(1,293)	(1,249)	(2,542)	(216)	(2,758)	(1,262)	(519)	(1,781)	(4,539)
Of which claims handling costs			(117)	(15)	(132)			(117)	(249)
Earned commission	(548)	(408)	(956)	(60)	(1,016)	(438)	(252)	(690)	(1,706)
Earned expenses	(254)	(253)	(507)	(74)	(581)	(232)	(151)	(383)	(964)
Underwriting result	121	109	230	31	261	153	140	293	554
Long-term investment return (LTIR)			85	7	92			117	209
Other[1]			3	—	3			(4)	(1)
Operating profit			318	38	356			406	762
Claims ratio	58.4 %	61.9 %	60.0 %	56.6 %	59.7 %	60.5 %	48.9 %	56.6 %	58.5 %
Of which:									
Prior year reserve development (%)			1.1 %	(1.4)%	0.9 %			(0.3)%	0.4 %
Weather claims over/(under) long-term average (%)[2]			0.4 %	(1.9)%	0.2 %			(0.4)%	(0.1)%
Commission ratio	24.7 %	20.2 %	22.6 %	15.7 %	22.0 %	21.0 %	23.7 %	21.9 %	22.0 %
Expense ratio	11.5 %	12.5 %	12.0 %	19.4 %	12.6 %	11.1 %	14.2 %	12.2 %	12.4 %
Combined operating ratio	94.6 %	94.6 %	94.6 %	91.7 %	94.3 %	92.6 %	86.8 %	90.7 %	92.9 %
Assets supporting general insurance business									
Debt securities					3,106			5,012	8,118
Equity securities					633			207	840
Investment property					271			—	271
Cash and cash equivalents					2,346			368	2,714
Other[3]					712			430	1,142
Assets at 31 December 2021					7,068			6,017	13,085
Debt securities					2,402			4,773	7,175
Equity securities					2			238	240
Investment property					352			—	352
Cash and cash equivalents					2,678			217	2,895
Other[3]					1,497			396	1,893
Assets at 31 December 2020					6,931			5,624	12,555
Average assets					7,000			5,820	12,820
LTIR as % of average assets					1.3 %			2.0 %	1.6 %

1 Includes the result of non-insurance operations, unwind of discount rate and pension scheme net finance costs.
2 Actual weather-related losses compared to expected and the weather impact on COR are included as part of Aviva's climate metrics reported in our Climate-related financial disclosure.
3 Includes loans and other financial investments.

2020	UK Personal[3] £m	UK Commercial[3] £m	Total UK £m	Ireland £m	Total UK & Ireland £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Total continuing operations £m
Gross written premiums	2,377	2,262	4,639	412	5,051	2,118	1,153	3,271	8,322
Net written premiums	2,306	1,934	4,240	390	4,630	2,075	1,021	3,096	7,726
Net earned premiums	2,356	1,829	4,185	407	4,592	2,055	985	3,040	7,632
Net claims incurred	(1,254)	(1,329)	(2,583)	(243)	(2,826)	(1,154)	(699)	(1,853)	(4,679)
Of which claims handling costs			(139)	(14)	(153)			(122)	(275)
Earned commission	(620)	(379)	(999)	(57)	(1,056)	(411)	(236)	(647)	(1,703)
Earned expenses	(302)	(238)	(540)	(88)	(628)	(228)	(150)	(378)	(1,006)
Underwriting result	180	(117)	63	19	82	262	(100)	162	244
Long-term investment return (LTIR)			132	12	144			130	274
Other[1]			(13)	—	(13)			(5)	(18)
Operating profit			182	31	213			287	500
Claims ratio	53.2 %	72.7 %	61.7 %	59.6 %	61.5 %	56.1 %	71.0 %	61.0 %	61.3 %
Of which:									
Prior year reserve development (%)			1.0 %	(2.5)%	0.7 %			0.8 %	0.7 %
Weather claims (under)/over long-term average (%)			(0.8)%	(2.3)%	(0.9)%			(0.2)%	(0.6)%
Commission ratio	26.3 %	20.7 %	23.9 %	14.0 %	23.0 %	20.0 %	24.0 %	21.3 %	22.3 %
Expense ratio	12.8 %	13.0 %	12.9 %	21.6 %	13.7 %	11.1 %	15.2 %	12.4 %	13.2 %
Combined operating ratio	92.3 %	106.4 %	98.5 %	95.2 %	98.2 %	87.2 %	110.2 %	94.7 %	96.8 %
Assets supporting general insurance business									
Debt securities					2,402			4,773	7,175
Equity securities					2			238	240
Investment property					352			—	352
Cash and cash equivalents					2,678			217	2,895
Other[2]					1,497			396	1,893
Assets at 31 December 2020					6,931			5,624	12,555
Debt securities					2,483			4,633	7,116
Equity securities					744			231	975
Investment property					414			—	414
Cash and cash equivalents					658			158	816
Other[2]					1,893			150	2,043
Assets at 31 December 2019					6,192			5,172	11,364
Average assets					6,562			5,398	11,960
LTIR as % of average assets					2.2 %			2.4 %	2.3 %

1 Includes the result of non-insurance operations, unwind of discount rate and pension scheme net finance costs.
2 Includes loans and other financial investments.
3 Following a reclassification of UK van insurance products from commercial lines to personal lines in 2021, comparative amounts for the full year 2020 have been amended from those previously reported. The effect of this change on personal lines GWP is an increase of £76 million with an equal and opposite decrease in commercial lines GWP. The effect of this change on personal lines COR is a 0.1pp decrease and a 0.7pp increase in commercial lines COR.

Financial supplement

A1 - Reconciliation of Group adjusted operating profit to IFRS profit for the year

	Note	2021 £m	2020[1] £m
UK & Ireland Life	6.i	**1,428**	1,907
UK & Ireland General Insurance	6.ii	**356**	213
Canada	6.ii	**406**	287
Aviva Investors	6.iii	**41**	25
International investments	6.iv	**97**	26
		2,328	2,458
Corporate centre costs and Other operations	A2	**(379)**	(282)
Group debt costs and other interest	A3	**(315)**	(370)
Group adjusted operating profit from continuing operations		**1,634**	1,806
Group adjusted operating profit from discontinued operations	6.v	**631**	1,355
Group adjusted operating profit before tax attributable to shareholders' profits		**2,265**	3,161
Adjusted for the following:			
Life business: Investment variances and economic assumption changes	A4	**(805)**	174
Non-life business: Short-term fluctuation in return on investments	A5	**(149)**	(64)
General insurance and health business: Economic assumption changes	A5	**(85)**	(104)
Impairment of goodwill, joint ventures, associates and other amounts expensed	A6	**—**	(30)
Amortisation and impairment of intangibles acquired in business combinations	A7	**(66)**	(76)
Amortisation and impairment of acquired value of in-force business	A8	**(199)**	(278)
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	A9	**1,572**	725
Other	A10	**(204)**	(34)
Adjusting items before tax		**64**	313
IFRS profit before tax attributable to shareholders' profits from continuing operations and discontinued operations		**2,329**	3,474
Tax on group adjusted operating profit		**(470)**	(634)
Tax on other activities		**177**	70
		(293)	(564)
IFRS profit for the year		**2,036**	2,910

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.

Other Group adjusted operating profit items
A2 – Corporate centre costs and Other operations

	2021 £m	2020[1] £m
Cost reduction implementation and IFRS 17 costs	**(115)**	(38)
Other projects	**(76)**	(25)
Project spend	**(191)**	(63)
Central spend and share award costs[2]	**(169)**	(187)
Corporate centre costs	**(360)**	(250)
Other operations	**(19)**	(32)
Total	**(379)**	(282)

1 The 2020 comparative results have been re-presented from those previously published due to the change in presentation of segmental information. See note B2.
2 Following a review of corporate centre costs, comparative amounts for full year 2020 have been amended from those previously reported. The effect of this change is an increase in project spend of £21 million for the full year 2020 with an equal and opposite decrease in central spend and share award costs.

Corporate centre costs of £360 million (2020: £250 million) increased by £110 million. As we are now a simpler group we are addressing our central spend and are taking initiatives to reduce this as reflected in the decrease of £18 million from £187 million in 2020 to £169 million in 2021. Project spend is mainly driven by higher cost reduction implementation costs, IFRS 17 costs and other projects.

A3 – Group debt costs and other interest

	2021 £m	2020 £m
Subordinated debt	**(304)**	(352)
Other	**(11)**	(15)
Total external debt	**(315)**	(367)
Internal lending arrangements	**(31)**	(48)
Net finance income on main UK pension scheme	**31**	45
Total	**(315)**	(370)

External debt costs are lower than prior year as a result of the £1 billion debt tender and loan repayments during the year. This was partially offset with additional interest on new loans issued part way through the prior year. Internal lending arrangements are lower than prior year due to lower interest rates and early repayment of capital which is partially offset by lower pension scheme finance income which is also driven by lower interest rates.

Non-operating profit items
A4 – 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, changes in asset mix, as well as other market movements. 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	
	2021	2020	**2021**	2020
United Kingdom	**3.9%**	4.5%	**2.4%**	3.0%
France[1]	**4.0%**	4.5%	**3.0%**	3.5%
Other Eurozone	**3.2%**	3.7%	**1.7%**	2.2%

1 In light of the prevailing low interest rates at the end of 2020, 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 £9 million to the expected return on the life business over 2021 (2020: £12 million). The disposal of our French business during 2021 means that the rate for France was only relevant for the first 9 months of 2021.

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	2021	2020
Equity risk premium	**3.5%**	3.5%
Property risk premium	**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	2021	2020
United Kingdom	**0.4%**	1.0%
Eurozone	**(0.3%)**	0.2%

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.

(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	2021 £m	2020 £m
Investment variances and economic assumptions	**(805)**	174

Investment variances and economic assumption changes had a negative impact of £805 million (2020: profit of £174 million), primarily driven by an increase in interest rates and positive global equity returns, partially offset by a reduction in the allowance for risk of default on assets backing annuities. The adverse impact of interest rates and equities reflect the fact that we hedge on a Solvency II basis as that drives the ability of markets to remit cash rather than an IFRS basis. For example, when equity markets increase we gain from the increase in the value of future annual management charges on unit-linked products on an economic basis which are not recognised under IFRS, however, the loss from hedges in place are recognised on both Solvency II and IFRS bases.

The positive variance for 2020 was mainly due to a reduction in yields, partially offset by a reduction in equities in the UK and France.

A5 – 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 rate of return on equities		Long-term rate of return on property	
	2021	2020	2021	2020
United Kingdom	**3.9 %**	4.5 %	**2.4 %**	3.0 %
France[1]	**4.0 %**	4.5 %	**3.0 %**	3.5 %
Other Eurozone	**3.2 %**	3.7 %	**1.7 %**	2.2 %
Canada	**4.7 %**	5.7 %	**3.2 %**	4.2 %

1 In light of the prevailing low interest rates at the end of 2020, the expected investment return on equity and property in France has been determined taking into account local economic and market forecasts of the long-term return. The impact of this change is an increase of £3 million to the expected return on the general insurance business over 2021 (2020: £5 million). The disposal of our French business during 2021 means that the rate for France was only relevant for the first 9 months of 2021.

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 A4(c).

(d) Analysis of investment return

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

General Insurance and Health	2021 £m	2020 £m
Analysis of investment income:		
– Net investment income	**7**	365
– Foreign exchange gains/(losses) and other charges	**47**	(45)
	54	320
Analysed between:		
– Long-term investment return, reported within Group adjusted operating profit	**253**	335
– Short-term fluctuations in investment return, reported outside Group adjusted operating profit	**(199)**	(15)
	54	320
Short-term fluctuations:		
– General insurance and health	**(199)**	(15)
– Other operations[1]	**50**	(49)
Total short-term fluctuations	**(149)**	(64)

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 2021 represented a loss of £149 million, primarily due to rising interest rates reducing the value of fixed interest securities, partially offset by foreign exchange, property gains and equity gains.

The short-term fluctuations during 2020 represented a loss of £64 million, primarily due to falling equity markets and foreign exchange losses. These losses were partly offset by an increase in the value of fixed income securities, as a result of falls in interest rates.

(e) Economic assumption changes

In the general insurance and health business, there is a negative impact of £85 million (2020: loss of £104 million) primarily as a result of an increase in the estimated future inflation rate used to value periodic payment orders (PPOs), partly offset by an increase in the interest rates used to discount claim reserves for both PPOs and latent claims.

A6 – Impairment of goodwill, joint ventures, associates and other amounts expensed

No impairment of goodwill, associates and joint ventures has been recognised in the year (2020: £30 million charge).

A7 – Amortisation and impairment of intangibles acquired in business combinations

The amortisation and impairment of intangible assets acquired in business combinations is a charge of £66 million (2020: £76 million charge).

A8 – Amortisation and impairment of acquired value of in-force business

Amortisation of acquired value of in-force business (AVIF) is a charge of £199 million (2020: £278 million charge), which relates solely to amortisation in respect of the Group's subsidiaries and joint ventures. The decrease in amortisation of AVIF is primarily driven by the disposal of Friends Provident International Limited, which completed in July 2020. There is no impairment of AVIF in 2021 (2020: £19 million).

A9 – Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates

The total Group profit on disposal and remeasurement of subsidiaries, joint ventures and associates is £1,572 million (2020: £725 million profit), comprising:

	2021 £m	2020 £m
Disposals of discontinued operations		
Aviva France[1]	**128**	—
Aviva Vita	**65**	—
Aviva Italy[2]	**233**	—
Aviva Poland	**1,671**	—
Singapore	**—**	674
Other	**(9)**	58
Held for sale remeasurements of discontinued operations		
Aviva France[1]	**(538)**	—
Friends Provident International Limited	**—**	(19)
Total gain on disposals and remeasurements of discontinued operations	**1,550**	713
Profit on disposal from continuing operations	**22**	12
Total gain on disposals and remeasurements	**1,572**	725

1 A £538 million loss on remeasurement in respect of Aviva France was recognised at 30 June 2021, with a subsequent £128 million gain upon disposal recognised when the disposal completed on 30 September 2021.
2 Aviva Italy excludes Aviva Vita, which is disclosed separately.

Further details of these items are provided in note B4.

A10 – 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. At 31 December 2021, other items are a charge of £204 million (2020: £34 million) which comprises the following:

- The following items are disclosed outside of Group adjusted operating profit as they relate to acquisition and disposal activity that we consider to be strategic in nature:
  - A charge of £76 million arising from third party reinsurance, accepted by Aviva from the former Aviva France general insurance entity, which was terminated on 31 December 2021;
  - A charge of £45 million relating to costs associated with the disposals of France, Italy, Aviva Vita, Poland, Singapore, Turkey and Vietnam IT contracts that have become onerous, severance costs associated with senior management and relocation costs;
  - Net charges of £22 million relating to provisions for indemnities entered into through acquisition and disposal activity.
- A charge of £51 million relating to the redemption payment in excess of the market value of debt repaid as part of the Group's deleveraging strategy. This is disclosed outside of Group adjusted operating profit as the costs arise from a strategic decision relating to the financing of the Group as a whole and not to the operating performance of the Group or its operating segments;
- A charge of £7 million relating to the cost of voluntary amendments to a small proportion of ground rent leases held by the Aviva Investors REaLM Ground Rent Fund; and
- A charge of £3 million relating to stamp duty costs on share buybacks.

IFRS capital
A11 – IFRS Net asset value

	2021 £m	pence per share[2]	2020 £m	pence per share[2]
Equity attributable to shareholders of Aviva plc at 1 January[1]	**19,354**	**514p**	17,008	434p
Group adjusted operating profit	**2,265**	**60p**	3,161	80p
Investment return variances and economic assumption changes	**(1,039)**	**(28)p**	6	—
Amortisation and impairment of intangibles, joint ventures, associates and other amounts expensed	**(66)**	**(2)p**	(106)	(3)p
Amortisation and impairment of acquired value of in-force business	**(199)**	**(5)p**	(278)	(7)p
Profit on the disposal and remeasurements of subsidiaries, joint ventures and associates	**1,572**	**42p**	725	18 p
Other[3]	**(204)**	**(5)p**	(34)	(1)p
Tax on operating profit and on other activities	**(293)**	**(8)p**	(564)	(14)p
Non-controlling interests	**(70)**	**(2)p**	(112)	(3)p
Profit after tax attributable to shareholders of Aviva plc	**1,966**	**52p**	2,798	70p
Available for sale (AFS) securities fair value and other reserve movements	**(73)**	**(2)p**	32	1p
Ordinary dividends	**(1,110)**	**(29)p**	(236)	(6)p
Direct capital instrument and tier 1 notes interest and preference share dividend	**(17)**	**—**	(44)	(1)p
Foreign exchange rate movements	**(315)**	**(8)p**	(81)	(2)p
Remeasurements of pension schemes (net of tax)	**(100)**	**(3)p**	(171)	(4)p
Shares purchased in buyback	**(663)**	**(18)p**	—	—
Other net equity movements	**(40)**	**(1)p**	48	1p
Equity attributable to shareholders of Aviva plc at 31 December[1]	**19,002**	**505p**	19,354	493p

1 Excluding preference shares of £200 million (2020: £200 million).
2 The opening pence per share includes the effect of the reduction of the 165,237,860 shares acquired during 2021 as part of the share buyback programme announced on 12 August 2021. Number of shares as at 31 December 2021: 3,766 million (2020: 3,928 million).
3 Other in 2021 includes net charges of £67 million from onerous contracts and indemnity provisions arising from acquisition and disposal activity, a £76 million charge associated with reinsurance accepted from the former Aviva France general insurance entity, a charge of £51 million relating to the redemption payment in excess of the market value of debt repaid, a charge of £7 million relating to the cost of voluntary amendments to ground rent leases held by an Aviva Investors fund and a £3 million stamp duty charge on share buybacks. Other in 2020 includes a charge of £16 million relating to costs on contracts that have become onerous following disposals of certain businesses in Asia, and a charge of £18 million relating to the estimated additional liability arising in the UK defined benefit pension schemes as a result of the requirement to equalise members’ benefits for the effects of Guaranteed Minimum Pension (GMP) for former members.

At 31 December 2021, IFRS net asset value per share was 505 pence (2020: 493 pence). The increase of 12 pence, compared to 2020, primarily reflects adverse investment variances and economic assumption changes, payments of dividends, offset by the profit on disposal of operations (see note B4(a)), and also impacted by share buyback in the year.

A12 – IFRS return on equity

2021	Operating profit: Before tax attributable to shareholders' profits £m	Operating profit: After tax attributable to shareholders' profits £m	Weighted average shareholders' funds including non-controlling interests £m	Return on equity %
UK & Ireland Life	**1,428**	**1,125**	**12,282**	**9.2%**
UK & Ireland General Insurance	**356**	**338**	**1,353**	**25.0%**
Canada	**406**	**315**	**1,592**	**19.8%**
Aviva Investors	**41**	**35**	**438**	**8.0%**
UK, Ireland, Canada and Aviva Investors	**2,231**	**1,813**	**15,665**	**11.6%**
International investments	**97**	**97**	**808**	**12.0%**
Other Group activities[1]	**(379)**	**(351)**	**6,836**	**N/A**
Return on capital employed from continuing operations	**1,949**	**1,559**	**23,309**	**6.7%**
Discontinued operations	**631**	**491**	**2,923**	**16.8%**
Return on total capital employed	**2,580**	**2,050**	**26,232**	**7.8%**
Subordinated debt	**(304)**	**(246)**	**(5,855)**	**4.2%**
Senior debt	**(11)**	**(9)**	**(839)**	**1.1%**
Return on total equity	**2,265**	**1,795**	**19,538**	**9.2%**
Less: Non-controlling interests		**(71)**	**(757)**	**9.4%**
Preference shares		**(17)**	**(200)**	**8.5%**
Return on equity shareholders' funds		**1,707**	**18,581**	**9.2%**

1 The other Group activities operating loss before tax of £(379) million comprises corporate centre costs of £(360) million, other operations loss of £(19) million, interest expense on internal lending arrangements of £(31) million, partly offset by finance income on the main UK pension scheme of £31 million.

2020[1]	Operating profit: Before tax attributable to shareholders' profits £m	Operating profit: After tax attributable to shareholders' profits £m	Weighted average shareholders' funds including non-controlling interests £m	Return on equity %
UK & Ireland Life	1,912	1,574	11,953	13.2%
UK & Ireland General Insurance	213	198	1,381	14.3%
Canada	287	224	1,479	15.1%
Aviva Investors	25	24	434	5.5%
UK, Ireland, Canada and Aviva Investors	2,437	2,020	15,247	13.2%
International investments	26	26	532	4.9%
Other Group activities[2]	(290)	(266)	6,978	NA
Return on capital employed from continuing operations	2,173	1,780	22,757	7.8%
Discontinued operations[1]	1,355	1,043	5,298	19.7%
Return on total capital employed	3,528	2,823	28,055	10.1%
Subordinated debt	(352)	(284)	(6,974)	4.1%
Senior debt	(15)	(12)	(1,375)	0.9%
Return on total equity	3,161	2,527	19,706	12.8%
Less: Non-controlling interests		(98)	(1,002)	9.8%
Direct capital instrument		(27)	(125)	21.6%
Preference shares		(17)	(200)	8.5%
Return on equity shareholders' funds		2,385	18,379	13.0%

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued as described in note B2.
2 The other Group activities operating loss before tax of £(290) million comprises corporate centre costs of £(250) million, other operations loss of £(37) million, interest expense on internal lending arrangements of £(48) million, partly offset by finance income on the main UK pension scheme of £45 million.

A13 – Group capital under IFRS basis

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

	2021 £m	2020[1] £m
UK & Ireland Life	**12,403**	12,651
UK & Ireland General Insurance[2]	**1,281**	1,483
Canada	**1,593**	1,501
Aviva Investors	**494**	410
UK, Ireland, Canada and Aviva Investors	**15,771**	16,045
International investments	**858**	779
Other Group activities[2,3]	**8,958**	7,332
Capital employed from continuing operations	**25,587**	24,156
Discontinued operations[1]	**—**	4,657
Total capital employed	**25,587**	28,813
Financed by		
Equity shareholders' funds	**19,002**	19,354
Non-controlling interests	**252**	1,006
Preference shares	**200**	200
Subordinated debt	**5,432**	7,033
Senior debt	**701**	1,220
Total capital employed[4]	**25,587**	28,813

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued as described in note B2.
2 Capital employed for United Kingdom General Insurance excludes £924 million (2020: £927 million) of goodwill which does not support the general insurance business for capital purposes and is included in other Group activities.
3 Other Group activities include centrally held tangible net assets, the main UK staff pension scheme surplus and also reflect 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.
4 Goodwill, AVIF and other intangibles are maintained within the capital base. Goodwill includes goodwill in subsidiaries of £1,741 million (2020: £1,799 million) and goodwill in joint ventures of £62 million (2020: £71 million). AVIF and other intangibles comprise £1,950 million (2020: £2,434 million) of intangibles in subsidiaries and £138 million (2020: £150 million) of intangibles in joint ventures, net of deferred tax liabilities of £(433) million (2020: £(397) million) and the non-controlling interest share of intangibles of £nil (2020: £(25) million). The comparative amounts of goodwill and AVIF and other intangible assets in joint ventures have been amended from those previously published following a review of the fair value of identifiable net assets acquired in Aviva Singlife Holdings Pte Ltd.

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

On 16 March 2021 the Group completed a £1.0 billion tender offer and redeemed €185 million of the Group's 0.625% €500 million senior notes, €286 million of the Group's 1.875% €750 million senior notes, €349 million of the Group's 6.125% €650 million Tier 2 subordinated debt and £298 million of the Group's 6.125% £800 million restricted Tier 1 subordinated debt.

On 10 May 2021 the Group's 4.500% C$450 million subordinated notes reached their final maturity and were redeemed. On 21 May 2021 the Group's 12.000% £162 million subordinated notes reached their final maturity and were redeemed. On 3 June 2021 the Group redeemed its 6.625% £450 million subordinated notes in full at the first call date.

At 31 December 2021 the market value of our external debt (subordinated debt and senior debt) and preference shares (including both Aviva plc preference shares of £200 million (2020: £200 million) and General Accident plc preference shares, within non-controlling interests, of £250 million (2020: £250 million)) was £7,670 million (2020: £10,233 million).

IFRS financial statements

Consolidated income statement

For the year ended 31 December 2021

	Note	2021 £m	2020[1] £m
Continuing operations			
Income			
Gross written premiums		**19,398**	18,590
Premiums ceded to reinsurers		**(4,701)**	(3,500)
Premiums written net of reinsurance		**14,697**	15,090
Net change in provision for unearned premiums		**(307)**	(95)
Net earned premiums		**14,390**	14,995
Fee and commission income		**1,488**	1,317
Net investment income		**17,138**	14,971
Share of profit/(loss) after tax of joint ventures and associates		**146**	(3)
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates		**22**	12
		33,184	31,292
Expenses			
Claims and benefits paid, net of recoveries from reinsurers		**(12,493)**	(13,028)
Change in insurance liabilities, net of reinsurance		**1,699**	(4,991)
Change in investment contract provisions		**(15,304)**	(5,252)
Change in unallocated divisible surplus		**(175)**	505
Fee and commission expense		**(3,172)**	(3,047)
Investment expense attributable to unitholders		**(224)**	(588)
Other expenses		**(2,211)**	(2,530)
Finance costs		**(503)**	(549)
		(32,383)	(29,480)
Profit before tax from continuing operations		**801**	1,812
Tax attributable to policyholders' returns		**(245)**	(43)
Profit before tax attributable to shareholders' profits from continuing operations		**556**	1,769
Tax expense		**(465)**	(346)
Less: tax attributable to policyholders' returns		**245**	43
Tax attributable to shareholders' profits		**(220)**	(303)
Profit from continuing operations		**336**	1,466
Profit for the year from discontinued operations		**150**	731
Profit on disposal of discontinued operations		**1,550**	713
Profit from discontinued operations	B4(c)	**1,700**	1,444
Profit for the year		**2,036**	2,910
Attributable to:			
Equity holders of Aviva plc		**1,966**	2,798
Non-controlling interests		**70**	112
Profit for the year		**2,036**	2,910
Earnings per share	B5		
Basic (pence per share)		**50.1**	70.2
Diluted (pence per share)		**49.7**	69.8
Continuing operations - basic (pence per share)		**7.7**	35.7
Continuing operations - diluted (pence per share)		**7.6**	35.5

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.

Consolidated statement of comprehensive income

For the year ended 31 December 2021

	Note	2021 £m	2020[1] £m
Profit for the year from continuing operations		**336**	1,466
Other comprehensive income from continuing operations:			
Items that may be reclassified subsequently to income statement			
Investments classified as available for sale			
Fair value gains		**—**	1
Share of other comprehensive income of joint ventures and associates		**5**	16
Foreign exchange rate movements		**(34)**	(51)
Aggregate tax effect – shareholder tax on items that may be reclassified subsequently to income statement		**(7)**	(9)
Items that will not be reclassified to income statement			
Remeasurements of pension schemes		**59**	(150)
Aggregate tax effect – shareholder tax on items that will not be reclassified subsequently to income statement		**(159)**	(21)
Total other comprehensive loss, net of tax from continuing operations		**(136)**	(214)
Total comprehensive income for the year from continuing operations		**200**	1,252
Profit for the year from discontinued operations	B4(c)	**1,700**	1,444
Other comprehensive (loss)/income, net of tax from discontinued operations	B4(c)	**(241)**	201
Total comprehensive income for the year from discontinued operations		**1,459**	1,645
Total comprehensive income for the year		**1,659**	2,897
Attributable to:			
Equity holders of Aviva plc			
From continuing operations		**178**	1,231
From discontinued operations		**1,444**	1,520
Non-controlling interests			
From continuing operations		**22**	21
From discontinued operations		**15**	125
		1,659	2,897

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify certain operations as discontinued operations as described in note B2.

Consolidated statement of changes in equity

For the year ended 31 December 2021

	Ordinary share capital £m	Preference share capital £m	Capital reserves[1] £m	Treasury shares £m	Currency translation reserve £m	Other reserves £m	Retained earnings £m	DCI £m	Total equity excluding non-controlling interests £m	Non-controlling interests £m	Total equity £m
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Balance at 1 January	**982**	**200**	**10,260**	**(6)**	**862**	**(212)**	**7,468**	**—**	**19,554**	**1,006**	**20,560**
Profit for the year	—	—	—	—	—	—	**1,966**	—	**1,966**	**70**	**2,036**
Other comprehensive loss	—	—	—	—	**(221)**	**(23)**	**(100)**	—	**(344)**	**(33)**	**(377)**
Total comprehensive (loss)/income for the year	—	—	—	—	**(221)**	**(23)**	**1,866**	—	**1,622**	**37**	**1,659**
Dividends and appropriations	—	—	—	—	—	—	**(1,127)**	—	**(1,127)**	—	**(1,127)**
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	**(60)**	**(60)**
Reclassification of DCI to financial liabilities	—	—	—	—	—	—	—	—	—	—	—
Reserves credit for equity compensation plans	—	—	—	—	—	**24**	—	—	**24**	—	**24**
Shares issued under equity compensation plans	**1**	—	**6**	**(45)**	—	**(29)**	**3**	—	**(64)**	—	**(64)**
Forfeited dividend income	—	—	—	—	—	—	—	—	—	—	—
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—	—	—	—	**(9)**	**(9)**
Shares purchased in buyback[2]	**(42)**	—	**42**	—	—	—	**(663)**	—	**(663)**	—	**(663)**
Movements attributable to disposals of subsidiaries, joint ventures and associates	—	—	—	—	**(327)**	**183**	—	—	**(144)**	**(722)**	**(866)**
Owner-occupied properties fair value gains transferred to retained earnings on disposals	—	—	—	—	—	**(9)**	**9**	—	—	—	—
Balance at 31 December	**941**	**200**	**10,308**	**(51)**	**314**	**(66)**	**7,556**	**—**	**19,202**	**252**	**19,454**

1 Capital reserves consist of share premium of £1,248 million, a capital redemption reserve of £86 million and a merger reserve of £8,974 million.
2 On 12 August 2021, the Group announced a share buyback of ordinary shares for an aggregate purchase price of up to £750 million. On 16 December 2021 Aviva announced the increase and extension of the share buyback programme to £1 billion. In the year ended 31 December 2021, £663 million of shares had been purchased and shares with a nominal value of £42 million have been cancelled, giving rise to an additional capital redemption reserve of an equivalent amount.

For the year ended 31 December 2020

	Ordinary share capital £m	Preference share capital £m	Capital reserves[1] £m	Treasury shares £m	Currency translation reserve £m	Other reserves £m	Retained earnings £m	DCI £m	Total equity excluding non-controlling interests £m	Non-controlling interests £m	Total equity £m
Balance at 1 January	980	200	10,257	(7)	814	(101)	5,065	500	17,708	977	18,685
Profit for the year	—	—	—	—	—	—	2,798	—	2,798	112	2,910
Other comprehensive income	—	—	—	—	221	(97)	(171)	—	(47)	34	(13)
Total comprehensive income for the year	—	—	—	—	221	(97)	2,627	—	2,751	146	2,897
Dividends and appropriations	—	—	—	—	—	—	(280)	—	(280)	—	(280)
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	(30)	(30)
Reclassification of DCI to financial liabilities[2]	—	—	—	—	—	—	1	(500)	(499)	—	(499)
Reserves credit for equity compensation plans	—	—	—	—	—	37	—	—	37	—	37
Shares issued under equity compensation plans	2	—	3	1	—	(51)	46	—	1	—	1
Forfeited dividend income	—	—	—	—	—	—	2	—	2	—	2
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—	7	—	7	(61)	(54)
Shares purchased in buyback	—	—	—	—	—	—	—	—	—	—	—
Movements attributable to disposals of subsidiaries, joint ventures and associates	—	—	—	—	(173)	—	—	—	(173)	(26)	(199)
Owner-occupied properties fair value gains transferred to retained earnings on disposals	—	—	—	—	—	—	—	—	—	—	—
Balance at 31 December	982	200	10,260	(6)	862	(212)	7,468	—	19,554	1,006	20,560

1 Capital reserves consist of share premium of £1,242 million, a capital redemption reserve of £44 million and a merger reserve of £8,974 million.
2 On 23 June 2020, notification was given that the Group would redeem the 5.9021% £500 million DCI. The instrument was reclassified as a financial liability of £499 million, representing its fair value, and the difference of £1 million charged to retained earnings. On 27 July 2020, the instrument was redeemed in full.

Consolidated statement of financial position

As at 31 December 2021

	Note	2021 £m	2020 £m
Assets			
Goodwill		**1,741**	1,799
Acquired value of in-force business and intangible assets		**1,950**	2,434
Interests in, and loans to, joint ventures		**1,855**	1,702
Interests in, and loans to, associates		**118**	263
Property and equipment		**428**	768
Investment property		**7,003**	11,369
Loans		**38,624**	43,679
Financial investments		**264,961**	351,378
Reinsurance assets		**15,032**	13,338
Deferred tax assets		**138**	119
Current tax assets		**170**	183
Receivables		**6,088**	9,352
Deferred acquisition costs		**2,721**	3,264
Pension surpluses and other assets		**2,769**	2,834
Prepayments and accrued income		**2,391**	2,742
Cash and cash equivalents	B9	**12,485**	16,900
Assets of operations classified as held for sale	B4(b)	**—**	17,733
Total assets		**358,474**	479,857
Equity			
Capital			
Ordinary share capital		**941**	982
Preference share capital		**200**	200
		1,141	1,182
Capital reserves			
Share premium		**1,248**	1,242
Capital redemption reserve		**86**	44
Merger reserve		**8,974**	8,974
		10,308	10,260
Treasury shares		**(51)**	(6)
Currency translation reserve		**314**	862
Other reserves		**(66)**	(212)
Retained earnings		**7,556**	7,468
Equity attributable to shareholders of Aviva plc		**19,202**	19,554
Non-controlling interests		**252**	1,006
Total equity		**19,454**	20,560
Liabilities			
Gross insurance liabilities		**122,250**	152,482
Gross liabilities for investment contracts		**172,452**	222,831
Unallocated divisible surplus		**1,960**	9,736
Net asset value attributable to unitholders		**16,427**	20,301
Pension deficits and other provisions		**1,001**	1,435
Deferred tax liabilities		**1,983**	1,828
Current tax liabilities		**35**	114
Borrowings		**7,344**	9,684
Payables and other financial liabilities		**12,609**	20,667
Other liabilities		**2,959**	3,043
Liabilities of operations classified as held for sale	B4(b)	**—**	17,176
Total liabilities		**339,020**	459,297
Total equity and liabilities		**358,474**	479,857

Consolidated statement of cash flows

For the year ended 31 December 2021

The cash flows presented in this statement cover all the Group's activities and include flows from both policyholder and shareholder activities. All cash and cash equivalents are available for use by the Group.

	Note	2021 £m	2020[1] £m
Continuing operations			
Cash flows from operating activities[2]			
Cash used in operating activities		**(2,554)**	(2,128)
Tax paid		**(304)**	(857)
Total net cash used in operating activities		**(2,858)**	(2,985)
Cash flows from investing activities			
Acquisitions of, and additions to, subsidiaries, joint ventures and associates, net of cash acquired		**—**	(11)
Disposals of subsidiaries, joint ventures and associates, net of cash transferred		**23**	12
Purchases of property and equipment		**(86)**	(77)
Proceeds on sale of property and equipment		**159**	2
Purchases of intangible assets		**(22)**	(61)
Total net cash from/(used in) investing activities		**74**	(135)
Cash flows from financing activities			
Proceeds from issue of ordinary shares		**6**	3
Shares purchased in buyback		**(663)**	—
Treasury shares purchased for employee trusts		**(69)**	(2)
New borrowings drawn down, net of expenses		**229**	966
Repayment of borrowings[3]		**(2,197)**	(930)
Net (repayment)/drawdown of borrowings		**(1,968)**	36
Interest paid on borrowings		**(489)**	(532)
Repayment of leases		**(71)**	(76)
Preference dividends paid	B6	**(17)**	(17)
Ordinary dividends paid	B6	**(1,110)**	(236)
Coupon payments on direct capital instrument	B6	**—**	(27)
Dividends paid to non-controlling interests of subsidiaries		**(21)**	(21)
Other		**—**	1
Total net cash used in financing activities		**(4,402)**	(871)
Total net decrease in cash and cash equivalents from continuing operations		**(7,186)**	(3,991)
Cash flows (used in)/from discontinued operations		**(286)**	360
Cash flow on disposals from discontinued operations		**3,364**	143
Net cash flows from discontinued operations	B4(c)	**3,078**	503
Cash and cash equivalents at 1 January		**16,182**	19,434
Effect of exchange rate changes on cash and cash equivalents		**(196)**	236
Cash and cash equivalents at 31 December	B9	**11,878**	16,182

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.
2 Cash flows from operating activities include interest received of £3,605 million (2020: £4,299 million) and dividends received of £4,461 million (2020: £3,198 million).
3 2021 includes the redemption of £1.9 billion subordinated debt and senior notes. 2020 includes the redemption of 5.902% £500 million direct capital instrument.

B1 – Basis of preparation

(a) The results in this preliminary announcement have been taken from the Group's 2021 Annual Report and Accounts, which are available on the Company's website. The consolidated financial statements have been prepared and approved by the directors in accordance with UK-adopted international accounting standards and the legal requirements of the Companies Act 2006.

The basis of preparation and summary of accounting policies applicable to the Group's consolidated financial statements can be found in the Accounting policies section of the 2021 Annual Report and Accounts. The Group has adopted new amendments to published standards as described below.

The announcement within this document for the year ended 31 December 2021 does not constitute statutory accounts as defined in Section 434 of the Companies Act 2006. The results on an IFRS basis for full year 2021 and 2020 have been audited by PricewaterhouseCoopers LLP (PwC). PwC have reported on the 2021 and 2020 consolidated financial statements. Both reports were unqualified and neither contained a statement under section 498 (2) or (3) of the Companies Act 2006. The Group's 2020 Annual Report and Accounts have been filed with the Registrar of Companies.

(b) 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 consolidated financial statements are stated in pounds sterling, which is the Company's functional and presentational currency. Unless otherwise noted, the amounts shown in these financial statements are in millions of pounds sterling (£m).

Going concern

A detailed going concern review has been undertaken as part of the 2021 reporting process. This review includes consideration of the Group's current and forecast solvency and liquidity positions over a three-year period, which aligns to management's 2022-2024 business plan and evaluates the results of stress and scenario testing. Stress and scenario testing (including reverse stress testing) is used to test the resilience of business plans and to inform decision-making. These tests are driven by the Group's risk profile at a range of severities, as well as a range of other scenarios, as part of the Group solvency and liquidity management processes.

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 B8).

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

New standards, interpretations and amendments to published standards that have been adopted by the Group

The Group has adopted the following amendments to standards which became effective for the annual reporting period beginning on 1 January 2021. The amendments have been issued and endorsed by the UK and do not have a significant impact on the Group's consolidated financial statements.

(i) Amendments to IFRS 16 leases: COVID-19 related rent concessions (published by the IASB in May 2020)

(ii) Interest Rate Benchmark Reform Phase 2: Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (published by the IASB in August 2020)

B2 – Changes to comparative amounts

(a) Discontinued operations

In the first half of 2021, Aviva announced the agreement to sell its entire shareholdings in its businesses in France and Poland, its remaining Italian Life and General Insurance businesses and its joint venture in Turkey. This includes the asset management businesses in France and Poland. The completion of the disposals of controlling interests in these businesses was subsequently announced in the second half of 2021. These transactions are described in greater detail in note B4.

In accordance with IFRS 5 Non-current assets held for sale and discontinued operations, the results of these operations have been reclassified as discontinued operations in these consolidated financial statements, as they represent exits from separate major geographical areas of business. Profit from discontinued operations for the year ended 31 December 2021 has been shown as a single line in the consolidated income statement and net cash flows from discontinued operations have been shown as a single line in the consolidated statement of cash flows, with comparatives at 31 December 2020 being re-presented accordingly. Further analysis of the results from discontinued operations (including those operations classified as discontinued in 2020) is provided in note B4(c).

B3 – Exchange rates

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

	2021	2020
Eurozone		
Average rate (€1 equals)	**£0.86**	£0.88
Year end rate (€1 equals)	**£0.84**	£0.90
Canada		
Average rate ($CAD1 equals)	**£0.58**	£0.58
Year end rate ($CAD1 equals)	**£0.58**	£0.57
Poland		
Average rate (PLN1 equals)	**£0.19**	£0.20
Year end rate (PLN1 equals)	**£0.18**	£0.20

Profits/(losses) attributable to discontinued operations which have been disposed of, have been translated using the period average rate up until their disposal date. Closing balance sheets of disposed operations have been translated using the closing rate on the date of disposal for the purpose of calculating the profit/(loss) on disposal.

B4 – Strategic transactions

This note provides details of the disposals and acquisitions of subsidiaries, joint ventures and associates that the Group has made during the year, and discontinued operations.

(a) Disposals and remeasurements

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

	2021 £m	2020 £m
Disposals of discontinued operations		
Aviva France (i)[1]	**128**	—
Aviva Vita (ii)	**65**	—
Aviva Italy (iii)[2]	**233**	—
Aviva Poland (iv)	**1,671**	—
Singapore	**—**	674
Other (v)	**(9)**	58
Held for sale remeasurements of discontinued operations		
Aviva France (i)[1]	**(538)**	—
Friends Provident International Limited	**—**	(19)
Total gain on disposals and remeasurements of discontinued operations	**1,550**	713
Profit on disposal from continuing operations (vi)	**22**	12
Total gain on disposals and remeasurements	**1,572**	725

1 A £538 million loss on remeasurement in respect of Aviva France was recognised at 30 June 2021, with a subsequent £128 million gain upon disposal recognised when the disposal completed on 30 September 2021.
2. Aviva Italy excludes Aviva Vita, which is disclosed separately.

The total profit on disposal in 2021 from the transactions detailed above is calculated as follows:

	Aviva France (i) £m	Aviva Vita[2] (ii) £m	Aviva Italy[1,2] (iii) £m	Aviva Poland (iv) £m	Other (v) £m	Total £m
Assets						
Goodwill	—	—	25	23	6	54
Acquired value of in-force business and intangible assets	25	—	14	50	12	101
Interests in, and loans to, joint ventures	—	—	—	—	47	47
Interests in, and loans to, associates	77	—	—	—	—	77
Property & equipment	150	—	—	7	—	157
Investment property	5,155	—	—	—	—	5,155
Loans	564	—	—	15	—	579
Financial investments	78,375	15,790	21,484	3,194	256	119,099
Reinsurance assets	1,420	16	145	21	—	1,602
Deferred tax assets	—	—	—	—	6	6
Current tax assets	48	4	18	—	—	70
Receivables	1,297	310	351	133	9	2,100
Deferred acquisition costs	64	23	71	145	—	303
Pension surpluses and other assets	—	—	16	—	—	16
Prepayments and accrued income	724	92	124	20	17	977
Cash and cash equivalents	1,776	188	606	182	20	2,772
Total assets	**89,675**	**16,423**	**22,854**	**3,790**	**373**	**133,115**
Liabilities						
Gross insurance liabilities	19,404	2,861	10,314	3,002	232	35,813
Gross liabilities for investment contracts	55,962	11,890	10,393	2	—	78,247
Unallocated divisible surplus	4,757	974	1,107	40	—	6,878
Net asset value attributable to unitholders	2,538	—	—	—	—	2,538
Pension deficits and other provisions	98	1	13	24	—	136
Deferred tax liabilities	179	56	9	67	—	311
Current tax liabilities	—	—	—	11	—	11
Borrowings	—	—	—	—	—	—
Payables and other financial liabilities	3,573	141	162	141	—	4,017
Other liabilities[3]	1,081	107	39	53	25	1,305
Total liabilities	**87,592**	**16,030**	**22,037**	**3,340**	**257**	**129,256**
Net assets	**2,083**	**393**	**817**	**450**	**116**	**3,859**
Less: Non-controlling interests before disposal	(303)	(79)	(255)	(80)	—	(717)
Group's share of net assets disposed of	**1,780**	**314**	**562**	**370**	**116**	**3,142**
Gross consideration	**2,752**	**386**	**746**	**2,034**	**237**	**6,155**
Less: repayment of intercompany loans[3]	(957)	(34)	—	—	—	(991)
Less: transaction costs	(35)	(4)	(17)	(13)	(9)	(78)
Consideration (net of transaction costs)	**1,760**	**348**	**729**	**2,021**	**228**	**5,086**
Reserves recycled to the income statement	148	31	66	20	(121)	144
Profit/(loss) on disposal of discontinued operations	**128**	**65**	**233**	**1,671**	**(9)**	**2,088**
Other disposals from continuing operations (vi)						**22**
Total profit on disposal						**2,110**

1 Aviva Italy excludes Aviva Vita, which is disclosed separately.
2 The net assets of Aviva Italy that were disposed on 1 December 2021 include a portfolio of contracts transferred from Aviva Vita on 31 October 2021, when Aviva Vita was no longer part of the Group.
3 Consideration for Aviva France and Aviva Vita was received gross of intercompany loans worth £957 million and £34 million respectively. These loan liabilities are included within the Other liabilities account on the disposal balance sheet.

(i) Aviva France

On 23 February 2021, Aviva announced the sale of its entire shareholding in Aviva France to Aéma Group for cash consideration of €3,200 million (approximately £2,752 million), including €1,100 million (approximately £957 million) in respect of Aviva France's intra-group debt.

The transaction covered the French life, general insurance and asset management businesses and the 75% shareholding in L'Union Financière de France, a wealth manager listed on the Paris Bourse.

The fair value of the consideration, net of settlement of Aviva France's intra-group debt and estimated costs to sell, was £1,760 million. At 30 June 2021, the carrying amount of the Group's holding in France was higher than the fair value of consideration less costs to sell, and therefore a loss on remeasurement of £538 million was recognised in accordance with IFRS 5 Non-current assets held for sale and discontinued operations.

The transaction completed on 30 September 2021, resulting in a profit on disposal of £128 million and a net £410 million charge over the year as calculated below:

	2021 £m
Loss on remeasurement at 30 June 2021	**(538)**
Subsequent profit after tax attributable to shareholders until completion of disposal	(25)
Reduction in estimated disposal costs	5
Loss on disposal before reserve recycling	**(20)**
Reserves recycled to the income statement	148
Profit on disposal	**128**
Net charge on disposal	**(410)**

In addition, a reinsurance quota share treaty accepted by the Group from the disposed general insurance entity was terminated on 31 December 2021.

(ii) Aviva Vita (Italy)

On 23 November 2020, Aviva announced the sale of its entire 80% shareholding in the Italian Life Insurer Aviva Vita S.p.A. (Aviva Vita) to its partner UBI Banca. The transaction completed on 1 April 2021 and resulted in a profit on disposal of £65 million.

(iii) Aviva Italy

On 4 March 2021, the Group entered into agreements to sell its remaining Italian Life and General Insurance businesses (Aviva Italy). The sale of the remaining life businesses primarily comprised the entire 100% shareholding in Aviva Life S.p.A. and the 51% shareholding in Aviva S.p.A. to CNP Assurances for cash consideration of €543 million (approximately £466 million). The sale of the general insurance business comprised the entire 100% shareholding in Aviva Italia S.p.A. to Allianz for cash consideration of €330 million (approximately £283 million). The transactions to sell the General Insurance and Life Insurance businesses completed on 1 October 2021 and 1 December 2021 respectively, with a total profit on disposal of £233 million.

The net assets of Aviva Italy's disposed life business included a portfolio of participating investment contracts transferred from Aviva Vita on 31 October, when Aviva Vita was no longer part of the Group, for cash consideration of £7 million (€8 million). The portfolio comprised £1,160 million of total assets and £1,160 million of total liabilities at the date of disposal of Aviva Italy's life business.

(iv) Aviva Poland

On 26 March 2021, Aviva announced the sale of its entire shareholding in its life insurance business in Poland and Lithuania, and its Polish general insurance, asset management and pensions businesses, to Allianz for net cash consideration of €2,369 million (approximately £2,034 million). The transaction completed on 30 November 2021 resulting in a profit on disposal of £1,671 million.

(v) Other disposals classified as discontinued operations

On 24 February 2021, Aviva announced the sale of its entire 40% shareholding in its joint venture in Turkey, AvivaSA Emeklilik ve Hayat AS (AvivaSA), to Ageas Insurance International N.V. for cash consideration of £122 million. The transaction completed on 6 May 2021, resulting in a loss on disposal of £41 million which included a £112 million loss in relation to recycling of the currency translation reserve to the income statement.

On 14 December 2020, Aviva announced the sale of its entire shareholding in Aviva Vietnam Life Insurance Limited to Manulife Financial Asia Limited. The transaction completed on 29 December 2021 and resulted in a profit on disposal of £32m which included a £9 million loss in relation to the recycling of the currency translation reserve to the income statement.

(vi) Other disposals from continuing operations

A £22 million gain on disposals from continuing operations is comprised of small disposals in UK Health, UK General Insurance and Canada.

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

There are no assets and liabilities of operations classified as held for sale as at 31 December 2021. The assets and liabilities classified as held for sale as at 31 December 2020 were as follows:

	2021 £m	2020 £m
Assets		
Acquired value of in-force business and other intangible assets	—	18
Interests in, and loans to, joint ventures and associates	—	—
Property and equipment	—	69
Investment property	—	—
Loans	—	—
Financial investments	—	16,907
Reinsurance assets	—	18
Other assets	—	531
Cash and cash equivalents	—	190
Total assets	—	17,733
Liabilities		
Gross insurance liabilities	—	3,166
Gross liabilities for investment contracts	—	12,425
Unallocated divisible surplus	—	1,234
Net assets attributable to unit holders	—	—
Borrowings	—	43
Other liabilities	—	308
Total liabilities	—	17,176
Net assets	—	557

Assets and liabilities classified as held for sale at 31 December 2020 related primarily to the expected disposal of Aviva Vita and of the Group's operations in Vietnam.

Cumulative income recognised in other comprehensive income relating to disposal groups classified as held for sale is as follows:

Operations classified as held for sale	31 December 2021 Total £m	31 December 2020 Total £m
Cumulative income recognised in other comprehensive income	—	32

(c) Discontinued operations

In accordance with IFRS 5 Non-current assets held for sale and discontinued operations, the results of the operations specified in note B2 have been reclassified as discontinued operations in these consolidated financial statements. Profit from discontinued operations for the year ended 31 December 2021 has been shown as a single line in the consolidated income statement and net cash flows from discontinued operations have been shown as a single line in the consolidated statement of cash flows, with the comparatives at 31 December 2020 being re-presented accordingly. Notes to the consolidated statement of financial position are presented on a total group basis and, as a result, income statement and cash flow movements included within these notes may not reconcile to those presented in the consolidated income statement and the consolidated statement of cash flows.

Further analysis of the results and cash flows for the discontinued operations presented in the consolidated financial statements are analysed below. The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B1.

Income Statement

Discontinued operations	2021 £m	2020 £m
Gross written premiums	**10,194**	11,896
Premiums ceded to reinsurers	**(115)**	(325)
Net written premiums	**10,079**	11,571
Net change in provision for unearned premiums	**(41)**	(25)
Net earned premiums	**10,038**	11,546
Net investment income	**1,430**	4,478
Other income	**500**	748
Share of profit after tax of joint ventures and associates	**10**	18
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	**1,550**	713
Total income	**13,528**	17,503
Claims and benefits paid, net of recoveries from reinsurers	**(6,426)**	(8,766)
Change in insurance liabilities, net of reinsurance	**(3,732)**	(1,914)
Change in investment contract provisions	**(2,207)**	(819)
Change in unallocated divisible surplus	**2,074**	(2,194)
Other expenses	**(1,464)**	(2,061)
Total expenses	**(11,755)**	(15,754)
Profit before tax from discontinued operations	**1,773**	1,749
Tax attributable to policyholders' returns	**—**	(44)
Profit before tax attributable to shareholders' profits from discontinued operations	**1,773**	1,705
Tax attributable to shareholders' profits	**(73)**	(261)
Profit for the year from discontinued operations	**1,700**	1,444

Reconciliation of Group adjusted operating profit to profit for the year

Discontinued operations	2021 £m	2020 £m
Group adjusted operating profit from discontinued operations	**631**	1,355
Adjusted for the following:		
Reclassification of unallocated interest	**(37)**	(53)
Life business: Investment variances and economic assumption changes	**(171)**	(166)
Non-life business: Short-term fluctuation in return on investments	**(28)**	(43)
General insurance and health business: Economic assumption changes	**(5)**	(20)
Impairment of goodwill, joint ventures, associates and other amounts expensed	**—**	(1)
Amortisation and impairment of intangibles acquired in business combinations	**(12)**	(14)
Amortisation and impairment of acquired value of in-force business	**(1)**	(66)
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	**1,550**	713
Other[1]	**(154)**	—
Adjusting items before tax	**1,142**	350
Profit before tax attributable to shareholders' profits from discontinued operations	**1,773**	1,705

1 Other in 2021 comprise net charges of £78 million from onerous contracts and indemnity provisions arising from acquisition and disposal activity and a £76 million charge associated with reinsurance accepted from the former Aviva France general insurance entity.

Other Comprehensive Income

Discontinued operations	2021 £m	2020 £m
Other comprehensive income from discontinued operations:		
Items that may be reclassified subsequently to income statement		
Investments classified as available for sale		
Fair value (losses)/gains	**(62)**	23
Fair value losses transferred to profit on disposals	**(16)**	(7)
Share of other comprehensive income of joint venture and associates	**—**	1
Foreign exchange rate movements	**(182)**	186
Aggregate tax effect - shareholder tax on items that may be reclassified	**19**	(2)
Total other comprehensive (loss)/income for the year from discontinued operations	**(241)**	201

Cash flows

Discontinued operations	2021 £m	2020 £m
Total net cash (used in)/from operating activities	**(232)**	403
Cash proceeds from disposal of subsidiaries, joint ventures and associates	**6,136**	1,208
Less: Net cash and cash equivalents divested with subsidiaries	**(2,772)**	(1,065)
Other investing activities	**(14)**	(26)
Total net cash from investing activities	**3,350**	117
Total net cash used in financing activities	**(40)**	(17)
Net cash flows from discontinued operations	**3,078**	503

(d) Acquisitions

There have been no material acquisitions in 2021. In 2020, 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 became a wholly owned subsidiary.

(e) Significant restrictions

In certain jurisdictions the ability of subsidiaries to transfer funds to the Group in the form of cash dividends or to repay loans and advances is subject to local corporate or insurance laws and regulations and solvency requirements. There are no protective rights of non-controlling interests which significantly restrict the Group’s ability to access or use the assets and settle the liabilities of the Group.

(f) Subsequent events

(i) Succession Wealth

On 1 March 2022, Aviva entered into an agreement to acquire Succession Jersey Limited ("Succession Wealth") for consideration of £385 million. The transaction significantly enhances Aviva's presence in the fast-growing UK wealth market as more people seek advice for their retirement options. The transaction is subject to regulatory approval and is expected to complete in 2022. The transaction is not expected to have a material impact on the Group's IFRS net asset value.

B5 – 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 during the year. The comparative amounts in (a) and (b) have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.

(a) Basic earnings per share

(i) The profit attributable to ordinary shareholders is:

			2021			2020
	Group adjusted operating profit £m	Adjusting items £m	Total £m	Group adjusted operating profit £m	Adjusting items £m	Total £m
Continuing operations						
Profit before tax attributable to shareholders’ profits	**1,634**	**(1,078)**	**556**	1,806	(37)	1,769
Tax attributable to shareholders’ profits	**(330)**	**110**	**(220)**	(323)	20	(303)
Profit from continuing operations	**1,304**	**(968)**	**336**	1,483	(17)	1,466
Amount attributable to non-controlling interests	**(21)**	**—**	**(21)**	(21)	—	(21)
Cumulative preference dividends for the year	**(17)**	**—**	**(17)**	(17)	—	(17)
Coupon payments in respect of DCI (net of tax)	**—**	**—**	**—**	(27)	—	(27)
Profit attributable to ordinary shareholders from continuing operations	**1,266**	**(968)**	**298**	1,418	(17)	1,401
Profit attributable to ordinary shareholders from discontinued operations	**441**	**1,209**	**1,650**	967	386	1,353
Profit attributable to ordinary shareholders	**1,707**	**241**	**1,948**	2,385	369	2,754

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

	2021			2020		
	Before tax £m	**Net of tax, NCI and preference dividends £m**	**Per share p**	Before tax £m	Net of tax, NCI, preference dividends and DCI £m	Per share p
Continuing operations						
Group adjusted operating profit attributable to ordinary shareholders[1]	**1,634**	**1,266**	**32.5**	1,806	1,418	36.1
Adjusting items:						
Reclassification of unallocated interest	**37**	**37**	**1.0**	53	53	1.4
Life business: Investment variances and economic assumption changes	**(634)**	**(549)**	**(14.1)**	340	277	7.1
Non-life business: Short-term fluctuation in return on investments	**(121)**	**(76)**	**(1.9)**	(21)	(15)	(0.4)
General insurance and health business: Economic assumption changes	**(80)**	**(65)**	**(1.7)**	(84)	(67)	(1.7)
Impairment of goodwill, joint ventures, associates and other amounts expensed	**—**	**—**	**—**	(29)	(27)	(0.7)
Amortisation and impairment of intangibles acquired in business combinations	**(54)**	**(47)**	**(1.2)**	(62)	(47)	(1.2)
Amortisation and impairment of acquired value of in-force business	**(198)**	**(234)**	**(6.0)**	(212)	(172)	(4.4)
Profit/(loss) on disposal and remeasurement of subsidiaries, joint ventures and associates	**22**	**(6)**	**(0.2)**	12	12	0.3
Other	**(50)**	**(28)**	**(0.7)**	(34)	(31)	(0.8)
Profit attributable to ordinary shareholders from continuing operations	**556**	**298**	**7.7**	1,769	1,401	35.7
Discontinued operations						
Group adjusted operating profit attributable to ordinary shareholders[1]	**631**	**441**	**11.3**	1,355	967	24.7
Adjusting items	**1,142**	**1,209**	**31.1**	350	386	9.8
Profit attributable to ordinary shareholders from discontinued operations	**1,773**	**1,650**	**42.4**	1,705	1,353	34.5
Profit attributable to ordinary shareholders	**2,329**	**1,948**	**50.1**	3,474	2,754	70.2

1 Group adjusted operating earnings per share from continuing operations and discontinued operations is 43.8p (2020: 60.8p).

(iii) The calculation of basic earnings per share uses a weighted average of 3,889 million (2020: 3,925 million) ordinary shares in issue, after deducting treasury shares. The actual number of shares in issue at 31 December 2021 was 3,766 million (2020: 3,928 million) or 3,754 million (2020: 3,926 million) excluding treasury shares.

(iv) On 12 August 2021, the Group announced a share buyback of ordinary shares for an aggregate purchase price of up to £750 million. On 16 December 2021 Aviva announced the increase and extension of the share buyback programme to £1 billion. In the year ended 31 December 2021, £663 million of shares had been purchased and shares with a nominal value of £42 million have been cancelled, giving rise to an additional capital redemption reserve of an equivalent amount.

(b) Diluted earnings per share

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

	2021			2020		
	Total £m	**Weighted average number of shares million**	**Per share p**	Total £m	Weighted average number of shares million	Per share p
Continuing operations						
Profit attributable to ordinary shareholders	**298**	**3,889**	**7.7**	1,401	3,925	35.7
Dilutive effect of share awards and options		**33**	**(0.1)**		19	(0.2)
Diluted earnings per share from continuing operations	**298**	**3,922**	**7.6**	1,401	3,944	35.5
Discontinued operations						
Profit attributable to ordinary shareholders	**1,650**	**3,889**	**42.4**	1,353	3,925	34.5
Dilutive effect of share awards and options		**33**	**(0.3)**		19	(0.2)
Diluted earnings per share from discontinued operations	**1,650**	**3,922**	**42.1**	1,353	3,944	34.3
Diluted earnings per share	**1,948**	**3,922**	**49.7**	2,754	3,944	69.8

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

	2021			2020		
	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p
Continuing operations						
Group adjusted operating profit attributable to ordinary shareholders	**1,266**	**3,889**	**32.5**	1,418	3,925	36.1
Dilutive effect of share awards and options		**33**	**(0.2)**		19	(0.2)
Diluted group adjusted operating profit per share from continuing operations	**1,266**	**3,922**	**32.3**	1,418	3,944	35.9
Discontinued operations						
Group adjusted operating profit attributable to ordinary shareholders	**441**	**3,889**	**11.3**	967	3,925	24.7
Dilutive effect of share awards and options		**33**	**(0.1)**		19	(0.1)
Diluted group adjusted operating profit per share from discontinued operations	**441**	**3,922**	**11.2**	967	3,944	24.6
Diluted group adjusted operating profit per share	**1,707**	**3,922**	**43.5**	2,385	3,944	60.5

B6 – Dividends and appropriations

This note analyses the total dividends and other appropriations paid during the year, as set out in the table below. Details are also provided of the proposed final dividend for 2021, which is not accrued in these financial statements and is therefore excluded from the table.

	2021 £m	2020 £m
Ordinary dividends declared and charged to equity in the year		
Interim 2021 – 7.35 pence per share, paid on 7 October 2021	**286**	—
Interim 2020 – 7.00 pence per share, paid on 21 January 2021	**275**	—
Final 2020 – 14.00 pence per share, paid on 14 May 2021	**549**	—
Second Interim 2019 – 6.00 pence per share, paid on 24 September 2020	**—**	236
Final 2019 – 21.40 pence per share, withdrawn on 8 April 2020	**—**	—
	1,110	236
Preference dividends declared and charged to equity in the year	**17**	17
Coupon payments on direct capital instrument	**—**	27
	1,127	280

Subsequent to 31 December 2021, the directors proposed a final dividend for 2021 of 14.70 pence per ordinary share, amounting to £545 million in total. The cash value of the dividend is calculated using 3,710 million shares as at 25 February 2022 representing issued shares eligible for dividend payment. Subject to approval by shareholders at the AGM, the dividend will be paid on 18 May 2022 and will be accounted for as an appropriation of retained earnings in the year ending 31 December 2022. The final dividend amount per ordinary share for 2021 is impacted by the share buyback programme. See note 32 of the 2021 Annual Report & Accounts for more information on share buybacks.

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, the date on which the DCI was redeemed. Interest payable up to 23 June 2020 was recorded as an appropriation of retained profits with the remaining interest payable from 24 June 2020 until the redemption date recorded within profit before tax attributable to shareholders' profits.

B7 – Related party transactions

This note gives details of the transactions between Group companies and related parties which comprise our joint ventures, associates and staff pension schemes.

The Group undertakes transactions with related parties in the normal course of business. Loans to related parties are made on normal arm's-length commercial terms.

Services provided to, and by related parties

	2021				2020			
	Income earned in the year £m	Expenses incurred in the year £m	Payable at year end £m	Receivable at year end £m	Income earned in the year £m	Expenses incurred in the year £m	Payable at year end £m	Receivable at year end £m
Associates	**36**	**—**	**—**	**9**	12	(1)	—	6
Joint ventures	**36**	**—**	**—**	**1**	27	—	—	1
Employee pension schemes	**12**	**—**	**—**	**6**	11	—	—	6
	84	**—**	**—**	**16**	50	(1)	—	13

Transactions with joint ventures in the UK relate to the property management undertakings, the most material of which are listed in note 18(a)(iii) of the 2021 Annual Report and Accounts. The Group has equity interests in these joint ventures, together with the provision of administration services and financial management to many of them. Our fund management companies also charge fees to these joint ventures for administration services and for arranging external finance.

Key management personnel of the Company may from time to time purchase insurance, savings, asset management or annuity products marketed by group companies on equivalent terms to those available to all employees of the Group. In 2021, other transactions with key management personnel were not deemed to be significant either by size or in the context of their individual financial positions.

Our UK fund management companies manage most of the assets held by the Group's main UK staff pension scheme, for which they charge fees based on the level of funds under management. The main UK scheme holds investments in Group-managed funds and insurance policies with other group companies, as explained in note 49(b)(ii) of the 2021 Annual Report and Accounts. As at 31 December 2021, the Friends Provident Pension Scheme ('FPPS'), acquired in 2015 as part of the acquisition of the Friends Life business, held an insurance policy of £625 million (2020: £667 million) issued by a group company, which eliminates on consolidation.

The related parties' receivables are not secured and no guarantees were received in respect thereof. The receivables will be settled in accordance with normal credit terms.

During the year, the Aviva Staff Pension Scheme (ASPS) completed three (2020: one) bulk annuity buy-in transactions with Aviva Life & Pensions UK Limited (AVLAP). Total premiums of £2,456 million (2020: £873 million) were paid by the scheme to AVLAP, with AVLAP recognising total gross liabilities of £2,184 million (2020: £737 million). The difference between the premiums and the gross liabilities implies profit[1] of £272 million (2020: £136 million), which does not include costs incurred by the Group associated with the transactions, and is driven primarily by differences between the measurement bases used to calculate the premium and the accounting value of the associated gross liabilities. The ASPS recognised the total plan assets of £1,760 million (2020: £579 million), with the difference between the plan assets recognised and the premiums paid being recognised as an actuarial loss through Other Comprehensive Income. As at 31 December 2021, AVLAP recognised cumulative technical provisions of £4,264 million (2020: £2,147 million) in relation to buy-in transactions with the ASPS which have been included within the Group's gross liabilities, and the ASPS held a transferable plan asset of £3,543 million (2020: £1,858 million) which does not eliminate on consolidation.

1. The implied IFRS profit is not equivalent to the margin used in the calculation of our Alternative Performance Measure 'New business margin'. This is calculated as the 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. Please refer to the Other Information section for the definitions of VNB and PVNBP.

B8 – 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 diversify these risks through our scale, 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.

Looking forward, these risks may be magnified or dampened by current and emerging external trends (including those set out in 'Principal emerging trends and causal factors' section of the Annual Report and Accounts) which may impact our current and longer-term profitability and viability, in particular our ability to write profitable new business.

This includes the strategic risk of failing to develop and execute a strategy that addresses and takes advantage of these trends. The 'Principal emerging risk trends and causal factors' table in this section describes these trends, their impact, future outlook and how we manage these risks.

How we manage risk

Our Risk Management Framework comprises our systems of governance, risk management processes and risk appetite framework. It applies Group-wide, ensuring a rigorous and consistent approach to risk management is embedded across the business.

Our governance

This includes risk policies and business standards, risk oversight committees (both Board and Management) and clearly defined roles and responsibilities. Line management in the business is accountable for risk management which, together with the risk function and internal audit, form our 'three lines of defence'. The roles and responsibilities of the Customer, Conduct and Reputation Committee, Audit and Risk Committees in relation to the oversight of risk management and internal control is set out in the 'Directors' and Corporate Governance report'.

Our risk process

The processes we use to identify, measure, manage, monitor and report risks, including the use of our risk models, and stress and scenario testing, are designed to enable dynamic risk-based decision-making and effective day-to-day risk management. Having identified the risks of our business and measured their impact, depending on our risk appetite, we either accept these risks or take action to reduce, transfer or mitigate them. The standards required are set out in our risk policies that all in the business need to adhere to.

Our risk appetite framework

This refers to the risks that we select in pursuit of our strategic objectives. Our risk preferences define the risks that we prefer, accept or avoid. In 2021, we added a risk appetite for conduct risk explicitly referencing good customer outcomes and integrated climate risk into our risk appetite framework, defined our climate risk appetite and incorporated climate risks into our business planning, to facilitate risk-based decision-making. See 'Our climate-related financial disclosure' for more information.

Types of risk inherent to our business model:

Risks customers transfer to us

- Life insurance risk includes longevity risk (annuity customers living longer than we expect), mortality risk (customers with life protection), expense risk (the amount it costs us to administer policies) and persistency risk (customers lapsing or surrendering their policies).

- General insurance risk arises from loss events (fire, flooding, windstorms, accidents etc) and inflation (on expenses and claims). Health insurance exposes the Group to morbidity risk (the proportion of our customers falling sick) and medical expense inflation.

Risks arising from our investments
- Credit risks (actual defaults and market expectation of defaults) create uncertainty in our ability to offer a minimum investment return on our investments.
- Liquidity risk is the risk of not being able to make payments when they become due because there are insufficient assets in cash form.
- Market risks result from fluctuations in asset values, including equity prices, property prices, foreign exchange, inflation and interest rates.

Risks from our operations and other business risks
- Operational risk is the risk of direct or indirect loss, arising from inadequate or failed internal processes, people and systems, or external events including changes in the regulatory environment.
- Conduct risk is the risk of causing harm to our customers, the markets in which we operate or our regulatory relationships.
- Asset management risk is the risk of customers redeeming funds, not investing with us, or switching funds, resulting in reduced fee income.

Principal risk types

While the types of risk to which the Group is exposed have not changed significantly over the year, we have de-risked our risk profile through our business divestment programme and strengthened our risk and control framework to manage these risks . All of the risks below, and in particular operational risks, may have an adverse impact on our brand and reputation.

Risk preference	Mitigation
Credit Risk We take a balanced approach to credit and believe we have the expertise to manage it and the structural investment advantages conferred to insurers with long-dated, relatively illiquid liabilities that enables us to earn superior investment returns. For more information see Note 57b - Risk Management: Credit risk of the 2021 Aviva plc Annual Report and Accounts.	• Risk frameworks considering macroeconomic risk tolerances, which includes credit risk • Credit limit framework imposes limits on credit concentration by issuer, sector and type of instrument • Investment restrictions on certain sovereign and corporate exposures • Credit risk hedging programme and asset de-risking
Market Risk We actively seek some market risks as part of our investment and product strategy. We have a limited appetite for interest rate and property risks as we do not believe that these are adequately rewarded. For more information see Note 57c - Risk Management: Market risk of the 2021 Aviva plc Annual Report and Accounts.	• Risk frameworks considering macroeconomic risk tolerances, which includes market risk • Active asset management and hedging in business units. Group-level equity and foreign exchange hedging. • Pension fund active risk management • Through product design , asset and liability duration matching limits impact of interest rate changes
Life insurance risk We take measured amounts of life insurance risk provided we have the appropriate core skills in underwriting and pricing. For more information see Note 57e - Risk Management: Life insurance risk of the 2021 Aviva plc Annual Report and Accounts.	• Risk selection (includes risk tolerance for longevity risk) and underwriting on acceptance of new business • Longevity swaps covering pensioner-in-payment scheme liabilities • Product development and management framework ensures products and propositions meet customer needs • Use of reinsurance on longevity risk for our annuity business and the staff pension scheme
General insurance and health risk We take general insurance risk in measured amounts for explicit reward, in line with our core skills in underwriting and pricing. We have a preference for those risks that we understand well, that are intrinsically well managed and where there is a spread of risks in the same category. General insurance risk diversifies well with our Life Insurance and other risks. For more information see Note 57f - Risk Management: General insurance and health risk of the 2021 Aviva plc Annual Report and Accounts.	• Use of reinsurance to reduce the financial impact of a catastrophe and manage earnings volatility. • Application of robust and consistent reserving framework to derive best estimate with results subject to internal and external review, including independent reviews and audit reviews • Extensive use of data, financial models and analysis to improve pricing and risk selection • Underwriting appetite framework linked to delegations of authority that govern underwriting decisions/limits • Product development and management framework that ensures products meet customer needs

Risk preference	Mitigation
Liquidity Risk: 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. For more information see Note 57d - Risk Management: Liquidity risk of the 2021 Aviva plc Annual Report and Accounts.	• Maintaining committed borrowing facilities from banks and commercial paper issuance • Ensure cash flows are sufficient to meet liabilities through asset liability matching methodology • Use of our limit framework covering minimum liquidity cover ratio and minimum Group Centre liquidity • Contingency funding plan in place to address liquidity funding requirements in a significant stress scenario
Asset management risk: Risks specific to asset management should generally be reduced to as low a level as is commercially sensible, on the basis that taking on these risks will rarely provide us with an upside. For more information see Note 57g - Risk Management: Asset management risk of the 2021 Aviva plc Annual Report and Accounts.	• Product development and review process with propositions based on customer needs • Investment performance and risk management oversight and review process • Client relationship teams managing client retention risk
Operational Risk: Operational risk, including conduct risk, should generally be reduced to as low a level as is commercially sensible. For more information see Note 57h - Risk Management: Operational risk of the 2021 Aviva plc Annual Report and Accounts.	• Our Operational Risk & Control Management Framework which includes the tools, processes and standardised reporting necessary to identify, measure, manage, monitor and report on the operational risks • Scenario-based approach to determine appropriate level of capital to be held in respect of operational risks • Improving the resilience and reliability of our systems and IT security to protect ours and our customers' data • Monitoring the potential conduct exposures and the key drivers of these, taking action to mitigate harm • Implementing mitigating controls to ensure all risks associated with our disposals are appropriately addressed

Information extracted from the Strategic Report of the 2021 Aviva plc Annual Report and Accounts and therefore is not subject to external audit

Principal emerging trends and causal factors

This table describes the emerging trends and causal factors impacting our inherent risks, their impact, future outlook and how we take action to manage these risks. We consider the individual and aggregate impact from these trends when designing and implementing our risk management processes:

Key trends and movement	Risk management	Outlook
Economic & credit cycle – uncertainty over prospects for future macroeconomic growth (including the impact of the conflict between Russia and Ukraine), inflation, credit and current low interest rates, and the response of Central Banks, could adversely impact the valuation of our investments or credit default experience. This could also impact the level of the returns we can offer to customers going forwards and our ability to profitably meet our promises of the past. Trend: Uncertain Risks impacted: Credit risk, Market risk, Liquidity risk	We limit the sensitivity of our balance sheet to investment risks. While interest rate exposures are complex, we aim to closely duration-match assets and liabilities and take additional measures to limit interest rate risk. We hold substantial capital against market risks, and we protect our capital with a variety of hedging strategies to reduce our sensitivity to shocks. We regularly monitor our exposures and employ both formal and ad-hoc processes to evaluate changing market conditions. Other actions taken in the past include reducing sales of products with guarantees and shifting our sales towards protection and unit-linked products.	The follow-on effects of the financial stimulus measures to cope with the pandemic are now coming more into focus including the impact of interest rate rises, risk of a deflating asset bubble and the risk of inflation (potentially impacting credit quality of counterparties, as well as squeezing real wages adversely impacting discretionary saving, insurance new business and renewals and lapse risk). While inflation pressures are expected to recede in 2023, there is a risk inflation becomes entrenched and persistent. The Group's balance sheet has hedges in place to mitigate these risks.

Key trends and movement	Risk management	Outlook
Changes in public policy – any change in public policy (government or regulatory) could influence the demand for, and profitability of, our products. In some markets there are (or could be in the future) restrictions and controls on premium rates, rating factors and charges. The nature of the UK relationship with the EU and the EU's treatment of 3rd countries in respect of financial services has implications for our business models for our asset management and insurance businesses in the EU. Trend: Uncertain Risks impacted: Operational risk	We actively engage with governments and regulators globally in the development of public policy and regulation. We do this to understand how public policy may change and to help ensure better outcomes for our customers and the Group. The Group's multi-channel distribution and product strategy and geographic diversification, although reduced following the divestment programme, underpin the Group's adaptability to public policy risk, and often provides a hedge to the risk. For example, since the end of compulsory annuitisation in the UK, we have compensated for falling sales of individual annuities by increasing sales of other pension products – particularly bulk purchase annuities. We continue to actively monitor developments in EU policy towards third countries such as the UK, which could impact our business model and identify contingent management actions to address these.	In the UK pressure on public finances may result in further erosion of tax relief for pension savings, and increase in Insurance Premium Tax. The FCA expect to confirm new consumer duty rules by end-July 2022, while new PRA and FCA regulations on operational resilience take effect end-March 2022. In Ireland the regulator has expressed concerns over renewal pricing and is expected to adopt reforms similar to those recently implemented in the UK. In Canada, where motor premium increases are approved by provincial regulators, pressure to minimise these will persist. The Future Regulatory Framework Review will determine the post Brexit regulatory and policy settlement, which will have a direct bearing on the outcome of the UK Solvency II review. The UK and EU separate reviews of Solvency II continue through 2022. Both reviews could impact the amount of prudential capital our businesses are required to hold in the UK and EU. EU policy towards financial services provided from third countries continues to incrementally harden. Some restrictions on delegation of asset management activities to the UK are expected in the Alternative Investment Fund Managers Directive (AIFMD) review. Emerging UK policy on data potentially threaten data adequacy with the EU.
New technologies & data – failure to understand and react to the impact of new technology and its effect on customer behaviour and how we distribute products could potentially result in our business model becoming obsolete. Failure to keep pace with the use of data to price more accurately and to detect insurance fraud could lead to loss of competitive advantage and underwriting losses. Trend: Stable Risks impacted: Operational risk	Aviva continues to develop our data science capabilities to both inform and enable improvements in the customer journey, our understanding of how customers interact with us and our underwriting disciplines. Our Data Charter sets out our public commitment to use data responsibly and securely.	Data mastery and the effective use of 'Big Data' through artificial intelligence and advanced analytics has and will continue to be a critical driver of competitive advantage for insurers. However, this will be subject to increasing regulatory scrutiny to ensure this is being done so in an ethical, transparent and secure way. The competitive threat to traditional insurers will continue to persist with the potential for big technology companies and low cost innovative digital start-ups to grow their footprint in the insurance market, where previously underwriting capability, risk selection and required capital have proven to be a sufficient barrier to entry.

Key trends and movement	Risk management	Outlook
Climate change – potentially resulting in higher than expected weather-related claims (including business continuity claims), inaccurate pricing of general insurance risk, possible changes in morbidity and/or mortality rates, reputational impact from not being seen as a responsible steward/ investor, as well as adversely impacting economic growth and investment markets. This also includes transition risks for our investments relating to the impact of the transition to a low carbon economy and litigation risk where we provide insurance cover. Trend: Increasing Risks impacted: General insurance risk, Life insurance risk, Credit risk, Market risk	Our climate-related financial disclosure sets out how Aviva incorporates climate-related risks and opportunities into governance, strategy, risk management, metrics (e.g. Climate Value-at-Risk) and targets. We are committed to aligning our business to the 1.5°C Paris Agreement target and plan to be a Net Zero company by 2040. The Group CRO was responsible for overseeing the embedding of a framework for ensuring climate-related risks and opportunities are identified, measured, monitored, managed and reported through our risk management framework and in line with our risk appetite.	Aviva considers climate change to be a significant long-term risk to our business model. Global average temperatures over the last five years have been the hottest on record. Despite the UNFCCC Paris agreement, the current trend of increasing CO_2 emissions is expected to continue, in the absence of radical action by governments, with global temperatures likely to exceed pre-industrial levels by at least 2°C and weather events (floods, droughts and windstorms) increasing in frequency and severity. Disclosure of potential impacts against various climate scenarios and time horizons will become increasingly common for all companies.
Cyber crime – criminals (including state sponsored activity) may attempt to access our IT systems to steal or utilise company and customer data, or plant malware viruses to access customer or company funds, and/ or damage our reputation and brand. Trend: Increasing Risks impacted: Operational risk	Aviva has invested significantly in cyber security with automated controls to protect our data and critical IT services. In response to the changing threat environment Aviva has increased the level of anti-malware protection during 2021 enhancing our ability to identify, detect and prevent such attacks. Aviva has extensive operational measures to assess and respond to data breaches and has continued to monitor the threat environment and enhance its IT infrastructure and cyber controls to prevent attacks. Aviva's cyber defences are regularly tested using our own 'ethical hacking' team as well as through using external penetration testing to evaluate our infrastructure. Aviva uses the Information Security Forum (ISF) Standard of Good Practice and cross references to ISO 27001 and the NIST Cybersecurity Framework. Aviva conducts regular internal audits using the financial services three lines of defence model and are audited externally at least annually.	High profile cyber security incidents have continued to impact corporates globally due to the increased use of destructive malware/ ransomware. The cyber threat is expected to persist in 2022 with increasing levels of sophistication and industrialisation anticipated. Aviva continuously monitors the external threat environment to ensure that our cyber investment and the effectiveness of our controls remains appropriate to mitigate the continued and changing nature of the cyber threat.

Key trends and movement	Risk management	Outlook
Longevity advancements (e.g. due to medical advances) – these contribute to an increase in life expectancy of our annuity customers and thus future payments over their lifetime may be higher than we currently expect. Trend: Stable Risks impacted: Life insurance risk (longevity)	We monitor our own experience carefully and analyse external population data to identify emerging trends. Detailed analysis of the factors that influence mortality informs our pricing and reserving policies. We add qualitative medical expert inputs to our statistical analysis and analyse factors influencing mortality and trends in mortality by cause of death. We also use longevity swaps to hedge some of the longevity risk from the Aviva Staff Pension Scheme and longevity reinsurance for bulk purchase annuities and for some of our individual annuity business.	There is considerable uncertainty as to whether the improvements in life expectancy that have been experienced over the last 40 years will continue into the future. In particular, there is likely to be a reduced level of improvement from the two key drivers of recent improvements, smoking cessation (as you can only give up smoking once) and the use of statins in the treatment of cardiovascular disease (where the most significant benefit from use in higher risk groups has now been seen). Despite continued medical advances emerging, dietary changes, increasing obesity and strains on public health services have slowed the historical trend since around 2011. In the UK, this has led to some significant industry-wide longevity reserve releases in recent years, as the assumptions around future longevity improvements have been weakened. The potential impact of the COVID-19 pandemic on medium and longer term longevity projections, via ongoing direct effects (e.g. endemic COVID-19) or via indirect effects (e.g. strains on the NHS), also adds to the uncertainty but we do not currently anticipate a material impact on the overall outlook.

Key trends and movement	**Risk management**	**Outlook**
Talent – an ageing workforce and new technologies requiring new skills will make recruitment, retention and investing in talent increasingly important. Trend: Increasing Risks impacted: Operational risk	To attract and retain talent we have various internal talent development programmes and a broad variety of graduate and apprentice schemes. In 2021 we launched the new Aviva University, promoting life-long learning for colleagues enabling them to focus on developing key skills such as digital/data and change management. We launched a new talent strategy and career compass, designed to enable colleagues to have brilliant career conversations. Our retention measures include innovative policies such as flexible working and equal parental leave as well as providing great leadership and career progression for our people.	We expect technology and automation to increasingly change the skills required for our workforce, and the pace of change will accelerate the required reskilling of existing workforces and recruitment of new talent. Aviva is returning to 2019 (pre-pandemic) volumes of voluntary attrition, however in recent months rates have moved slightly above 2019 which could be attributed to pent up 'demand' from 2020 where leaver volumes significantly reduced. We anticipate the impact from any pent up "demand" to have a short term effect and aligned People teams will support leadership teams with interventions where required. Recruitment and retention will become more challenging as the relative size of the working age population declines, education systems fail to produce future generations with the right skills in sufficient numbers and immigration controls restrict the talent pool. Expectations of the next generation of employees (i.e. Generation Z) will require us to change how we operate if we are to retain talent.
Pandemic – in an increasingly globalised world, new or mutations of existing bacteria or viruses may be difficult for stretched healthcare systems to contain, disrupting national economies and affecting our operations and the health and mortality of our customers. Trend: Stable Risk impacted: Life Insurance risk (mortality, longevity, morbidity), General Insurance (business interruption, travel) and Operational risk.	We have contingency plans which are designed to reduce as far as possible the impact on operational service arising from mass staff absenteeism, travel restrictions and supply chain disruption caused by a pandemic, which we were able to put into action during the current COVID-19 pandemic. We reinsure much of the mortality risk arising from our Life Protection business and hold capital to cover the risks of a 1-in-200 year pandemic event. We model a range of extreme pandemic scenarios including a repeat of the 1918 global influenza pandemic and COVID-19. In the Group and commercial insurance business we manage our potential exposure through our policy wordings. As an investment manager and investor, we engage with companies to ensure the responsible use of antibiotics to reduce the risk that antimicrobial resistance negates the efficacy of medical treatment.	There remains uncertainty around the outlook for the COVID-19 Omicron variant. The long-term impact on mortality and morbidity is dependent on the extent natural immunity develops in the general population, the efficacy of new healthcare treatments and possible future strains that may emerge. Trends such as global climate change, urbanisation, antimicrobial resistance and intensive livestock production are likely to increase the risk of future pandemics, while reductions in migration and international travel as a result of COVID-19 are likely to be temporary making the containment of future pandemics more challenging. We expect the experience and learnings from the current COVID-19 will improve the effectiveness of the public healthcare response to any future pandemics.

Information extracted from the Strategic Report of the 2021 Aviva plc Annual Report and Accounts and therefore is not subject to external audit

B9 – Cash and cash equivalents

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

	2021 £m	2020 £m
Cash at bank and in hand	**4,833**	6,495
Cash equivalents	**7,652**	10,595
	12,485	17,090
Bank overdrafts	**(607)**	(908)
	11,878	16,182

Cash and cash equivalents reconciles to the statement of financial position as follows:

	2021 £m	2020 £m
Cash and cash equivalents (excluding bank overdrafts)	**12,485**	17,090
Less: Assets classified as held for sale	**—**	(190)
	12,485	16,900

B10 – Subsequent events

On 1 March 2022, Aviva plc approved a proposed capital return of £3.75 billion to the holders of its ordinary shares by way of a B share scheme, subject to approval at a general meeting of the Shareholders which is expected to be held on 9 May 2022 and customary conditions including no material deterioration in market conditions or the financial position of the Company[1]. The B share scheme involves the bonus issue of new B shares to holders of ordinary shares at the record time which the Company will subsequently redeem for cash. To maintain comparability between the market price for Aviva ordinary shares before and after implementation of the B share scheme, it is proposed that the B share scheme will be accompanied by a share consolidation. Full details of the B share scheme and the share consolidation will be set out in the circular which the Company expects to publish on or about 4 April 2022. The proposed capital return will reduce IFRS net asset value and Solvency II own funds by £3.75 billion.

For details of subsequent events relating to acquisitions see note B4(f).

1 There are important notices relating to the B Share Scheme set out in the Other section of the News Release within this Results Announcement. Please read those notices in full in order to obtain a comprehensive understanding of the Company's proposals.

Directors' responsibility statement

The responsibility statement below has been prepared in connection with Aviva's full Annual Report and Accounts for the year ended 31 December 2021. The directors' confirm that, to the best of their knowledge:

- Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the Group and parent company financial statements in accordance with UK-adopted international accounting standards; and
- The Strategic report and the Directors' and Corporate Governance report in the Annual report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principle risks and uncertainties that it faces.

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

1 March 2022

Jason Windsor
Group Chief Financial Officer

1 March 2022

Analysis of assets

In this section **Page**

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.

C1 – Summary of total assets by fund

(a) Group assets by fund

2021	Policyholder assets £m	Participating fund assets £m	Shareholder assets £m	Total £m
Goodwill and acquired value of in-force business and intangible assets	—	—	3,691	3,691
Interests in joint ventures and associates	240	717	1,016	1,973
Property and equipment	—	67	361	428
Investment property	4,650	1,941	412	7,003
Loans	1,777	3,383	33,464	38,624
Financial investments				
Debt securities	42,407	27,105	63,739	133,251
Equity securities	85,186	8,808	1,175	95,169
Other investments	28,521	4,943	3,077	36,541
Reinsurance assets	5,132	336	9,564	15,032
Deferred tax assets	—	—	138	138
Current tax assets	—	—	170	170
Receivables and other financial assets	589	763	4,736	6,088
Deferred acquisition costs and other assets	26	1,044	4,420	5,490
Prepayments and accrued income	507	536	1,348	2,391
Cash and cash equivalents	5,474	1,349	5,662	12,485
Total	**174,509**	**50,992**	**132,973**	**358,474**
Total %	**48.7 %**	**14.2 %**	**37.1 %**	**100.0 %**
2020 Total	187,985	149,932	141,940	479,857
2020 Total %	39.2 %	31.2 %	29.6 %	100.0 %

(b) Assets under management by fund

2021	Policyholder assets £m	Participating fund assets £m	Shareholder assets £m	External funds £m	Total £m
Assets managed on behalf of the Group's subsidiaries					
Investment property	4,650	1,941	412	—	7,003
Loans	1,777	3,383	33,464	—	38,624
Debt securities	42,407	27,105	63,739	—	133,251
Equity securities	85,186	8,808	1,175	—	95,169
Other investments	28,521	4,943	3,077	—	36,541
Cash and cash equivalents	5,474	1,349	5,662	—	12,485
Other	5,372	662	158	—	6,192
	173,387	48,191	107,687	—	329,265
Assets managed on behalf of third parties[1]					
Aviva Investors	—	—	—	51,332	51,332
UK Platform[2]	—	—	—	43,101	43,101
Other	—	—	—	544	544
Less: third-party funds and UK Platform included in assets managed on behalf of Group's subsidiaries	—	—	—	(22,836)	(22,836)
	—	—	—	72,141	72,141
Total	**173,387**	**48,191**	**107,687**	**72,141**	**401,406**
Total %	**43.2 %**	**12.0 %**	**26.8 %**	**18.0 %**	**100.0 %**
2020 Total	187,079	145,415	113,130	89,066	534,690
2020 Total %	35.0 %	27.2 %	21.2 %	16.6 %	100.0 %

1 AUM managed on behalf of third parties cannot be directly reconciled to the financial statements.
2 UK Platform relates to the assets under management in the UK Savings & Retirement business.

C2 – Summary of total assets by valuation bases

Total assets 2021	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	—	3,691	—	3,691
Interests in joint ventures and associates	—	—	1,973	1,973
Property and equipment	82	346	—	428
Investment property	7,003	—	—	7,003
Loans	29,980	8,644	—	38,624
Financial investments				
Debt securities	133,251	—	—	133,251
Equity securities	95,169	—	—	95,169
Other investments	36,541	—	—	36,541
Reinsurance assets	5,132	9,900	—	15,032
Deferred tax assets	—	—	138	138
Current tax assets	—	—	170	170
Receivables and other financial assets	—	6,088	—	6,088
Deferred acquisition costs and other assets	—	5,490	—	5,490
Prepayments and accrued income	—	2,391	—	2,391
Cash and cash equivalents	12,485	—	—	12,485
Total	**319,643**	**36,550**	**2,281**	**358,474**
Total %	**89.2 %**	**10.2 %**	**0.6 %**	**100.0 %**
2020 Total	430,845	46,736	2,276	479,857
2020 Total %	89.8 %	9.7 %	0.5 %	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 assets 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.

Policyholder assets 2021	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	—	—	—	—
Interests in joint ventures and associates	—	—	240	240
Property and equipment	—	—	—	—
Investment property	4,650	—	—	4,650
Loans	—	1,777	—	1,777
Financial investments				
Debt securities	42,407	—	—	42,407
Equity securities	85,186	—	—	85,186
Other investments	28,521	—	—	28,521
Reinsurance assets	5,132	—	—	5,132
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	589	—	589
Deferred acquisition costs and other assets	—	26	—	26
Prepayments and accrued income	—	507	—	507
Cash and cash equivalents	5,474	—	—	5,474
Total	**171,370**	**2,899**	**240**	**174,509**
Total %	**98.2 %**	**1.7 %**	**0.1 %**	**100.0 %**
2020 Total	184,580	3,259	146	187,985
2020 Total %	98.2 %	1.7 %	0.1 %	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 assets 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.

Participating fund assets 2021	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	—	—	—	—
Interests in joint ventures and associates	—	—	717	717
Property and equipment	67	—	—	67
Investment property	1,941	—	—	1,941
Loans	147	3,236	—	3,383
Financial investments				
Debt securities	27,105	—	—	27,105
Equity securities	8,808	—	—	8,808
Other investments	4,943	—	—	4,943
Reinsurance assets	—	336	—	336
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	763	—	763
Deferred acquisition costs and other assets	—	1,044	—	1,044
Prepayments and accrued income	—	536	—	536
Cash and cash equivalents	1,349	—	—	1,349
Total	**44,360**	**5,915**	**717**	**50,992**
Total %	**87.0 %**	**11.6 %**	**1.4 %**	**100.0 %**
2020 Total	138,745	10,368	819	149,932
2020 Total %	92.6 %	6.9 %	0.5 %	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 assets 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.

Shareholder assets 2021	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	—	3,691	—	3,691
Interests in joint ventures and associates	—	—	1,016	1,016
Property and equipment	15	346	—	361
Investment property	412	—	—	412
Loans	29,833	3,631	—	33,464
Financial investments				
Debt securities	63,739	—	—	63,739
Equity securities	1,175	—	—	1,175
Other investments	3,077	—	—	3,077
Reinsurance assets	—	9,564	—	9,564
Deferred tax assets	—	—	138	138
Current tax assets	—	—	170	170
Receivables and other financial assets	—	4,736	—	4,736
Deferred acquisition costs and other assets	—	4,420	—	4,420
Prepayments and accrued income	—	1,348	—	1,348
Cash and cash equivalents	5,662	—	—	5,662
Total	**103,913**	**27,736**	**1,324**	**132,973**
Total %	**78.1 %**	**20.9 %**	**1.0 %**	**100.0 %**
2020 Total	107,520	33,109	1,311	141,940
2020 Total %	75.8 %	23.3 %	0.9 %	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 assets 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 31 December 2021 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				
2021	General insurance & health & other[1] £m	Annuity and non-profit £m	Total shareholder assets £m	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	**9,072**	**20,365**	**29,437**	**17,050**	**11,398**	**—**	**57,885**	**—**	**57,885**
Corporate bonds	**3,801**	**20,333**	**24,134**	**18,065**	**10,250**	**—**	**52,449**	**—**	**52,449**
Other	**6,081**	**4,087**	**10,168**	**7,292**	**5,457**	**—**	**22,917**	**—**	**22,917**
	18,954	**44,785**	**63,739**	**42,407**	**27,105**	**—**	**133,251**	**—**	**133,251**
Loans (note C5)									
Mortgage loans	**—**	**21,663**	**21,663**	**—**	**21**	**—**	**21,684**	**—**	**21,684**
Other loans	**2,610**	**9,191**	**11,801**	**1,777**	**3,362**	**—**	**16,940**	**—**	**16,940**
	2,610	**30,854**	**33,464**	**1,777**	**3,383**	**—**	**38,624**	**—**	**38,624**
Equity securities (note C6)	**966**	**209**	**1,175**	**85,186**	**8,808**	**—**	**95,169**	**—**	**95,169**
Investment property (note C7)	**271**	**141**	**412**	**4,650**	**1,941**	**—**	**7,003**	**—**	**7,003**
Other investments (note C8)	**991**	**2,086**	**3,077**	**28,521**	**4,943**	**—**	**36,541**	**—**	**36,541**
Total	**23,792**	**78,075**	**101,867**	**162,541**	**46,180**	**—**	**310,588**	**—**	**310,588**
2020 Total	20,600	85,423	106,023	176,500	49,864	90,946	423,333	(16,907)	406,426

1 Of the £23,792 million of assets 57% relates to other shareholder business assets.

C4 – Analysis of debt securities

C4.1 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.
- 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.

	Fair value hierarchy			
Debt securities - Total 2021	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK government	**29,742**	**2,416**	**583**	**32,741**
Non-UK government	**4,778**	**17,893**	**2,473**	**25,144**
Europe	**1,714**	**6,466**	**1,554**	**9,734**
North America	**3,064**	**3,968**	**537**	**7,569**
Asia Pacific & Other	**—**	**7,459**	**382**	**7,841**
Corporate bonds - public utilities	**—**	**5,562**	**2,001**	**7,563**
Other corporate bonds	**—**	**41,961**	**2,925**	**44,886**
Other	**—**	**22,422**	**495**	**22,917**
Total	**34,520**	**90,254**	**8,477**	**133,251**
Total %	**25.9 %**	**67.7 %**	**6.4 %**	**100.0 %**
2020 Total	60,580	136,034	19,540	216,154
2020 Total %	28.1 %	62.9 %	9.0 %	100.0 %

	Fair value hierarchy			
Debt securities - Policyholder assets 2021	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK government	**8,843**	**—**	**—**	**8,843**
Non-UK government	**2,680**	**5,526**	**1**	**8,207**
Europe	**871**	**1,633**	**—**	**2,504**
North America	**1,809**	**130**	**1**	**1,940**
Asia Pacific & Other	**—**	**3,763**	**—**	**3,763**
Corporate bonds - public utilities	**—**	**1,575**	**—**	**1,575**
Other corporate bonds	**—**	**16,450**	**40**	**16,490**
Other	**—**	**7,292**	**—**	**7,292**
Total	**11,523**	**30,843**	**41**	**42,407**
Total %	**27.2 %**	**72.7 %**	**0.1 %**	**100.0 %**
2020 Total	13,713	32,045	23	45,781
2020 Total %	30.0 %	69.9 %	0.1 %	100.0 %

Debt securities - Participating fund assets 2021	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK government	**4,932**	**844**	**198**	**5,974**
Non-UK government	**964**	**4,271**	**189**	**5,424**
Europe	**531**	**1,468**	**100**	**2,099**
North America	**433**	**33**	**—**	**466**
Asia Pacific & Other	**—**	**2,770**	**89**	**2,859**
Corporate bonds - public utilities	**—**	**752**	**115**	**867**
Other corporate bonds	**—**	**9,226**	**157**	**9,383**
Other	**—**	**5,205**	**252**	**5,457**
Total	**5,896**	**20,298**	**911**	**27,105**
Total %	**21.7 %**	**74.9 %**	**3.4 %**	**100.0 %**
2020 Total	32,218	63,019	10,440	105,677
2020 Total %	30.5 %	59.6 %	9.9 %	100.0 %

Debt securities - Shareholder assets 2021	Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK government	**15,967**	**1,572**	**385**	**17,924**
Non-UK government	**1,134**	**8,096**	**2,283**	**11,513**
Europe	**312**	**3,365**	**1,454**	**5,131**
North America	**822**	**3,805**	**536**	**5,163**
Asia Pacific & Other	**—**	**926**	**293**	**1,219**
Corporate bonds - public utilities	**—**	**3,235**	**1,886**	**5,121**
Other corporate bonds	**—**	**16,285**	**2,728**	**19,013**
Other	**—**	**9,925**	**243**	**10,168**
Total	**17,101**	**39,113**	**7,525**	**63,739**
Total %	**26.8 %**	**61.4 %**	**11.8 %**	**100.0 %**
2020 Total	14,649	40,970	9,077	64,696
2020 Total %	22.7 %	63.3 %	14.0 %	100.0 %

C4.2 External ratings

Debt securities - Total 2021	External ratings AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	Total £m
Government							
UK government	**—**	**31,986**	**237**	**—**	**—**	**324**	**32,547**
UK local authorities	**—**	**—**	**139**	**—**	**—**	**55**	**194**
Non-UK government	**10,526**	**5,294**	**5,331**	**1,593**	**1,196**	**1,204**	**25,144**
	10,526	**37,280**	**5,707**	**1,593**	**1,196**	**1,583**	**57,885**
Corporate							
Public utilities	**—**	**272**	**2,346**	**3,190**	**132**	**1,623**	**7,563**
Other corporate bonds	**5,961**	**7,320**	**13,958**	**10,866**	**3,482**	**3,299**	**44,886**
	5,961	**7,592**	**16,304**	**14,056**	**3,614**	**4,922**	**52,449**
Certificates of deposit	**150**	**12,107**	**6,803**	**5**	**—**	**737**	**19,802**
Structured							
Residential mortgage backed security non-agency prime	**2**	**1**	**91**	**120**	**—**	**—**	**214**
	2	**1**	**91**	**120**	**—**	**—**	**214**
Commercial mortgage backed security	**630**	**102**	**185**	**52**	**—**	**30**	**999**
Asset backed security	**337**	**409**	**83**	**198**	**50**	**65**	**1,142**
Collateralised debt obligation (including collateralised loan obligation)	**249**	**—**	**—**	**—**	**—**	**—**	**249**
	1,216	**511**	**268**	**250**	**50**	**95**	**2,390**
Wrapped credit	**—**	**20**	**388**	**87**	**5**	**11**	**511**
Total	**17,855**	**57,511**	**29,561**	**16,111**	**4,865**	**7,348**	**133,251**
Total %	**13.3 %**	**43.2 %**	**22.2 %**	**12.1 %**	**3.7 %**	**5.5 %**	**100.0 %**
2020 Total	20,977	73,497	46,207	50,170	15,796	9,507	216,154
2020 Total %	9.7 %	34.0 %	21.4 %	23.2 %	7.3 %	4.4 %	100.0 %

Debt securities - Policyholders assets 2021	External ratings AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	Total £m
Government							
UK government	**—**	**8,824**	**16**	**—**	**—**	**3**	**8,843**
UK local authorities	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Non-UK government	**3,116**	**746**	**2,332**	**1,139**	**867**	**7**	**8,207**
	3,116	**9,570**	**2,348**	**1,139**	**867**	**10**	**17,050**
Corporate							
Public utilities	**—**	**47**	**719**	**753**	**56**	**—**	**1,575**
Other corporate bonds	**1,572**	**2,467**	**4,652**	**4,417**	**2,476**	**906**	**16,490**
	1,572	**2,514**	**5,371**	**5,170**	**2,532**	**906**	**18,065**
Certificates of deposit	**38**	**3,827**	**2,364**	**5**	**—**	**564**	**6,798**
Structured							
Residential mortgage backed security non-agency prime	**—**	**1**	**3**	**78**	**—**	**—**	**82**
	—	**1**	**3**	**78**	**—**	**—**	**82**
Commercial mortgage backed security	**139**	**36**	**19**	**2**	**—**	**1**	**197**
Asset backed security	**86**	**67**	**25**	**6**	**6**	**9**	**199**
Collateralised debt obligation (including collateralised loan obligation)	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	225	**103**	**44**	**8**	**6**	**10**	**396**
Wrapped credit	**—**	**8**	**7**	**1**	**—**	**—**	**16**
Total	**4,951**	**16,023**	**10,137**	**6,401**	**3,405**	**1,490**	**42,407**
Total %	**11.7 %**	**37.8 %**	**23.9 %**	**15.1 %**	**8.0 %**	**3.5 %**	**100.0 %**
2020 Total	3,342	14,452	10,549	8,526	6,845	2,067	45,781
2020 Total %	7.3 %	31.6 %	23.0 %	18.6 %	15.0 %	4.5 %	100.0 %

Debt securities - Participating fund assets 2021	AAA £m	AA £m	A £m	BBB £m	External ratings Less than BBB £m	Non-rated £m	Total £m
Government							
UK government	—	5,734	2	—	—	231	5,967
UK local authorities	—	—	7	—	—	—	7
Non-UK government	1,185	1,321	1,989	378	324	227	5,424
	1,185	7,055	1,998	378	324	458	11,398
Corporate							
Public utilities	—	111	249	316	76	115	867
Other corporate bonds	2,107	1,378	1,961	2,630	945	362	9,383
	2,107	1,489	2,210	2,946	1,021	477	10,250
Certificates of deposit	39	2,983	1,575	—	—	96	4,693
Structured							
Residential mortgage backed security non-agency prime	1	—	9	41	—	—	51
	1	—	9	41	—	—	51
Commercial mortgage backed security	142	10	22	—	—	11	185
Asset backed security	88	54	30	57	20	9	258
Collateralised debt obligation (including collateralised loan obligation)	249	—	—	—	—	—	249
	479	64	52	57	20	20	692
Wrapped credit	—	1	19	—	—	1	21
Total	**3,811**	**11,592**	**5,863**	**3,422**	**1,365**	**1,052**	**27,105**
Total %	**14.1 %**	**42.8 %**	**21.6 %**	**12.6 %**	**5.0 %**	**3.9 %**	**100.0 %**
2020 Total	8,585	33,295	19,703	33,204	8,521	2,369	105,677
2020 Total %	8.2 %	31.5 %	18.6 %	31.4 %	8.1 %	2.2 %	100.0 %

Debt securities - Shareholder assets 2021	AAA £m	AA £m	A £m	BBB £m	External ratings Less than BBB £m	Non-rated £m	Total £m
Government							
UK government	—	17,428	219	—	—	90	17,737
UK local authorities	—	—	132	—	—	55	187
Non-UK government	6,225	3,227	1,010	76	5	970	11,513
	6,225	20,655	1,361	76	5	1,115	29,437
Corporate							
Public utilities	—	114	1,378	2,121	—	1,508	5,121
Other corporate bonds	2,282	3,475	7,345	3,819	61	2,031	19,013
	2,282	3,589	8,723	5,940	61	3,539	24,134
Certificates of deposit	73	5,297	2,864	—	—	77	8,311
Structured							
Residential mortgage backed security non-agency prime	1	—	79	1	—	—	81
	1	—	79	1	—	—	81
Commercial mortgage backed security	349	56	144	50	—	18	617
Asset backed security	163	288	28	135	24	47	685
Collateralised debt obligation (including collateralised loan obligation)	—	—	—	—	—	—	—
	512	344	172	185	24	65	1,302
Wrapped credit	—	11	362	86	5	10	474
Total	**9,093**	**29,896**	**13,561**	**6,288**	**95**	**4,806**	**63,739**
Total %	**14.3 %**	**46.9 %**	**21.3 %**	**9.9 %**	**0.1 %**	**7.5 %**	**100.0 %**
2020 Total	9,050	25,750	15,955	8,440	430	5,071	64,696
2020 Total %	14.0 %	39.8 %	24.7 %	13.0 %	0.7 %	7.8 %	100.0 %

Within shareholder assets debt securities, 46.2% of exposure is in government holdings (2020: 43.8%). Our corporate debt securities portfolio represents 37.9% of total shareholder debt securities (2020: 41.9%). At 31 December 2021, the proportion of our shareholder debt securities that are investment grade is 92.4% (2020: 91.5%). The remaining 7.6% of shareholder debt securities that do not have an external rating of BBB or higher can be split as follows:

- 0.1% are debt securities that are rated as below investment grade; and
- 7.5% are not rated by the major rating agencies.

The majority of non-rated corporate bonds are held by our businesses in the UK. Of the securities not rated by an external rating agency most are allocated an internal rating using a methodology largely consistent with that adopted by an external rating agency, and are considered to be of investment grade credit quality; these include £3.5 billion (2020: £3.3 billion) of debt securities held in our UK Life business, predominantly made up of private placements and other corporate bonds, which have been internally rated as investment grade.

C5 – Analysis of loans

(a) Overview

The Group's loan portfolio of £38,624 million (2020: £43,679 million) is principally made up of the following:

- Policy loans of £14 million (2020: £637 million), which are generally collateralised by a lien or charge over the underlying policy;
- Loans and advances to banks of £8,297 million (2020: £12,330 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 £21,684 million (2020: £22,073 million); and
- Healthcare, infrastructure and private financial initiative (PFI) loans of £7,994 million (2020: £7,283 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, 56.1% (2020: 50.5%) 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 £7,994 million (2020: £7,283 million). These loans are secured against the income from healthcare and education premises and as such are not considered further in this section.

An analysis of the shareholder loans is set out below.

Loans - Shareholder assets 31 December 2021	United Kingdom £m	Canada £m	Europe £m	Total £m
Policy loans	**2**	**—**	**—**	**2**
Loans and advances to banks	**3,674**	**—**	**—**	**3,674**
Healthcare, Infrastructure and PFI other loans	**7,665**	**—**	**204**	**7,869**
Mortgage loans	**21,663**	**—**	**—**	**21,663**
Other loans	**152**	**104**	**—**	**256**
Total	**33,156**	**104**	**204**	**33,464**
Total %	**99.1 %**	**0.3 %**	**0.6 %**	**100.0 %**
2020 Total	34,554	132	238	34,924
2020 Total %	98.9 %	0.4 %	0.7 %	100.0 %

(b) Analysis of shareholder mortgage loans

Mortgage loans included within shareholder assets are £21,663 million (2020: £22,034 million) and are held in the UK. The narrative below focuses on explaining the risks arising as a result of these exposures.

31 December 2021	Total £m
Non-securitised mortgage loans	
– Residential (Equity release)	**9,699**
– Commercial	**7,225**
– Healthcare, Infrastructure and PFI mortgage loans	**2,508**
	19,432
Securitised mortgage loans	**2,231**
Total	**21,663**
2020 Total	22,034

Non-securitised mortgage loans

Residential

The UK non-securitised residential mortgage portfolio has a total value as at 31 December 2021 of £9,699 million (2020: £9,360 million). The movement in the year is due to £712 million of new lending offset by a decrease in the fair value of £109 million. Additional accrued interest in the year is offset against 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 27.5% (2020: 28.2%).

Commercial

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

31 December 2021	>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	**31**	**—**	**—**	**—**	**—**	**325**	**—**	**37**	**657**	**6,175**	**7,225**
Total	**31**	**—**	**—**	**—**	**—**	**325**	**—**	**37**	**657**	**6,175**	**7,225**

All of the £7,225 million (2020: £7,479 million) of mortgage loans within shareholder assets 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 ratios, a key indicator of mortgage portfolio performance, reduced to 2.31x (2020: 2.37x). 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 to 2.65x (2020: 2.74x). Average mortgage LTV decreased from 61.0% in 2020 to 56.0%. As at 31 December 2021, there were no loans with balances in arrears (2020: loans with a value of £34 million had a balance in arrears of £1 million).

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. £17,252 million of shareholder loan assets are backing annuity liabilities and comprise of commercial mortgage loans (£7,225 million), Healthcare, Infrastructure and PFI mortgage loans (£2,508 million) and Healthcare, Infrastructure and PFI other loans (£7,519 million).

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 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 cover falls below 1.0x and the borrower defaults then Aviva retains the option of selling the security or restructuring the loans and benefitting 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. The Group continues to actively manage this position.

Healthcare, Infrastructure and PFI

Healthcare, Infrastructure and PFI mortgage loans included within shareholder assets of £2,508 million (2020: £2,804 million) are secured against healthcare 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 68.3% (2020: 73.7%), 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. The Group therefore consider these loans to be lower risk relative to other mortgage loans.

Securitised mortgage loans

As at 31 December 2021, the Group has £2,231 million (2020: £2,391 million) of securitised mortgage loans within shareholder assets. Funding for the securitised residential mortgage assets was obtained by issuing loan note securities. Of these loan notes approximately £213 million (2020: £230 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 49.5% (2020: 49.6%).

Valuation allowance

The Group carries a valuation allowance 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 (2020: £1.4 billion) over the remaining term of the portfolio at 31 December 2021. The total valuation allowance in respect of mortgages, including healthcare mortgages but excluding equity release, was £0.5 billion at 31 December 2021 (2020: £0.6 billion). The total valuation allowance in respect of equity release mortgages was £1.2 billion at 31 December 2021 (2020: £1.7 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 44 bps, 30 bps, and 91 bps respectively at 31 December 2021 (2020: 46 bps, 35 bps and 118 bps respectively).

C6 – Analysis of equity securities

Equity securities - Total	2021 Level 1 £m	2021 Level 2 £m	2021 Level 3 £m	2021 Total £m	2020 Level 1 £m	2020 Level 2 £m	2020 Level 3 £m	2020 Total £m
Public utilities	3,240	—	—	3,240	3,099	—	—	3,099
Banks, trusts and insurance companies	17,221	—	159	17,380	17,695	—	140	17,835
Industrial miscellaneous and all other	74,139	—	191	74,330	79,044	—	275	79,319
Non-redeemable preferred shares	219	—	—	219	251	—	—	251
Total	94,819	—	350	95,169	100,089	—	415	100,504
Total %	99.6 %	—	0.4 %	100.0 %	99.6 %	—	0.4 %	100.0 %
Less: Assets classified as held for sale	—	—	—	—	(92)	—	(8)	(100)
Total (excluding assets classified as held for sale)	94,819	—	350	95,169	99,997	—	407	100,404
Total % (excluding assets classified as held for sale)	99.6 %	—	0.4 %	100.0 %	99.6 %	—	0.4 %	100.0 %

Equity securities - Policyholder assets	2021 Level 1 £m	2021 Level 2 £m	2021 Level 3 £m	2021 Total £m	2020 Level 1 £m	2020 Level 2 £m	2020 Level 3 £m	2020 Total £m
Public utilities	2,925	—	—	2,925	2,782	—	—	2,782
Banks, trusts and insurance companies	15,577	—	5	15,582	15,409	—	—	15,409
Industrial miscellaneous and all other	66,616	—	9	66,625	68,710	—	4	68,714
Non-redeemable preferred shares	54	—	—	54	52	—	—	52
Total	85,172	—	14	85,186	86,953	—	4	86,957
Total %	100.0 %	—	—	100.0 %	100.0 %	—	—	100.0 %
Less: Assets classified as held for sale	—	—	—	—	(43)	—	—	(43)
Total (excluding assets classified as held for sale)	85,172	—	14	85,186	86,910	—	4	86,914
Total % (excluding assets classified as held for sale)	100.0 %	—	—	100.0 %	100.0 %	—	—	100.0 %

Equity securities - Participating fund assets	2021 Level 1 £m	2021 Level 2 £m	2021 Level 3 £m	2021 Total £m	2020 Level 1 £m	2020 Level 2 £m	2020 Level 3 £m	2020 Total £m
Public utilities	308	—	—	308	307	—	—	307
Banks, trusts and insurance companies	1,601	—	—	1,601	2,205	—	39	2,244
Industrial miscellaneous and all other	6,715	—	181	6,896	10,019	—	253	10,272
Non-redeemable preferred shares	3	—	—	3	4	—	—	4
Total	8,627	—	181	8,808	12,535	—	292	12,827
Total %	97.9 %	—	2.1 %	100.0 %	97.7 %	—	2.3 %	100.0 %
Less: Assets classified as held for sale	—	—	—	—	(49)	—	(8)	(57)
Total (excluding assets classified as held for sale)	8,627	—	181	8,808	12,486	—	284	12,770
Total % (excluding assets classified as held for sale)	97.9 %	—	2.1 %	100.0 %	97.8 %	—	2.2 %	100.0 %

Equity securities - Shareholder assets	2021 Level 1 £m	2021 Level 2 £m	2021 Level 3 £m	2021 Total £m	2020 Level 1 £m	2020 Level 2 £m	2020 Level 3 £m	2020 Total £m
Public utilities	7	—	—	7	10	—	—	10
Banks, trusts and insurance companies	43	—	154	197	81	—	101	182
Industrial miscellaneous and all other	808	—	1	809	315	—	18	333
Non-redeemable preference shares	162	—	—	162	195	—	—	195
Total	1,020	—	155	1,175	601	—	119	720
Total %	86.8 %	—	13.2 %	100.0 %	83.5 %	—	16.5 %	100.0 %
Less: Assets classified as held for sale	—	—	—	—	—	—	—	—
Total (excluding assets classified as held for sale)	1,020	—	155	1,175	601	—	119	720
Total % (excluding assets classified as held for sale)	86.8 %	—	13.2 %	100.0 %	83.5 %	—	16.5 %	100.0 %

C7 – Analysis of investment property

The Group's total investment property value is £7,003 million (2020: £11,369 million).

Within total investment properties by value, 94.1% (2020: 94.4%) are held in policyholder or participating fund assets. Shareholder exposure to investment properties is principally through investments in UK commercial property.

Investment properties are stated at their market values as assessed by qualified external independent valuers. The properties are valued on an income basis 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. Tenant risk arising as a result of COVID-19 has reduced during 2021, leading to a corresponding reduction in capital deductions applied to valuations of properties in the retail and leisure sectors. The uplift and discount rates are derived from rates implied by recent market transactions on similar property. These inputs are deemed unobservable.

Within total investment properties by value, 95.8% (2020: 97.6%) are leased to third parties under operating leases, with the remainder either being vacant or held for capital appreciation.

Within shareholder investment properties by value, 100% (2020: 100%) are leased to third parties under operating leases.

C8 – Analysis of other financial investments

				2021				2020
	Fair value hierarchy				Fair value hierarchy			
Other investments - Total	**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	**28,758**	**842**	**780**	**30,380**	33,978	970	2,997	37,945
Derivative financial instruments	**200**	**5,126**	**408**	**5,734**	248	8,943	531	9,722
Deposits with credit institutions	**84**	**—**	**—**	**84**	157	54	—	211
Minority holdings in property management undertakings	**—**	**—**	**246**	**246**	—	78	3,569	3,647
Other	**1**	**—**	**96**	**97**	2	—	100	102
Total	**29,043**	**5,968**	**1,530**	**36,541**	34,385	10,045	7,197	51,627
Total %	**79.5 %**	**16.3 %**	**4.2 %**	**100.0 %**	66.6 %	19.5 %	13.9 %	100.0 %
Less: Assets classified as held for sale	**—**	**—**	**—**	**—**	(2,904)	(48)	(538)	(3,490)
Total (excluding assets classified as held for sale)	**29,043**	**5,968**	**1,530**	**36,541**	31,481	9,997	6,659	48,137
Total % (excluding assets classified as held for sale)	**79.5 %**	**16.3 %**	**4.2 %**	**100.0 %**	65.4 %	20.8 %	13.8 %	100.0 %

				2021				2020
	Fair value hierarchy				Fair value hierarchy			
Other investments - Policyholder assets	**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	**27,308**	**657**	**2**	**27,967**	31,681	684	3	32,368
Derivative financial instruments	**44**	**424**	**—**	**468**	21	1,014	—	1,035
Deposits with credit institutions	**84**	**—**	**—**	**84**	137	54	—	191
Minority holdings in property management undertakings	**—**	**—**	**2**	**2**	—	—	983	983
Other	**—**	**—**	**—**	**—**	—	—	—	—
Total	**27,436**	**1,081**	**4**	**28,521**	31,839	1,752	986	34,577
Total %	**96.2 %**	**3.8 %**	**—**	**100.0 %**	92.0 %	5.1 %	2.9 %	100.0 %
Less: Assets classified as held for sale	**—**	**—**	**—**	**—**	(2,757)	—	—	(2,757)
Total (excluding assets classified as held for sale)	**27,436**	**1,081**	**4**	**28,521**	29,082	1,752	986	31,820
Total % (excluding assets classified as held for sale)	**96.2 %**	**3.8 %**	**—**	**100.0 %**	91.4 %	5.5 %	3.1 %	100.0 %

Other investments - Participating fund assets	2021 Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	2021 Total £m	2020 Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	2020 Total £m
Unit trusts and other investment vehicles	**1,363**	**25**	**503**	**1,891**	1,866	82	2,710	4,658
Derivative financial instruments	**156**	**2,749**	**31**	**2,936**	173	4,713	53	4,939
Deposits with credit institutions	—	—	—	—	20	—	—	20
Minority holdings in property management undertakings	—	—	**116**	**116**	—	30	2,362	2,392
Other	—	—	—	—	—	—	—	—
Total	**1,519**	**2,774**	**650**	**4,943**	2,059	4,825	5,125	12,009
Total %	**30.7 %**	**56.2 %**	**13.1 %**	**100.0 %**	17.1 %	40.2 %	42.7 %	100.0 %
Less: Assets classified as held for sale	—	—	—	—	(147)	(48)	(538)	(733)
Total (excluding assets classified as held for sale)	**1,519**	**2,774**	**650**	**4,943**	1,912	4,777	4,587	11,276
Total % (excluding assets classified as held for sale)	**30.7 %**	**56.2 %**	**13.1 %**	**100.0 %**	17.0 %	42.3 %	40.7 %	100.0 %

Other investments - Shareholder assets	2021 Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	2021 Total £m	2020 Fair value hierarchy Level 1 £m	Level 2 £m	Level 3 £m	2020 Total £m
Unit trusts and other investment vehicles	**87**	**160**	**275**	**522**	431	204	284	919
Derivative financial instruments	—	**1,953**	**377**	**2,330**	54	3,216	478	3,748
Deposits with credit institutions	—	—	—	—	—	—	—	—
Minority holdings in property management undertakings	—	—	**128**	**128**	—	48	224	272
Other	**1**	—	**96**	**97**	2	—	100	102
Total	**88**	**2,113**	**876**	**3,077**	487	3,468	1,086	5,041
Total %	**2.8 %**	**68.7 %**	**28.5 %**	**100.0 %**	9.7 %	68.8 %	21.5 %	100.0 %
Less: Assets classified as held for sale	—	—	—	—	—	—	—	—
Total (excluding assets classified as held for sale)	**88**	**2,113**	**876**	**3,077**	487	3,468	1,086	5,041
Total % (excluding assets classified as held for sale)	**2.8 %**	**68.7 %**	**28.5 %**	**100.0 %**	9.7 %	68.8 %	21.5 %	100.0 %

C9 – Analysis of available for sale investments

There were no impairment expenses during 2021 relating to available for sale (AFS) debt securities and other investments.

Total unrealised losses on AFS debt securities at 31 December 2021 were £nil (2020: £1 million). There were no other unrealised losses on AFS investments.

Following the disposal of the Group's French and Polish businesses the Group no longer holds any available for sale investments.

C10 – Reinsurance assets

The Group assumes and cedes reinsurance in the normal course of business, with retention limits varying by line of business. Reinsurance assets primarily include balances due from both insurance and reinsurance companies for ceded insurance liabilities. Amounts recoverable from reinsurers are estimated in a manner consistent with the outstanding claims provisions or settled claims associated with the reinsured policies and in accordance with the relevant reinsurance contract.

If a reinsurance asset is impaired, the Group reduces the carrying amount accordingly and recognises that impairment loss in the income statement. A reinsurance asset is impaired if there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that the Group may not receive all amounts due to it under the terms of the contract, and the event has a reliably measurable impact on the amounts that the Group will receive from the reinsurer.

For the table below, reinsurance asset credit ratings are stated in accordance with information from leading rating agencies.

2021	Ratings AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Not rated £m	Total £m
Policyholder assets	—	**3,219**	**280**	**547**	—	—	**4,046**
Participating fund assets	—	**100**	**260**	—	—	**23**	**383**
Shareholder assets	—	**8,211**	**2,294**	**27**	—	**71**	**10,603**
Total	—	**11,530**	**2,834**	**574**	—	**94**	**15,032**
Total %	—	**76.7 %**	**18.9 %**	**3.8 %**	—	**0.6 %**	**100.0 %**
2020 Total	—	10,858	2,273	—	—	225	13,356
2020 Total %	—	81.3 %	17.0 %	—	—	1.7 %	100.0 %

Other information

In this section	Page

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. The calculation of APMs is consistent with previous periods unless otherwise stated.

At 31 December 2021, the Solvency II Return on Equity (Solvency II RoE) and Solvency II Return on Capital (Solvency II RoC) APMs have been amended following a review of the basis of preparation. In the numerator, Transitional Measures on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis. This change in approach is considered more relevant because it enables a better comparison of Solvency II return across Life and General Insurance business. In addition, for Solvency II RoE only, the denominator has been adjusted to exclude excess capital above the Group's target Solvency II shareholder cover ratio (the return on excess capital has also been removed from the numerator for consistency), thus removing distortions that would arise from temporarily holding excess capital. Comparative amounts have been restated to reflect these changes.

In addition, 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to Aviva France, Italy, Poland and Turkey as discontinued operations.

On 4 March 2021, as part of our annual results we announced a new metric to measure our profitable growth in Aviva Investors (AI) to meet our key strategic initiatives. Consequently, we have added a new APM in 2021: cost income ratio (CIR). This measure provides useful information as it gives a simple view of how efficiently the business is being run, allowing management to clearly see how costs are moving in relation to income.

Following the review of the measures used to assess the trading performance of our investment management business, Value of new business on an adjusted Solvency II basis (VNB) and Present value of new business premiums (PVNBP) are no longer reported for Aviva Investors as these measures are more relevant to the Group's life insurance business. Comparative amounts have been amended to exclude the contribution of Aviva Investors to VNB and PVNBP.

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

- Group adjusted operating profit
- Combined operating ratio
- Claims, commission, and expense ratios
- Operating earnings per share
- Controllable costs
- IFRS return on equity
- IFRS net asset value per share
- Assets Under Management and Assets Under Administration
- Net flows
- Aviva Investors revenue
- Cost income ratio

Definitions and additional information, including reconciliation 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 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.

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. Other items at 2021 comprise:

- The following items are disclosed outside of Group adjusted operating profit as they relate to acquisition and disposal activity that we consider to be strategic in nature:
  - A charge of £76 million arising from third party reinsurance, accepted by Aviva from the former Aviva France general insurance entity, which was terminated on 31 December 2021;
  - A charge of £45 million relating to costs associated with the disposals of France, Italy, Aviva Vita, Poland, Singapore, Turkey and Vietnam, comprising IT contracts that have become onerous, severance costs associated with senior management and relocation costs;
  - Net charges of £22 million relating to provisions for indemnities entered into through acquisition and disposal activity.
- A charge of £51 million relating to the redemption payment in excess of the market value of debt repaid as part of the Group's deleveraging strategy. This is disclosed outside of Group adjusted operating profit as the costs arise from a strategic decision relating to the financing of the Group as a whole and not to the operating performance of the Group or its operating segments;
- A charge of £7 million relating to the cost of voluntary amendments to a small proportion of ground rent leases held by the Aviva Investors REaLM Ground Rent Fund; and
- A charge of £3 million relating to stamp duty costs on share buybacks.

Other items at 2020 comprised:

- A charge of £16 million relating to costs on contracts that became onerous following the disposals of Friends Provident International Limited (FPI), Singapore, Indonesia and Hong Kong. This was disclosed outside of Group adjusted operating profit as the onerous contracts arise as a result of disposal transactions which we consider to be strategic in nature; and
- A charge of £18 million relating to the estimated additional liability arising in the UK defined benefit pension schemes as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (GMP) for former members. This was disclosed outside of Group adjusted operating profit as the additional liability arose as a consequence of a further High Court judgement in November 2020 in the case involving Lloyds Banking Group, and does not reflect the financial performance of the Group for the year.

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 for the year 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.

	2021 £m	2020[1] £m
UK & Ireland Life	**1,428**	1,907
UK & Ireland General Insurance	**356**	213
Canada	**406**	287
Aviva Investors	**41**	25
UK, Ireland, Canada and Aviva Investors	**2,231**	2,432
International investments	**97**	26
	2,328	2,458
Corporate centre costs and Other operations	**(379)**	(282)
Group debt costs and other interest	**(315)**	(370)
Group adjusted operating profit before tax attributable to shareholders' profits from continuing operations	**1,634**	1,806
Group adjusted operating profit before tax attributable to shareholders' profits from discontinued operations	**631**	1,355
Group adjusted operating profit before tax attributable to shareholders' profits	**2,265**	3,161
Adjusted for the following:		
Life business: Investment variances and economic assumption changes	**(805)**	174
Non-life business: Short-term fluctuation in return on investments	**(149)**	(64)
General insurance and health business: Economic assumption changes	**(85)**	(104)
Impairment of goodwill, associates and joint ventures and other amounts expensed	**—**	(30)
Amortisation and impairment of intangibles acquired in business combinations	**(66)**	(76)
Amortisation and impairment of acquired value of in-force business	**(199)**	(278)
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	**1,572**	725
Other	**(204)**	(34)
Adjusting items before tax	**64**	313
IFRS profit before tax attributable to shareholders' profits	**2,329**	3,474
Tax on Group adjusted operating profit	**(470)**	(634)
Tax on other activities	**177**	70
	(293)	(564)
IFRS profit for the year	**2,036**	2,910

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.

Combined operating ratio (COR)

COR is a useful financial measure of general insurance underwriting profitability calculated as total underwriting costs in our insurance entities expressed as a percentage of net earned premiums. It is used to monitor the profitability of lines of business. A COR below 100% indicates profitable underwriting. The Group COR is shown below.

	2021 £m	2020[1] £m
Continuing operations		
Incurred claims – GI & Health	**(4,954)**	(5,044)
Adjusted for the following:		
Incurred claims – Health	**338**	278
Change in discount rate assumptions	**77**	84
Total incurred claims (included in COR)[2]	**(4,539)**	(4,682)
Commission and expenses – GI & Health	**(2,869)**	(3,016)
Adjusted for the following:		
Amortisation and impairment of intangibles acquired in business combinations	**10**	19
Foreign exchange (losses)/gains	**(48)**	47
Commission income	**16**	14
Other	**22**	16
Commission and expenses – Health & Other Non GI	**199**	211
Total commission and expenses (included in COR)[3]	**(2,670)**	(2,709)
Total underwriting costs from continuing operations	**(7,209)**	(7,391)
Total underwriting costs from discontinued operations	**(1,448)**	(1,549)
Total underwriting costs	**(8,657)**	(8,940)
Net earned premiums – GI & Health	**8,253**	8,062
Adjusted for:		
Net earned premiums – Health	**(490)**	(430)
Net earned premiums (included in COR) from continuing operations	**7,763**	7,632
Net earned premiums (included in COR) from discontinued operations	**1,430**	1,656
Net earned premiums (included in COR)	**9,193**	9,288
Combined operating ratio - continuing operations	**92.9%**	96.8 %
Combined operating ratio	**94.1%**	96.2 %

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note 1
2 Incurred claims (included in COR) includes Aviva Re amounts in 2020. As per incurred claims in Note 7.ii)
3 Commission and expenses (included in COR) is comprised of £1,706 million earned commission (2020: £1,703 million) and £964 million earned expenses (2020: £1,006 million). As per commission & expenses in note 7.ii)

Claims, commission, and expense ratios

Financial measures of the performance of our general insurance business which are calculated as incurred claims, earned commissions or earned expenses expressed as a percentage of net earned premiums, which can be derived from the COR table above. The ratios are meaningful to stakeholders because they enhance understanding of the profitability of the business sold.

Operating earnings per share (Operating 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 direct capital instrument 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. A reconciliation between operating EPS and basic EPS can be found in note B5.

Controllable costs

Controllable costs is a useful measure of 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 excludes:

- Impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangible assets acquired in business combinations; and amortisation and impairment of acquired value of in-force business. These items relate to merger, acquisition and disposal 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;
- 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;
- 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; and
- 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 and charges reported as 'Other' outside of Group adjusted operating profit.

A reconciliation of other expenses in the IFRS condensed consolidated income statement to controllable costs is set out below:

	2021 £m	2020[1] £m
Continuing operations		
Other expenses (IFRS income statement)	**2,211**	2,530
Add: other acquisition costs	**895**	836
Add: claims handling costs	**272**	297
Less: impairment of goodwill, associates and joint ventures and other amounts expensed	**—**	(16)
Less: amortisation and impairment of intangibles acquired in business combinations	**(54)**	(62)
Less: amortisation and impairment of acquired value of in-force business	**(189)**	(212)
Add/(less): foreign exchange gains/(losses)	**201**	(107)
Less: product governance and mis-selling costs	**(12)**	(38)
Less: premium based income taxes, fees and levies	**(195)**	(192)
Less: other costs	**(33)**	(5)
Controllable costs from continuing operations	**3,096**	3,031
Controllable costs from discontinued operations	**590**	904
Controllable costs	**3,686**	3,935

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to discontinued operations as described in note B2.

Controllable costs from continuing operations of £3,096 million (2020: £3,031 million) includes £240 million (2020: £107 million) relating to cost reduction implementation and IFRS 17 costs.

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 and preference share capital). IFRS RoE is a useful measure of growth and performance of the business on an IFRS basis. A reconciliation of IFRS RoE can be found in note A12.

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 is meaningful as a measure of the value generated by the Group in terms of the equity shareholders' face value per share investment.

	2021	2020
Equity attributable to shareholders of Aviva plc at 31 December[1] (£m)	**19,002**	19,354
Number of shares in issue at 31 December (in millions)	**3,766**	3,928
IFRS NAV per share	**505p**	493p

1 Excluding preference shares of £200 million (2020: £200 million).

Assets Under Management (AUM) and Assets Under Administration (AUA)

AUM represent all assets managed or administered by or on behalf of the Group's subsidiaries, 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 £43,582 million (2020: £40,166 million) 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:

	2021 £m	2020 £m
Assets managed on behalf of the Group's subsidiaries		
Assets included in statement of financial position[1]		
Financial investments	**264,961**	368,285
Investment properties	**7,003**	11,369
Loans	**38,624**	43,679
Cash and cash equivalents	**12,485**	17,090
Other	**6,192**	5,201
	329,265	445,624
Less: third-party funds and UK Platform included above	**(22,836)**	(26,614)
	306,429	419,010
Assets managed on behalf of third parties[2]		
Aviva Investors	**51,332**	74,086
UK Platform[3]	**43,101**	34,432
Other	**544**	7,162
	94,977	115,680
Total AUM[4]	**401,406**	534,690

1 2020 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 Savings & Retirement business.
4 Includes AUM of £267,780 million (2020: £365,772 million) managed by Aviva Investors

Net flows

Net flows is used by management as a key measure of growth in AUM, from which income is generated through asset management charges (AMCs). This measure is predominantly used in Aviva Investors and the Savings & Retirement business within UK & Ireland Life.

It is the net position of inflows and outflows. Inflows include IFRS net written premiums, deposits made under investment contracts, and other funds received from customers into AUM which are not included in the Group’s statement of financial position. Outflows include IFRS net claims paid, redemptions and surrenders under investment contracts, and other funds withdrawn by customers from AUM which are not included in the Group’s statement of financial position.

Aviva Investors net flows includes flows on internal assets which are managed on behalf of Group companies, and external flows on assets belonging to clients outside the Group which are not included in the Group's statement of financial position.

Net flows excludes market and other movements. Net flows when positive in the period can be referred to as net inflows and when negative as net outflows.

Aviva Investors revenue

Aviva Investors revenue includes AMCs received, plus transaction fees and other related income, and is stated net of fees and commissions paid. It is a useful measure of revenue earned from fund management activities. Aviva Investors recognises fee income in the segmental income statement within both fee and commission income and inter-segment revenue. Fees and commissions paid are classified in fee and commission expense.

Cost income ratio (CIR)

Cost income ratio is used to monitor profitable growth in Aviva Investors and is useful as it gives a simple view of how efficiently the business is being run, allowing management to clearly see how costs are moving in relation to income.

Cost income ratio is calculated as Aviva Investors' controllable costs excluding cost reduction implementation and IFRS 17 costs divided by Aviva Investors revenue.

		Aviva Investors
	2021 £m	2020 £m
Aviva Investors revenue	**403**	381
Controllable costs excluding cost reduction implementation and IFRS 17 costs	**345**	356
Cost income ratio	**86%**	93%

APMs derived from Solvency II measures

The Group is a regulated entity under the Solvency II regulatory framework and therefore uses a number of APMs that are derived from Solvency II measures in addition to those that are derived from IFRS based measures.

A number of key performance measures relating to Solvency II are utilised to measure and monitor the Group's performance and financial strength

- Solvency II shareholder cover ratio
- Value of new business on an adjusted Solvency II basis (VNB)
- Solvency II operating own funds generation (Solvency II OFG)
- Solvency II operating capital generation (Solvency II OCG)
- Solvency II future surplus emergence
- Solvency II return on capital (Solvency II RoC)
- Solvency II return on equity (Solvency II RoE)
- Solvency II net asset value per share (Solvency II NAV per share)
- Solvency II debt leverage ratio

The Solvency II regulatory framework 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 includes 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 key differences between the two bases are as follows:

- Elimination of goodwill and other intangible assets
- Valuation adjustments to reflect insurance assets and liabilities valued on a best estimate basis using market-implied assumptions
- Valuation adjustments and the impact of the difference between consolidation methodologies under Solvency II and IFRS
- Tax effect of all other reconciling items in the table below which are shown gross of tax
- Recognition of subordinated debt capital, non-controlling interests and adjustments for ring-fenced funds restrictions

The reconciliation from total Group equity on an IFRS basis to Solvency II regulatory own funds is presented below.

	2021 £m	2020 £m
Total Group equity on an IFRS basis	**19,454**	20,560
Elimination of goodwill and other intangible assets		
Goodwill	**(1,741)**	(1,805)
Acquired value of in-force business	**(1,544)**	(1,742)
Deferred acquisition costs (net of deferred income)	**(2,617)**	(3,154)
Other intangibles	**(406)**	(704)
Liability valuation differences (net of transitional deductions)	**11,625**	16,159
Inclusion of risk margin (net of transitional deductions)	**(1,601)**	(3,245)
Revaluation of subordinated liabilities	**(449)**	(795)
Other accounting differences	**155**	(69)
Net deferred tax	**(597)**	(1,191)
Estimated Solvency II net assets (gross of non-controlling interests)	**22,279**	24,014
Difference between Solvency II net assets and regulatory own funds	**3,294**	5,248
Estimated Solvency II regulatory own funds	**25,573**	29,262

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 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 31 December 2021 position includes a formal, rather than notional, reset of the TMTP in line with the regulatory requirement to reset the TMTP at least every two years. The 31 December 2020 position included a notional reset;
- Adjustments are made if the Solvency II shareholder cover ratio does not fully reflect the effect of future regulatory changes that are known as at each reporting date. These adjustments are made in order to show a more representative view of the Group's solvency position. No adjustments for future regulatory changes were made at 31 December 2021 or 31 December 2020.

A reconciliation of the Solvency II regulatory surplus to the Solvency II shareholder surplus is provided below:

	31 December 2021			31 December 2020		
	Own funds £m	**SCR £m**	**Surplus £m**	Own funds £m	SCR £m	Surplus £m
Estimated Solvency II regulatory surplus	**25,573**	**(12,499)**	**13,074**	29,262	(16,441)	12,821
Adjustments for:						
Fully ring-fenced with-profit funds	**(2,205)**	**2,205**	—	(2,492)	2,492	—
Staff pension schemes in surplus	**(1,218)**	**1,218**	—	(1,179)	1,179	—
Notional reset of TMTP	—	—	—	564	—	564
PPE[1]	—	—	—	(385)	—	(385)
Estimated Solvency II shareholder surplus	**22,150**	**(9,076)**	**13,074**	25,770	(12,770)	13,000

1 French insurers are permitted to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. At 31 December 2020 PPE of £0.4 billion is included within Group regulatory own funds but remains excluded from the shareholder position as agreed with the regulator. At 31 December 2021 this is no longer included following the disposal of France.

A summary of the shareholder view of the Group's Solvency II position is shown in the table below::

	2021 £m	2020 £m
Own Funds	**22,150**	25,770
Solvency Capital Requirement	**(9,076)**	(12,770)
Estimated Solvency II Surplus	**13,074**	13,000
Estimated Shareholder Cover Ratio	**244 %**	**202 %**

Given the disposals in 2021 and the plans for deployment of the capital, an estimated Solvency II shareholder cover ratio that allows for the announced uses of capital has also been provided. This has been reconciled to the reported Solvency II shareholder cover ratio. See note 5.vii for the Solvency II shareholder cover ratio post capital deployment.

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 non-life Retail business and UK Equity Release); and
- Reflect a gross of tax and non-controlling interests basis, and other differences as set out in the footnote to the table below.

A reconciliation between VNB and the Solvency II own funds impact of new business is provided below:

				2021				2020
	UK & Ireland Life £m	International investments £m	Discontinued operations £m	Group £m	UK & Ireland Life £m	International investments £m	Discontinued operations[3] £m	Group[2] £m
VNB (gross of tax and non-controlling interests)	**668**	**78**	**328**	**1,074**	**675**	**29**	**547**	**1,251**
Solvency II contract boundary restrictions – new business	(91)	—	(151)	(242)	(108)	(1)	(208)	(317)
Solvency II contract boundary restrictions – increments / renewals on in-force business	101	—	58	159	113	—	96	209
Businesses which are not in the scope of Solvency II own funds	(204)	—	(1)	(205)	(106)	(1)	(4)	(111)
Tax and Other[1]	(114)	(15)	(144)	(273)	(125)	(7)	(202)	(334)
Solvency II own funds impact of new business (net of tax and non-controlling interests)	**360**	**63**	**90**	**513**	**449**	**20**	**229**	**698**

1 Other includes the impact of 'look through profits' in service companies (where not included in Solvency II) of £(66) million (2020: £(69) million), the reduction in value when moving to a net of non-controlling interests basis of £(42) million (2020: £(37) 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 £(22) million (2020: £(47) 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 (2020: £(4) million). Aviva Vietnam was sold during December 2021, so the adjustment relating to Small Asian Markets only applied until then.

2 VNB for Aviva Investors is no longer reported as this is not an APM used to assess the trading performance of our investment business. Comparative amounts have been amended to exclude the contribution of Aviva Investors to VNB (2020: £9 million).

3 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.

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)

The MA is an addition to the rate used to discount Solvency II best-estimate liabilities, to reflect the return on the matching assets used. An MA is applied to certain obligations based on the 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 an MA to certain obligations in UK Life, using methodology which is set out in the Solvency and Financial Condition Report (SFCR).

The MA used for 2021 UK new business (where applicable) was 85 bps (2020: 98 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:

	2021 £m	2020[1] £m
Present value of new business premiums[2]	**46,202**	42,092
General insurance and health net written premiums	**10,207**	10,232
Long-term health and collectives business[2]	**(3,274)**	(2,381)
Effect of capitalisation factor on regular premium long-term business[3]	**(15,555)**	(14,686)
Joint ventures and associates[4]	**(625)**	(226)
Annualisation impact of regular premium long-term business[5]	**(361)**	(399)
Deposits[6]	**(11,561)**	(9,936)
IFRS gross written premiums from existing long-term business[7]	**3,722**	5,066
Long-term insurance and savings business premiums ceded to reinsurers	**(3,979)**	(3,101)
Total IFRS net written premiums	**24,776**	26,661
Analysed as:		
IFRS net written premiums from continuing business	**14,697**	15,090
IFRS net written premiums from discontinued operations	**10,079**	11,571
	24,776	26,661
Analysed as:		
Long-term insurance and savings net written premiums	**14,569**	16,429
General insurance and health net written premiums	**10,207**	10,232
	24,776	26,661

1 The 2020 comparative amounts have been re-presented from those previously published to reclassify the amounts relating to certain operations as discontinued operations as described in note B2.
2 PVNBP for Aviva Investors is no longer reported as this is not an APM used to assess the trading performance of our investment business. Comparative amounts have been amended to exclude the contribution of Aviva Investors to PVNBP (2020: £1,266 million). £35,625 million (2020: £29,259 million) relates to UK & Ireland Life, £1,121 million (2020: £663 million) relates to International investments and £9,456 (2020: £12,170 million) relates to discontinued operations.
3 Discounted value of regular premiums expected to be received over the term of the new contract, adjusted for expected levels of persistency.
4 Total long-term new business sales include our share of sales from joint ventures and associates. Under IFRS, premiums from these sales are excluded.
5 The impact of annualisation is removed in order to reconcile the non-GAAP new business sales to IFRS premiums.
6 Under IFRS, only the margin earned from non-participating investment contracts is recognised in the IFRS income statement.
7 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.

Solvency II operating own funds generation (Solvency II OFG)

Solvency II operating own funds generation measures the amount of Solvency II own funds generated from operating activities and incorporates an expected return on investments supporting the life and non-life insurance businesses. Solvency II operating own funds generation is used to assess sustainable growth. 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 expected investment returns assumed within Solvency II OFG are consistent with the returns used for Group adjusted operating profit. Solvency II OFG 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) and model changes that are non-economic in nature.

Consistent with the Group adjusted operating profit APM, Solvency II OFG is determined on start of period economic assumptions and therefore excludes economic variances and economic assumption changes.

Solvency II operating own funds generation is the own funds component of Solvency II OCG (see below).

Solvency II operating capital generation (Solvency II OCG)

Solvency II operating capital generation (Solvency II 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 businesses, which in turn, supports the Group's dividend as well as funding further investment to provide sustainable growth.

Solvency II OCG reflects Solvency II OFG and operating movements in the SCR including the impact of capital actions, for example, strategic changes in asset mix including changes in hedging exposure.

An analysis of the components of Solvency II OCG is presented below:

	2021 £m	2020 £m
Solvency II own funds impact of new business (net of tax and non-controlling interests)	**513**	698
Operating own funds generation from life existing business	**694**	721
Operating own funds generation from non-life	**397**	562
Management actions and other operating own funds generation[1]	**296**	6
Group debt costs	**(255)**	(296)
Solvency II operating own funds generation	**1,645**	1,691
Solvency II operating SCR impact	**(84)**	241
Solvency II OCG	**1,561**	1,932

1 Management actions and other includes the impact of capital actions, non-economic assumption changes and other non-recurring items..

Solvency II 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.

			2021			2020
Shareholder view movement	Own funds £m	SCR £m	Surplus £m	Own funds £m	SCR £m	Surplus £m
Group Solvency II shareholder surplus at 1 January	**25,770**	**(12,770)**	**13,000**	24,548	(11,910)	12,638
Opening restatements[1]	**—**	**—**	**—**	78	(202)	(124)
Operating capital generation	**1,645**	**(84)**	**1,561**	1,691	241	1,932
Non-operating capital generation	**(1,310)**	**1,156**	**(154)**	(741)	(963)	(1,704)
Dividends[2]	**(874)**	**—**	**(874)**	(549)	—	(549)
(Repayment)/issue of debt	**(1,506)**	**—**	**(1,506)**	257	—	257
Share buyback[3]	**(1,000)**	**—**	**(1,000)**	—	—	—
Disposals completed	**(575)**	**2,622**	**2,047**	486	64	550
Estimated Solvency II shareholder surplus at 31 December	**22,150**	**(9,076)**	**13,074**	25,770	(12,770)	13,000

1 Opening restatements allows for adjustments to the estimated position presented in the 2020 preliminary announcement and the final position in the 2020 Solvency and Financial Condition Report (SFCR).
2 Dividends includes £17 million of Aviva plc preference dividends (2020: £17 million) and £21 million of General Accident plc preference dividends (2020: £21 million), and £549 million for the final dividend in respect of the 2020 financial year and £286 million for the interim dividends in respect of the 2021 financial year (2020: £511 million for the interim dividends in respect of the 2019 and 2020 financial years).
3 For Solvency II purposes, the total £1 billion share buyback is derecognised from regulatory capital following its approval by the Board. As at 31 December 2021, £663 million of this buyback had been completed.

Solvency II future surplus emergence

Solvency II future surplus emergence is a projection of the capital generation from existing long-term in-force life business and provides an indication of our expected Solvency II OCG from this business in future periods.

The projection is a static analysis as at a point in time and hence it does not include the potential impact of future new business or the potential impact of active management of the business (for example, active management of market, demographic and expense risk through investment, hedging, risk transfer, operational risk and expense management). It is also based on a linear run-off of the TMTP. These items may affect the actual amount of Solvency II OCG earned from existing business in future periods.

For business subject to short contract boundaries under Solvency II, allowance has been made for the impact of renewal premiums as and when they are expected to occur.

The projected surplus, which is primarily expected to arise from the release of risk margin (including transitional measures) and solvency capital requirement as the business runs off over time, is expected to emerge through Solvency II OCG in future years. For 2021 the scope of business included within Solvency II future surplus emergence has been expanded to include Platform business in UK Life. The comparative for 2020 has not been restated on materiality grounds.

The cash flows are real-world cash flows, i.e. they are based on best estimate non-economic assumptions used in the Solvency II valuation and real-world investment returns rather than risk-free. The expected investment returns are consistent with the methodology used in the Group adjusted operating profit.

Solvency II return on equity (Solvency II RoE)

At 31 December 2021, the Solvency II RoE APM has been amended following a review of the basis of preparation. In the numerator, Transitional Measures on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis and the return on excess capital has been removed. The denominator has been adjusted to exclude excess capital above the Group's target Solvency II shareholder cover ratio. This change in approach is considered more relevant because:

- The economic cost of holding equivalent capital to the opening value of TMTP (on a shareholder basis) enables a better comparison of Solvency II return across Life and General Insurance business, the impact of TMTP is incorporated using a more economic approach; and
- The denominator better reflects the long-term target Solvency II shareholder cover ratio which removes distortions in the evaluation of growth and performance that would otherwise arise where the Group is temporarily holding excess capital. The return on excess capital has also been removed from the numerator for consistency.

Comparative amounts have been restated to reflect these changes. Remuneration targets and performance outcomes will be updated to reflect the revised basis of preparation. Solvency II RoE continues to provide useful information as it is used as an economic value measure by the Group to assess growth and performance.

Solvency II RoE is now calculated as:

- Operating own funds generation less preference dividends, Direct Capital Instrument (DCI) coupons and excluding the return on excess capital above target capital, adjusted to replace the run-off of TMTP with the economic cost of holding TMTP (calculated as Group Weighted Average Cost of Capital plus 1-yr swap rate, multiplied by the opening TMTP on a shareholder basis), divided by:
- Opening Unrestricted tier 1 shareholder Solvency II own funds adjusted to exclude excess capital. Excess capital is derived as Solvency II shareholder own funds in excess of those needed to meet our target shareholder cover ratio (currently 180%).

Solvency II RoE is calculated on an annualised basis.

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	2021 £m	2020 £m
Unrestricted regulatory tier 1 own funds	**19,120**	20,850
Restricted Tier 1	**967**	1,317
Tier 2	**5,363**	6,740
Tier 3[1]	**123**	355
Estimated Solvency II regulatory own funds	**25,573**	29,262

1. Tier 3 regulatory own funds at 31 December 2021 consists of £123 million net deferred tax assets (2020: £259 million subordinated debt plus £96 million net deferred tax assets).

Shareholder view	2021 £m	2020 £m
Unrestricted regulatory tier 1 own funds	**19,120**	20,850
Adjustments for:		
Fully ring-fenced with-profit funds	**(2,205)**	(2,492)
Staff pension schemes in surplus	**(1,218)**	(1,179)
Notional reset of TMTP	**—**	564
PPE	**—**	(385)
Unrestricted shareholder tier 1 own funds	**15,697**	17,358

The Solvency II return on equity is shown below:

	2021 £m	Restated 2020 £m
Solvency II operating own funds generation	**1,645**	1,691
Adjustment to replace TMTP run-off with economic cost of TMTP	**43**	44
Adjustment to remove return on excess capital	**(2)**	(7)
Adjusted Solvency II operating own funds generation	**1,686**	1,728
Less preference share dividends	**(38)**	(38)
Less DCI coupons	**—**	(27)
	1,648	1,663
Opening Unrestricted tier 1 shareholder Solvency II own funds	**17,358**	16,578
Adjustment to remove excess capital above target Solvency II shareholder cover ratio	**(2,784)**	(3,110)
Adjusted opening unrestricted tier 1 shareholder Solvency II own funds	**14,574**	13,468
Solvency II return on equity	**11.3 %**	12.3 %

Group Solvency II RoE on a continuing basis has been disclosed as at 31 December 2020 and 31 December 2021.

Group Solvency II RoE on a continuing basis excludes the contribution from our discontinued operations and is therefore more representative of the Group's performance going forward. It has been calculated on a consistent basis to Group Solvency II RoE except that an adjustment is made to remove the contribution of discontinued operations from the numerator and the denominator.

Given all disposals have completed by 31 December 2021, Group Solvency II RoE on a continuing basis will not be required from 2022 onwards.

The table below provides a reconciliation between Group Solvency II RoE and Group Solvency II RoE on a continuing basis:

	2021			Restated 2020		
	Solvency II OFG (post TMTP adjustment) £m	Opening own funds £m	Solvency II return on equity %	Solvency II OFG (post TMTP adjustment) £m	Opening own funds £m	Solvency II return on equity %
Group Solvency II return on equity at 31 December	**1,648**	**14,574**	**11.3 %**	1,663	13,468	12.3 %
Adjustment to remove impacts of discontinued operations[1]	**(433)**	**(3,254)**	**N/A**	(410)	(2,747)	N/A
Group Solvency II return on equity at 31 December on a continuing basis	**1,215**	**11,320**	**10.7 %**	1,253	10,721	11.7 %

1 When calculating opening unrestricted tier 1 shareholder Solvency II own funds attributable to discontinued operations, adjusted to exclude excess capital, restricted tier 1, tier 2 and tier 3 capital repaid during 2021 is assumed to be attributable to discontinued operations.

Solvency II return on capital (Solvency II RoC)

At 31 December 2021, the Solvency II RoC APM has been amended following a review of the basis of preparation. In the numerator, Transitional Measures on Technical Provisions (TMTP) run-off has been replaced with the economic cost of holding equivalent capital to the opening value of TMTP on a shareholder basis. This change in approach is considered more relevant because it enables a better comparison of Solvency II return across Life and General Insurance business, the impact of TMTP is incorporated using a more economic approach. This amendment to Solvency II RoC is consistent with the corresponding change to Solvency II RoE. Comparative amounts have been restated to reflect these changes.

Solvency II RoC is now calculated as:
- Operating own funds generation adjusted to replace the run-off of TMTP with the economic cost of holding TMTP (calculated as Group Weighted Average Cost of Capital plus 1-yr swap rate) multiplied by the opening TMTP on a shareholder basis), divided by:
- Opening shareholder Solvency II own funds.

For UK general insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds. This removes any distortions arising from our general insurance legal entity structure and therefore ensures consistency in measuring performance across markets. This is only applicable to UK general insurance Solvency II return on capital and not to the aggregated Group Solvency II return on equity measure.

Solvency II return on capital is an unlevered economic value measure as it is used to assess growth and performance in our markets before taking debt into account. It is calculated on an annualised basis. A reconciliation of Solvency II return on capital by market to Group return on equity is provided below.

2021	Solvency II OFG (post TMTP adjustment) £m	Opening shareholder own funds £m	Solvency II return on capital/equity %
Market Solvency II return on capital			
UK & Ireland Life	**996**	**15,073**	**6.6 %**
UK & Ireland General Insurance[1]	**339**	**2,401**	**14.1 %**
Canada	**332**	**1,534**	**21.6 %**
Aviva Investors	**36**	**385**	**9.3 %**
UK, Ireland, Canada and Aviva Investors	**1,703**	**19,393**	**8.8 %**
International investments	**124**	**909**	**13.6 %**
Discontinued operations	**458**	**6,362**	**7.2 %**
Reconciliation to Group Solvency II return on equity			
Corporate centre costs and Other[1]	**(342)**	**(894)**	**N/A**
Less: Senior and subordinated debt	**(255)**	**(7,866)**	**— %**
Less: Adjustment to remove excess capital above target Solvency II shareholder cover ratio	**(2)**	**(2,784)**	**— %**
Less: Direct capital instrument and Preference shares[2]	**(38)**	**(450)**	**— %**
Less: Net deferred tax assets	**—**	**(96)**	**— %**
Solvency II return on equity at 31 December	**1,648**	**14,574**	**11.3 %**

1 For UK general insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets. This is only applicable to UK general insurance Solvency II return on capital and not to the aggregated Group Solvency II return on equity measure, with the reversal of the impact included in Corporate centre costs and Other opening own funds.

2 Preference shares includes £21 million of dividends and £250 million of capital in respect of General Accident plc.

2020	Restated Solvency II OFG (post TMTP adjustment) £m	Opening shareholder own funds £m	Restated Solvency II return on capital/equity %
Market Solvency II return on capital			
UK & Ireland Life	1,101	14,241	7.7 %
UK & Ireland General Insurance[1]	329	2,509	13.1 %
Canada	287	1,442	19.9 %
Aviva Investors	26	413	6.3 %
UK, Ireland, Canada and Aviva Investors	1,743	18,605	9.4 %
International investments	63	643	9.8 %
Discontinued operations[3]	503	7,422	6.8 %
Reconciliation to Group Solvency II return on equity			
Corporate centre costs and Other[1,3]	(278)	(2,122)	N/A
Less: Senior and subordinated debt	(296)	(6,942)	— %
Less: Adjustment to remove excess capital above target Solvency II shareholder cover ratio	(7)	(3,110)	— %
Less: Direct capital instrument and Preference shares[2]	(65)	(950)	— %
Net deferred tax assets	—	(78)	— %
Solvency II return on equity at 31 December	1,663	13,468	12.3 %

1 For UK general insurance only, capital held for internal risk appetite purposes is used instead of opening shareholder Solvency II own funds to ensure consistency in measuring performance across markets. This is only applicable to UK general insurance Solvency II return on capital and not to the aggregated Group Solvency II return on equity measure, with the reversal of the impact included in Corporate centre costs and Other opening own funds.
2 Preference shares includes £21 million of dividends and £250 million of capital in respect of General Accident plc.
3 Following a review of Group adjustments in respect of discontinued operations, comparative amounts for the 12 months ended 31 December 2020 have been amended to reclassify these as Discontinued operations from Corporate centre costs and Other. The change has no impact on the Group's Solvency II return on equity.

Solvency II net asset value per share (Solvency II 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 closing 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:

	2021	2020
Unrestricted tier 1 shareholder Solvency II own funds (£m)	**15,697**	17,358
Number of shares in issue (in millions)	**3,766**	3,928
Solvency II NAV per share	**417p**	442p

Solvency II debt leverage ratio

Solvency II debt leverage ratio is calculated as total debt expressed as a percentage of Solvency II regulatory own funds plus senior debt and commercial paper. Solvency II regulatory debt includes subordinated debt and preference share capital. The Solvency II debt leverage ratio provides a measure of the Group's financial strength.

	2021 £m	2020 £m
Solvency II regulatory debt	**6,330**	8,316
Senior notes	**651**	1,112
Commercial paper	**50**	108
Total debt	**7,031**	9,536
Estimated Solvency II regulatory own funds, senior debt and commercial paper	**26,274**	30,482
Solvency II debt leverage ratio	**27 %**	31 %

A reconciliation from IFRS subordinated debt to Solvency II regulatory debt is provided below:

	2021 £m	2020 £m
IFRS borrowings	**7,344**	9,727
Less: Borrowings not classified as Solvency II regulatory debt		
Senior notes	**(651)**	(1,112)
Commercial paper	**(50)**	(108)
Operational borrowings	**(1,211)**	(1,474)
IFRS subordinated debt	**5,432**	7,033
Revaluation of subordinated liabilities	**449**	795
Other movements	**(1)**	38
Solvency II subordinated debt	**5,880**	7,866
Preference share capital	**450**	450
Solvency II regulatory debt	**6,330**	8,316

Other APMs

Cash remittances

Cash paid by our operating businesses to the Group, for the period between March 2021 and the end of the month preceding the results announcement 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 are considered a useful measure as they support the payments of external dividends. Cash remittances eliminate on consolidation and hence are not directly reconcilable to the Group's IFRS consolidated statement of cash flows.

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. Excess centre cash flow when positive in the period can be referred to as excess centre cash inflows and when negative as excess centre cash outflows.

Centre liquidity

Centre liquidity comprises cash and liquid assets and represents amounts as at the end of the month preceding results announcements. It 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.

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.