

News Release

Aviva plc

Aviva plc Interim Results Statement
6 months 30 June 2013
8 August 2013



Aviva plc Interim Results Announcement 2013

Mark Wilson, Group Chief Executive Officer, said:

"In the first half we have taken a number of steps to deliver our investment thesis of cash flow and growth. These results show satisfactory progress in Aviva's turnaround.

"We have achieved profit after tax of £776 million, in contrast to the £624 million loss last year. Cash flows to the Group have increased by 30% to £573 million. Our key measure of sales – value of new business – has increased 17%, driven by the UK, France, Poland, Turkey and Asia.

"Although these results continue the positive trends of the first quarter, tackling our legacy issues will take time.

"I am committed to achieving for investors what we set out to do: turning around the company to unlock the considerable value in Aviva."

Cash flow

- Cash remittances to Group up 30% at £573 million¹ (HY12: £441 million)
- Operating capital generation £936 million¹ (HY12: £906 million)
- The interim dividend is 5.6 pence per share (HY12: 10.0 pence per share), consistent with guidance given at the full year 2012

Profit

- Operating profit 5% higher at £1,008 million¹ (HY12: £959 million)
- IFRS profit after tax of £776 million (HY12: loss after tax of £624 million)

Expenses

- Operating expenses 9% lower at £1,528 million² (HY12: £1,675 million)
- Restructuring costs 10% lower at £164 million¹ (HY12: £182 million)

Value of new business

- Value of new business up 17% to £401 million (HY12: £343 million)
- Increase driven by UK Life, France, Poland, Turkey and Asia

Combined operating ratio

- Combined operating ratio 96.2% (HY12: 95.5%)

Balance sheet

- Intercompany loan reduced by £700 million to £5.1 billion
 - IFRS net asset value per share 281p (FY12: 278p)
 - MCEV net asset value per share 441p (FY12: 422p)
 - Pro forma³ economic capital surplus⁴ within our target range at £7.6 billion, 175% (FY12: £7.1 billion, 172%)
 - Sale of remaining shareholding in Delta Lloyd, disposal of businesses in Russia and Malaysia, and transfer of Aseval completed
-

¹ On a continuing basis, excluding US Life and Delta Lloyd.

² Operating expenses excludes integration and restructuring costs, US Life and Delta Lloyd.

³ The pro forma economic capital surplus at HY13 includes the impact of the US Life transaction and an increase in pension scheme risk allowance from five to ten years of stressed contributions (FY12: includes the benefit of completing the US Life, Aseval, Delta Lloyd and Malaysia transactions).

⁴ The economic capital surplus represents an estimated position. The capital requirement is based on Aviva's own internal assessment and capital management policies. The term 'economic capital' does not imply capital as required by regulators or other third parties.

Key financial metrics

Cash

	Cash remitted to Group			Operating capital generation		
	6 months 2013 £m	6 months 2012 £m	Sterling% change	6 months 2013 £m	Restated ¹ 6 months 2012 £m	Sterling% change
Continuing operations, excluding Delta Lloyd						
United Kingdom & Ireland life	300	150	100%	261	370	(29)%
United Kingdom & Ireland general insurance & health	—	115	—	216	198	9%
Europe	209	160	31%	321	271	18%
Canada	63	—	—	108	114	(5)%
Asia and Other	1	16	(94)%	30	(47)	164%
Total	573	441	30%	936	906	3%

Operating profit before tax: IFRS basis

	6 months 2013 £m	Restated ¹ 6 months 2012 £m	Sterling% change
Continuing operations, excluding Delta Lloyd			
Life business	910	897	1%
General insurance and health	428	462	(7)%
Fund management	42	18	133%
Other*	(372)	(418)	11%
Total	1,008	959	5%

* Includes other operations, Corporate Centre costs and Group debt and other interest costs.

Expenses

	6 months 2013 £m	6 months 2012 £m	Sterling% change
Continuing operations			
Operating expenses	1,528	1,675	(9)%
Integration and restructuring costs	164	182	(10)%
Expense base	1,692	1,857	(9)%

Value of new business

	6 months 2013 £m	6 months 2012 £m	Sterling% change
Continuing operations			
United Kingdom	211	182	16%
Ireland	1	(6)	117%
France	86	62	39%
Poland	21	18	17%
Italy	6	14	(57)%
Spain	13	21	(38)%
Turkey & Other Europe	21	15	40%
Asia – excluding Malaysia and Sri Lanka	41	29	41%
Value of new business – pro forma basis	400	335	19%
Effect of disposals (Malaysia and Sri Lanka)	1	8	
Value of new business	401	343	17%

General insurance combined operating ratio

	6 months 2013	6 months 2012	Change
Continuing operations			
United Kingdom & Ireland	96.9%	98.0%	(1.1)pp
Europe	97.0%	97.9%	(0.9)pp
Canada	92.4%	89.8%	2.6pp
General insurance combined operating ratio	96.2%	95.5%	0.7pp

IFRS Profit after tax

	6 months 2013 £m	Restated ¹ 6 months 2012 £m	Sterling% change
IFRS profit/(loss) after tax	776	(624)	n/a

Interim dividend

	6 months 2013	6 months 2012
Interim dividend per share	5.6p	10.0p

Capital position

	Pro forma ³ 30 June 2013 £bn	Pro forma ³ 31 December 2012 £bn	30 June 2013 £bn	31 December 2012 £bn
Estimated economic capital surplus ²	7.6	7.1	7.1	5.3
Estimated IGD solvency surplus	3.7	3.9	4.2	3.8
IFRS net asset value per share			281p	278p
MCEV ⁴ net asset value per share			441p	422p

¹ The Group adopted the amendments to IAS19 and IFRS10 during the period and the requirements of the revised standards have been applied retrospectively.

² The economic capital surplus represents an estimated position. The capital requirement is based on Aviva's own internal assessment and capital management policies. The term 'economic capital' does not imply capital as required by regulators or other third parties.

³ The pro forma economic capital and IGD surpluses at HY13 include the impact of the US Life transaction and, for economic capital only, an increase in pension scheme risk allowance from five to ten years of stressed contributions (pro forma FY12: includes the benefit of completing the US Life, Aseval, Delta Lloyd and Malaysia transactions and, for economic capital only, an increase in pension scheme risk allowance from five to ten years of stressed contributions).

⁴ In preparing the MCEV information, the directors have done so in accordance with the European Insurance CFO Forum MCEV Principles with the exception of stating held for sale operations at their expected fair value, as represented by expected sale proceeds, less cost to sell.

Group Chief Executive Officer's Report

Overview

Progress in the first six months of 2013 has been satisfactory. There have been some areas of solid performance and several areas of underperformance which are being addressed.

Since becoming Group Chief Executive Officer at the start of the year I have had the opportunity to visit most of our businesses and to speak to many of our people and our customers. We have leading positions in several countries; customer service is strong and our expertise in underwriting, data and predictive analytics are core differentiating skills. It is essential that these skills are shared and developed across the Group for the benefit of all of our stakeholders.

In March I set out our investment thesis of "cash flow plus growth" and this is starting to transform the way we do business. We are focusing on five key metrics: cash flow, IFRS operating profit, value of new business, operating expenses and combined operating ratio. In the first half of the year the trends have been satisfactory across these metrics and are broadly consistent with the improvements in the first quarter.

Solid progress has been made in reducing the size of the internal loan by £700 million (of which £300 million is in cash) ahead of our commitment to reduce it by £600 million over three years. In addition we have increased our provision for default on the commercial mortgage portfolio by £300 million to £1.5 billion.

Cash flow

- Cash remitted to Group of £573 million
- OCG stable at £0.9 billion
- Interim dividend 5.6 pence per share

We are managing our businesses in established markets to maximise cash flows to the Group. Cash flows are dividends paid by our business units to Group. In the first half of 2013, £573 million of cash was remitted to Group (*HY12: £441 million*).

Operating capital generation (OCG) was £936 million¹ (*HY12: £906 million*) with improvements in life new business strain, fund management and central costs, offset by fewer one-off positive variances in life and the impact of floods on our general insurance business in Canada. Our priority is to improve the remittance ratios from OCG to dividends, which in previous years have been significantly lower than our peers.

In line with our guidance at the full year results in March 2013, the interim dividend is 5.6 pence per share, consistent with the percentage reduction in the 2012 final dividend. We also announced at the full year results that we would eliminate the scrip to stop further shareholder dilution and improve earnings per share growth.

IFRS operating profit

- Operating profit: £1,008 million

In the first six months IFRS operating profit was £1,008 million¹ (*HY12: £959 million*). IFRS operating profit levels were 5% higher primarily due to lower expenses. The diversified nature of our business ensured that our profits were resilient despite the economic backdrop and the low interest rate environment.

While operating profit is satisfactory at a Group level, it is far from satisfactory in several of our businesses. In Spain and Italy, although underlying profits have increased, there is considerable scope to improve performance. In Ireland and Aviva Investors it is essential that we see a significant improvement in operating performance over time. Although some progress has been made reshaping these turnaround businesses and cutting expenses, there is some way to go before product mix and efficiency levels are adequate. We have recently appointed new leaders in Aviva Investors and Ireland which will help the pace of transformation.

Expenses

- Operating expenses 9% lower at £1,528 million
- Restructuring costs of £164 million (*HY12: £182 million*)

We have made adequate progress reducing our operating expenses, which are 9% lower at £1,528 million¹ (*HY12: £1,675 million*).

There is potential for additional cost savings within the Group which are likely to be allocated towards strategic initiatives including digital and automation, to improve the efficiency of our business going forward.

Restructuring cost reductions are in addition to the £400 million expense savings target. In the first half of 2013, restructuring costs were 10% lower at £164 million (*HY12: £182 million*). Although restructuring costs in 2013 will still be significant, I expect them to be lower than the 2012 level of £461 million¹, with material reductions in 2014.

¹ On a continuing basis, excluding US Life and Delta Lloyd.

Value of new business

- VNB up 17% to £401 million

We determine growth not by the top line - we already have scale in many markets - but by the value of new business (VNB), which is the source of future cash flow. VNB increased 17% to £401 million (HY12: £343 million) driven by improved profitability and product mix in UK Life and France, which increased by 16% and 39% respectively. In the growth markets of Poland, Turkey and Asia (excluding Malaysia and Sri Lanka) VNB improved by 17%, 54% and 41% respectively. We expect the overall growth rate in VNB to moderate during the second half of 2013.

Combined operating ratio

- COR at 96.2%
- Predictive analytics key focus

In general insurance, the combined operating ratio (COR) in the first half was satisfactory at 96.2% (HY12: 95.5%). The general insurance performance includes an impact of £70 million as a result of the floods in Alberta, Canada, offset by better than expected weather in the UK. In the UK and Canada, our major general insurance businesses, the combined operating ratios were 96.3% and 92.4% respectively (HY12: 97.2% and 89.8%).

We continue to invest in predictive analytics across our personal and commercial lines of business. Our strong personal lines results, particularly in Canada, demonstrate the benefits of the development of centres of excellence in this area. We are focussed on improving our performance across the Group by exporting this capability throughout the business.

A key strength of Aviva is our diversification across geography and lines of business. By way of example, in the UK we are starting to experience rate hardening across our commercial lines business at a time of softening rates across personal lines. In Canada, we expect hardening rates in property and softening of rates in motor.

Geographic strategy

I see Aviva as a portfolio of businesses grouped into three areas: cash flow generators, future cash flow generators and turnaround businesses. Within each of these groups there are areas of underperformance which are being addressed.

Our cash flow generators are UK, France and Canada and our objective in these markets is to improve cash flow and profitability.

The turnaround businesses are Italy, Spain, Ireland and Aviva Investors. In Spain and Italy we are focused on managing their back books to release free capital and improve cash remittances to group. Aviva Investors has underperformed from a shareholder perspective and we expect it to play a more prominent role in the group going forward. We have recently appointed Euan Munro who will play a pivotal role helping Aviva Investors, a core part of the Group, improve its profitability and contribution to Aviva.

Future cash generators are Poland, Turkey, South East Asia and China. These are attractive markets which offer growth potential. In Poland, we are the second largest life and pensions provider. Turkey has demographic and economic characteristics similar to high growth Asian markets and is a key focus for VNB growth. In Asia we are making progress with a more focused approach, concentrating on China and South East Asia.

People

In the first half of 2013 I have strengthened the management team. This is essential to the transformation of Aviva. New people have been brought in, and others have been promoted from within the business. Khor Hock Seng, David McMillan, Jason Windsor, Nick Amin, Christine Deputy and Euan Munro have been recruited, promoted or added to the Group Executive Committee. We have also made key senior appointments in Ireland, Poland and Investor Relations.

In my first six months I have been struck by the professionalism and dedication of Aviva's people. Their focus, commitment and hard work are driving Aviva's transformation.

Outlook

In summary, our performance over the first half of the year has been satisfactory. There are a number of areas that must be addressed, in particular leverage, expenses, and underperformance in some of our markets. These issues are largely within our gift to resolve. Completion of the sale of the US business is important to the Group and we confirm our previous guidance that we expect it to complete by the end of the year.

As a business it is important that we deliver for investors what we set out to do. There remains considerable value to unlock in Aviva.

Mark Wilson,
Group Chief Executive Officer

Group Chief Financial Officer's Report

Overview

Results in the six months to 30 June 2013 have been satisfactory, with operating profit from continuing operations 5% higher, driven primarily by expense reductions.

We continue to focus on improving the capital efficiency of our business through lower new business strain, more efficient back-book cash generation and improved remittances. Operating capital generation for the period was £936 million (*HY12: £906 million*), and remittances of £573 million were received in this half of the year (*HY12: £441 million*). The bulk of our capital generation comes from our large back-book of life insurance business already written. On average c.£1.1 billion of free surplus from our existing customers will be released over each of the next five years as this book runs off, in addition to contributions from general insurance and asset management, plus management actions including cost saves. This creates a stable and sustainable outlook for our capital generation.

In the period, we have taken further steps to strengthen our balance sheet and improve the predictability of future cash flows. We have reduced our internal leverage by £700 million through a combination of £300 million cash repayment and £400 million non-cash methods. Our pro forma IGD surplus and pro forma economic capital ratios are £3.7 billion and 175% respectively, the latter at the top-end of our 160-175% target range. We have increased the credit default provision in our UK commercial mortgage portfolio by £300 million, so this now stands at £1.5 billion.

Business Unit Performance

In UK life, operating profit of £438 million was £31 million lower than the prior year period. Expense reductions of £50 million were more than offset by the non-repeat of a £74 million provision release in HY12. Value of new business was 16% higher year-on-year, mostly driven by re-pricing our annuities book. This, along with a greater focus on risk products, resulted in new business margin improving significantly to 34% of annual premium equivalent (*HY12: 25%*).

Overall, performance in UK GI was solid, with operating profit of £239 million, up 5%, despite a £45 million reduction in investment return following the intercompany loan reorganisation. The COR of 96.3% (*HY12: 97.2%*) benefitted from disciplined underwriting and relatively benign weather.

In Canada, the COR of 92.4% (*HY12: 89.8%*) was impacted by the Alberta floods and operating profit reduced to £147 million as a result (*HY12: £174 million*). Canada's strong underwriting ability was demonstrated even in a period of unusually large losses. France had a 15% improvement in operating profit, mostly as a result of a shift to higher margin protection products in life. France is a stable cash generator, with a £103 million remittance to group in the first half of 2013.

Our growth markets had strong VNB progression over the period, with Turkey and Asia (excluding Malaysia and Sri Lanka) up 54% and 41% respectively, and more modest growth of 17% in Poland. The higher VNB across these markets was mainly a result of increased sales of higher margin protection products.

Capital and liquidity

Our capital ratios have remained broadly constant over the six months to 30 June 2013, largely due to the actions taken in 2012 to de-risk the balance sheet along with fairly benign market conditions. Our pro forma economic capital surplus was £7.6 billion at HY13 (*FY12: £7.1 billion*), representing a capital adequacy ratio of 175% and our pro forma regulatory surplus (IGD) was £3.7 billion (*FY12: £3.9 billion*). At present, a 50bps downward shift in the yield curve would reduce our economic capital surplus ratio to 170%, still within our targeted range of 160%-175%. We would remain within our targeted capital range should a 20% fall in equity markets or a 100bps widening of credit spreads occur.

We have recently been included on the list of nine Global Systemically Important Insurers and will work closely with the regulators to understand the implications of this. This will not have any immediate implications on the level of capital we will be required to hold. The Solvency II capital framework continues to evolve and we participate actively in these discussions.

Group centre liquidity currently stands at £1.1 billion. Disposal proceeds along with cash remittances from business units were received during the first half of the year. From this, £300 million of internal loan repayment was made along with the 2012 final dividend.

Intercompany loan

Following the restructure of Aviva Insurance Limited (AIL) announced earlier in the year, a £5.8 billion formal loan was established between AIL and Aviva Group Holdings (AGH), the parent company of many of our international subsidiaries. Since then, we have repaid £300 million of the internal loan in cash. Following the removal of AIL's guarantee of the Group's commercial paper and consequent increase in economic capital in AIL, a further £400 million of the loan was retired, bringing the balance down to £5.1 billion.

As previously announced, we intend to reduce the internal loan by a further £300 million of cash by the end of 2015. We plan on taking additional steps to reduce the loan balance by non-cash methods.

External leverage

External leverage remains broadly unchanged over the six months of 2013, with a debt to tangible equity ratio of 50% (FY12: 50%). In July 2013, we raised €650 million of hybrid debt ahead of the £0.8 billion of debt up for call in the next eight months. We remain focused on reducing our external leverage ratio to below 40% in the medium term. We anticipate using some of the proceeds from the US life disposal towards reducing our external leverage.

Asset portfolio

Aviva has a large balance sheet with exposure to approximately £265 billion of financial investments and loans. Most of these assets are held on behalf of policyholders, with no risk of investment loss to shareholders, or in participating funds where most of any potential loss is borne by policyholders. Of the c.£87 billion financial assets to which shareholders are directly exposed, the vast majority is in fixed interest bonds and loans.

De-risking of our asset portfolio has continued over the six months, albeit at a more moderate pace. We have made gross disposals of £1 billion¹ of Italian sovereign bonds, offset by market movements including FX and disposed of £35 million of Co-Operative Bank bonds prior to the announced bail-in.

In the UK, the asset portfolio backing the UK annuity business includes £14.4 billion of corporate debt securities and £12.2 billion of commercial mortgages. Excluding £4.1 billion of healthcare and Private Finance Initiative (PFI) mortgages, which have lower risk characteristics, there exists £8.1 billion of commercial mortgages to which shareholders are exposed. During the first half of the year, impairments on the mortgage portfolio increased above our long term trend and we subsequently carried out an extensive review of the portfolio. Consequently, we have increased the direct provisions against default in the mortgage portfolio by £300 million. The allowance in the liability valuation for mortgages is now £1.5 billion.

Net Asset Value

IFRS operating profits of 26p per share over the first six months more than covered the payment of the 2012 final dividend of 9p per share. This was also partly offset by the adverse movement of the pension scheme of 8p, which was mainly as a result of an increase in CPI, and the additional commercial mortgage provision which reduced our book value per share by 8p.

Net asset value ²	IFRS	MCEV
Opening NAV per share at 31 December 2012	278p	422p
Operating profit	26p	27p
Dividends	(9)p	(9)p
Investment variances	3p	9p
Commercial mortgages	(8)p	(2)p
Pension fund	(8)p	(8)p
Integration and restructuring costs, goodwill impairment and other items	(6)p	(5)p
Foreign exchange	5p	7p
Closing NAV per share at 30 June 2013	281p	441p



Pat Regan
Group Chief Financial Officer

¹ Gross of non-controlling interests, purchases and redemptions.
² Net of tax and non-controlling interests.

Notes to editors

Notes to editors

All comparators are for 6 months to 30 June 2013 unless otherwise stated.

Income and expenses of foreign entities are translated at average exchange rates while their assets and liabilities are translated at the closing rates on 30 June 2013, 30 June 2012 and 31 December 2012 respectively. The average rates employed in this announcement are 1 euro = £0.85 (6 months to 30 June 2012: 1 euro = £0.82, 12 months to 31 December 2012: 1 euro = £0.81) and US\$1 = £0.65 (6 months to 30 June 2012: 1 US\$ = £0.63, 12 months to 31 December 2012: 1 US\$ = £0.63).

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 local currency basis.

Cautionary statements:

This should be read in conjunction with the documents filed by Aviva plc (the "Company" or "Aviva") with the United States Securities and Exchange Commission ("SEC"). This announcement contains, and we may make verbal statements containing, "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", "plans", "will", "seeks", "aims", "may", "could", "outlook", "estimates" 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 presentation include, but are not limited to: the impact of ongoing difficult conditions in the global financial markets and the economy generally; the impact of various local political, regulatory and economic conditions; market developments and government actions regarding the sovereign debt crisis in Europe; the effect of credit spread volatility on the net unrealised value of the investment portfolio; the effect of losses due to defaults by counterparties, including potential sovereign debt defaults or restructurings, on the value of our investments; changes in interest rates that may cause policyholders to surrender their contracts, reduce the value of our portfolio and impact our asset and liability matching; the impact of changes in 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; a cyclical downturn of the insurance industry; 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; the impact of catastrophic events on our business activities and results of operations; the inability of reinsurers to meet obligations or unavailability of reinsurance coverage; increased competition in the UK and in other countries where we have significant operations; the effect of the European Union's "Solvency II" rules on our regulatory capital requirements; 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; risks associated with arrangements with third parties, including joint ventures; 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 a decline in any of our ratings by rating agencies on our standing among customers, broker-dealers, agents, wholesalers and other distributors of our products and services; changes to our brand and reputation; changes in government regulations or tax laws in jurisdictions where we conduct business; the inability to protect our intellectual property; the effect of undisclosed liabilities, integration issues and other risks associated with our acquisitions; and the timing impact and other uncertainties relating to acquisitions and disposals and relating to other future acquisitions, combinations or disposals within relevant industries. For a more detailed description of these risks, uncertainties and other factors, please see Item 3d, "Risk Factors", and Item 5, "Operating and Financial Review and Prospects" in Aviva's Annual Report Form 20-F as filed with the SEC on 25 March 2013. Aviva undertakes no obligation to update the forward looking statements in this announcement or any other forward-looking statements we may make. Forward-looking statements in this presentation are current only as of the date on which such statements are made.

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

Contacts

Investor contacts	Media contacts	Timings
Colin Simpson +44 (0)20 7662 8115	Nigel Prideaux +44 (0)20 7662 0215	Real time media conference call 07:15 hrs BST
David Elliot +44 (0)20 7662 8048	Andrew Reid +44 (0)20 7662 3131	Analyst presentation 08:15 hrs BST
	Sarah Swailes +44 (0)20 7662 6700	Presentation slides www.aviva.com 06.30hrs BST
		Live webcast www.avivawebcast.com/interims2013/ 08:15 hrs BST

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Key financial metrics

Cash

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IFRS Profit after tax

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IFRS profit/(loss) after tax	776	(624)	n/a

Interim dividend

	6 months 2013	6 months 2012
Interim dividend per share	5.6p	10.0p

Capital position

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Estimated IGD solvency surplus	3.7	3.9	4.2	3.8
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1 The Group adopted the amendments to IAS19 and IFRS10 during the period and the requirements of the revised standards have been applied retrospectively. See note B2 for details.

2 The economic capital surplus represents an estimated position. The capital requirement is based on Aviva's own internal assessment and capital management policies. The term 'economic capital' does not imply capital as required by regulators or other third parties.

3 The pro forma economic capital and IGD surpluses at HY13 include the impact of the US Life transaction and, for economic capital only, an increase in pension scheme risk allowance from five to ten years of stressed contributions (pro forma FY12: includes the benefit of completing the US Life, Aseval, Delta Lloyd and Malaysia transactions and, for economic capital only, an increase in pension scheme risk allowance from five to ten years of stressed contributions).

4 In preparing the MCEV information, the directors have done so in accordance with the European Insurance CFO Forum MCEV Principles with the exception of stating held for sale operations at their expected fair value, as represented by expected sale proceeds, less cost to sell.

1.i – Cash remitted to Group

The flow of sustainable cash remittances from the Group's businesses is a key financial priority. The cash remittances for HY13 from continuing operations, excluding Delta Lloyd, were £573 million (HY12: £441 million).

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
United Kingdom & Ireland life	300	150	150
United Kingdom & Ireland general insurance & health	—	115	150
France	103	52	202
Poland	83	63	70
Italy	—	—	—
Spain	17	42	68
Other Europe	6	3	3
Europe	209	160	343
Canada	63	—	136
Asia	—	1	25
Other	1	15	100
Group – continuing operations (excluding Delta Lloyd)	573	441	904
Delta Lloyd	—	29	40
Group as reported	573	470	944

The improvement in cash remitted to Group is primarily driven by increased remittances from UK Life, France and Canada. Following the restructure of the internal loan with UKGI at the start of 2013, the timing of dividend flows from this business to Group has been moved to the second half of the year.

1.ii – Operating capital generation

The active management of the generation and utilisation of capital is a primary Group focus, balancing new business investment and shareholder distribution to deliver our “Cash flow plus growth” investment thesis.

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full year 2012 £m
Operating capital generation:			
Life in-force business ¹	798	878	1,703
General insurance, fund management and other operations	306	288	534
Operating capital generated before investment in new business - continuing operations (excluding Delta Lloyd)	1,104	1,166	2,237
Capital invested in new business	(168)	(260)	(378)
Operating capital generated after investment in new business - continuing operations (excluding Delta Lloyd)	936	906	1,859
United States and Delta Lloyd	83	(15)	123
Group as reported	1,019	891	1,982

¹ The Life in-force business in FY12 excludes the negative impact from a true up relating to a prior estimate of required capital. The change in estimate of £88 million is included in MCEV note F12, but excluded from above as it does not impact the actual capital generated in 2012.

Operating capital generation comprises the following components:

- Operating free surplus emergence, including release of required capital, for the life in-force business (net of tax and non-controlling interests);
- Operating profits for the general insurance and other non-life businesses net of tax and non-controlling interests from non-covered business only, where non-covered business is that which is outside the scope of life MCEV methodology;
- Capital invested in new business. For life business this is the impact of initial and required capital on free surplus. For general insurance business this reflects the movement in required capital, which has been assumed to equal the regulatory minimum multiplied by the local management target level. Where appropriate movements in capital requirements exclude the impact of foreign exchange and other movements deemed to be non-operating in nature.
- Post deconsolidation on 6 May 2011, all Delta Lloyd business (including its life, general insurance, fund management and non insurance segments) has been included in OCG on an IFRS basis (net of taxation and non-controlling interests).
- Post classification as held for sale in Q4 2012, the United States business (including its life, fund management and non insurance segments that have been announced to be sold) is no longer managed on a MCEV basis so it has been included in OCG on an IFRS basis (net of taxation).

The amount of operating capital remitted to Group is dependent upon a number of factors including non-operating items and local regulatory requirements.

1.ii – Operating capital generation continued

The analysis of OCG by market and product and service is set out below.

6 months 2013 £m	Life OCG				Non-life OCG					
	Free surplus emergence	New business strain	Other/ manage- ment actions	Life OCG	General insurance and health ¹	Fund manage- ment ¹	Non- insurance ¹	Non-life usage ²	Non-life OCG	Total OCG
United Kingdom & Ireland life	205	17	41	263	(9)	9	(3)	1	(2)	261
United Kingdom & Ireland general insurance & health	—	—	—	—	195	—	(3)	24	216	216
Europe	369	(146)	74	297	32	—	(2)	(6)	24	321
Canada	—	—	—	—	111	—	—	(3)	108	108
Asia	46	(35)	63	74	(1)	1	(8)	(3)	(11)	63
Fund management	—	—	—	—	—	14	—	(2)	12	12
Other	—	—	—	—	(25)	—	(5)	(15)	(45)	(45)
Total continuing operations	620	(164)	178	634	303	24	(21)	(4)	302	936
United States										83
Total Group operating capital generation										1,019

Restated 6 months 2012 £m	Life OCG				Non-life OCG					
	Free surplus emergence	New business strain	Other/ manage- ment actions	Life OCG	General insurance and health ¹	Fund manage- ment ¹	Non- insurance ¹	Non-life usage ²	Non-life OCG	Total OCG
United Kingdom & Ireland life	260	(51)	153	362	1	2	2	3	8	370
United Kingdom & Ireland general insurance & health	—	—	—	—	175	—	(6)	29	198	198
Europe	344	(159)	67	252	24	—	4	(9)	19	271
Canada	—	—	—	—	129	—	—	(15)	114	114
Asia	46	(40)	5	11	(1)	—	(10)	(4)	(15)	(4)
Fund management	1	—	—	1	—	—	—	(4)	(4)	(3)
Other	2	—	—	2	14	—	(46)	(10)	(42)	(40)
Total continuing operations (excluding Delta Lloyd)	653	(250)	225	628	342	2	(56)	(10)	278	906
United States and Delta Lloyd										(15)
Total Group operating capital generation										891

Restated Full year 2012 £m	Life OCG				Non-life OCG					
	Free surplus emergence	New business strain	Other/ management actions ³	Life OCG	General insurance and health ¹	Fund manage- ment ¹	Non- insurance ¹	Non-life usage ²	Non-life OCG	Total OCG
United Kingdom & Ireland life	407	(37)	303	673	10	8	(4)	1	15	688
United Kingdom & Ireland general insurance & health	—	—	—	—	343	—	(17)	50	376	376
Europe	662	(268)	147	541	43	—	6	(19)	30	571
Canada	—	—	—	—	202	—	—	(10)	192	192
Asia	117	(84)	64	97	(1)	1	(13)	(4)	(17)	80
Fund management	3	—	—	3	—	11	—	(7)	4	7
Other	—	—	—	—	31	(2)	(84)	—	(55)	(55)
Total continuing operations (excluding Delta Lloyd)	1,189	(389)	514	1,314	628	18	(112)	11	545	1,859
United States and Delta Lloyd										123
Total Group operating capital generation										1,982

¹ Operating profit net of tax and non-controlling interests from non-covered businesses only, where non-covered business is that which is outside the scope of life MCEV methodology.

² This reflects the movement in required capital, which has been assumed to equal the regulatory minimum multiplied by the local management target level. Where appropriate movements in capital requirements exclude the impact of foreign exchange and other movements deemed to be non-operating in nature.

³ The FY12 'other/management actions' figure in Europe excludes the negative impact of a true-up relating to a prior estimate of required capital. The change in estimate of £88 million is included in MCEV Note F12, but excluded from Life OCG as it does not impact the actual capital generated in 2012.

Operating capital generation (OCG) on a continuing basis, excluding the US and Delta Lloyd, is £936 million, up 3% compared to prior year (HY12: £906 million). The increase in OCG is driven by the expense savings seen throughout the Group and by the continuing focus on managing new business volumes and value. Life OCG includes the benefit of some management actions (including a financial reinsurance transaction) but at a lower level than in the previous years. The expected free surplus emergence (shown in note 1.iii) taken with the expected contribution from new life business and non-life business, demonstrates that the current level of OCG is sustainable and underpins the future cash remittances from businesses to Group.

1.iii – Free surplus emergence**Maturity profile of undiscounted free surplus emergence equivalent embedded value cash flows****Total in-force business**

	30 June 2013 £m	31 December 2012 £m
Release of future profits and required capital		
Year 1	1,161	1,190
Year 2	1,133	1,156
Year 3	1,088	1,175
Year 4	1,114	1,168
Year 5	1,091	1,003
Year 6	1,091	977
Year 7	1,046	917
Year 8	1,038	857
Year 9	988	952
Year 10	940	952
Years 11-15	4,215	4,312
Years 16-20	3,630	3,541
Years 20+	8,857	8,335
Total net of non controlling interests¹	27,392	26,535

¹ HY13 excludes £132 million (FY12: £385 million), in respect of held for sale operations.

The table above shows the expected future emergence of profits from the existing business implicit in the equivalent embedded value calculation for life covered in-force business. The cashflows have been split for the first ten years followed by five year tranches depending on the date when the profit is expected to emerge. These profits, which arise from the release of margins in the regulatory reserves as the business runs-off over time, are expected to emerge through operating capital generation (OCG) in future years. The cashflows are based on the non-economic assumptions used in the MCEV and normalised investment returns.

For existing business, the cashflows will generally reduce over time due to lapses, maturities and other benefit payments. Each year new business will increase these profits, following the initial strain at point of sale. This table only includes the business currently in-force.

At 31 December 2012, the anticipated year 1 cashflow was £1,190 million, which includes the expected transfer from the value in force (VIF) and required capital to free surplus in the first half of 2013 of £610 million (MCEV section, note F8). The OCG expected return will also include the free surplus component of the expected return on net worth. The expected return in the OCG of £620 million (see note 1.ii) is broadly half of this total.

The total real world cashflows have increased slightly over 2013, largely reflecting the expected future cashflows from new business and the benefit of exchange rates, partly offset by the expected run-off of the existing business. Economic and other variances have had a relatively small impact during the period.

The free surplus emergence in the table above excludes any business written in the RIEESA until conditions for its release to shareholders have been met.

Operating profit: IFRS basis

2 – Operating Profit: IFRS basis

Group operating profit before tax from continuing operations, excluding Delta Lloyd: IFRS basis

For the six month period ended 30 June 2013

Continuing operations, excluding Delta Lloyd	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m
Operating profit before tax attributable to shareholders' profits			
Life business			
United Kingdom & Ireland	446	477	892
Europe	425	391	869
Asia	38	30	69
Other	1	(1)	1
Total life business (note 7.i)	910	897	1,831
General insurance and health			
United Kingdom & Ireland	259	235	502
Europe	47	45	98
Canada	147	174	277
Asia	(1)	(1)	(5)
Other	(24)	9	22
Total general insurance and health (note 7.ii)	428	462	894
Fund management			
Aviva Investors	31	14	39
United Kingdom	10	4	11
Asia	1	—	1
Total fund management	42	18	51
Other			
Other operations (note A1)	(49)	(87)	(177)
Market operating profit	1,331	1,290	2,599
Corporate centre (note A2)	(72)	(64)	(136)
Group debt costs and other interest (note A3)	(251)	(267)	(537)
Operating profit before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	1,008	959	1,926

Overall, operating profit has increased by £49 million to £1,008 million (*HY12: £959 million*), with the main movements being operating expense savings of £147 million offset by the non-recurrence of one-off items in the UK, included in the 2012 results, of £74 million.

Within the UK general insurance business, long term investment return has reduced by £45 million mainly reflecting the lower interest rate on the internal loan balance, following the restructure at the start of 2013. The impact of this is neutral at an overall Group level.

The Group adopted the amendments to IAS 19 during the period (see note B2(e) for details) and the requirements of the revised standard have been applied retrospectively in accordance with the transition provision. This has resulted in an increase in operating profit for the 6 month period ended 30 June 2012 of £74 million, with a corresponding decrease in other comprehensive income. The impact for the full year 2012 is to increase operating profit by £150 million with a corresponding decrease in other comprehensive income.

Expenses

3 – Expenses

a) Expense base

	6 months 2013 £m	6 months 2012 £m
Continuing operations		
Operating expenses	1,528	1,675
Integration and restructuring costs	164	182
Expense base	1,692	1,857

b) Operating expenses¹

	6 months 2013 £m	6 months 2012 £m
Continuing operations		
UK & Ireland life	326	378
UK & Ireland general insurance & health	418	452
Europe	333	353
Canada	196	199
Asia	40	49
Aviva Investors	136	140
Other Group activities	79	104
Operating cost base – continuing operations	1,528	1,675

¹ Operating expenses includes expenses from life, general insurance & health, fund management and other operations.

The table below shows the lines of the IFRS consolidated income statement in which operating expenses have been included:

	6 months 2013 £m	6 months 2012 £m
Claims handling costs ²	186	189
Non-commission acquisition costs ³	468	552
Other expenses	874	934
Operating cost base – continuing operations	1,528	1,675

² As reported within Net claims and benefits paid of £11,458 million (HY12: £12,290 million).

³ As reported within Fee and commission expense of £2,309 million (HY12: £2,259 million).

Overall operating expenses for the period were £1,528 million (HY12: £1,675 million), a reduction of £147 million compared with prior year. The overall 2011 base-line for the Group-wide expense reduction target is £3,366 million⁴ – if the total for FY13 is assumed to be twice the HY13 operating expenses, then £310 million of savings (out of the £400 million target) have been realised to date.

Significant cost reductions have been made in the United Kingdom and Ireland. Both the life and general insurance businesses have achieved savings by reducing headcount for both permanent staff and contractor positions, lowered levels of property spend through renegotiation of leases or exiting property and reduced consultancy spend.

The cost base of our European markets has reduced by 6%, or 9% on a constant currency basis, benefitting from lower costs in the majority of markets. The improvement has been driven by a strong focus on expense management. Other Group activities, which include Group centre costs, have improved as a result of regional head office closures in 2012, including Aviva Europe and Aviva North America.

c) Integration and restructuring costs

Integration and restructuring costs from continuing operations at HY13 were £164 million (HY12: £182 million) and mainly include expenses associated with the Group's transformation programme. Compared with the prior period, integration and restructuring costs reduced by 10% as transformation activity in Ireland's general insurance business in 2012 was not repeated and Solvency II implementation costs reduced to £44 million (HY12: £70 million), as the project moves towards completion.

⁴ Target baseline will be adjusted for any subsequent disposals not already announced.

Value of new business

4 – Value of new business by market

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Gross of tax and non-controlling interests - continuing operations			
United Kingdom	211	182	420
Ireland	1	(6)	(8)
United Kingdom & Ireland	212	176	412
France	86	62	119
Poland	21	18	35
Italy	6	14	29
Spain	13	21	56
Turkey	20	13	30
Other Europe	1	2	2
Europe	147	130	271
Asia – excluding Malaysia and Sri Lanka	41	29	55
Value of new business – pro forma basis	400	335	738
Effect of disposals (Malaysia and Sri Lanka)	1	8	8
Total	401	343	746

The Group's **value of new business**¹ (VNB) increased by 17% to £401 million (*HY12: £343 million*). The growth was primarily driven by strong performances in the UK & Ireland, France, Turkey and Asia, partially offset by reductions in Italy and Spain. However, we expect the 17% growth rate in VNB, compared with the prior year, to moderate during the second half of 2013.

Overall new business volumes reduced by 6% (on a PVNBP basis) and new business margin increased to 3.9% (*HY12: 3.1%*) (on a PVNBP basis) as businesses continued to focus on value over volume.

In the UK, VNB growth was achieved through improved margins, mainly as a result of pricing actions taken in the second half of 2012 in the UK annuity book. Volumes in the UK reduced in the period, reflecting the strong focus on improving value and capital efficiency. Ireland's VNB also improved reflecting the sale of the Ark business, which produced negative VNB in the prior period, together with some margin improvements across all product lines, particularly annuities.

In Europe improvements were largely driven by growth in France and Turkey, offset by reductions in Italy and Spain. In France, the VNB increased by 39%, driven by improved volumes across all products and a movement in product mix to more profitable protection and unit linked products. Turkey's VNB increased by 54%, due to an increase in sales of higher margin protection products and pensions (reflecting the ongoing benefit from government reforms). In Italy, lower risk free rates impacted margins and the results included a negative contribution of £8 million from the Eurovita business, which is held for sale. Excluding Eurovita, VNB for Italy was £14 million (*HY12: £16 million*). In Spain, market conditions remain difficult with VNB impacted by lower volumes, particularly for protection and unit linked products, together with an adverse mix impact due to the continuing contraction of the mortgage market.

VNB in Asia increased by 14% reflecting an increase in sales of higher margin products, including protection products in Singapore and traditional protection in China and India. Excluding Malaysia and Sri Lanka, which have both now been sold, VNB increased by 41% to £41 million (*HY12: £29 million*).

¹ The trend analysis of VNB and present value of new business premiums (PVNBP) are included in Financial supplement, section E: VNB & sales analysis.

Combined operating ratio

5 – General insurance combined operating ratio (COR)

	Net written premiums			Claims ratio ²			Commission and expense ratio ³			Combined operating ratio ⁴		
	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %
United Kingdom ¹	1,963	2,087	4,062	61.3	61.4	63.3	35.0	35.8	35.0	96.3	97.2	98.3
Ireland	146	174	326	70.3	71.9	69.7	33.7	34.6	32.6	104.0	106.5	102.3
United Kingdom & Ireland	2,109	2,261	4,388	62.0	62.3	63.8	34.9	35.7	34.8	96.9	98.0	98.6
Europe	764	726	1,295	70.5	69.8	70.2	26.5	28.1	29.2	97.0	97.9	99.4
Canada	1,126	1,081	2,176	60.8	57.9	61.0	31.6	31.9	32.4	92.4	89.8	93.4
Asia	7	11	22	94.4	70.0	68.5	25.5	34.5	37.1	119.9	104.5	105.6
Other ⁵	20	51	67									
Total	4,026	4,130	7,948	63.9	62.4	64.2	32.3	33.1	32.8	96.2	95.5	97.0

1 United Kingdom excluding Aviva Re and agencies in run-off.

2 Claims ratio: Incurred claims expressed as a percentage of net earned premiums.

3 Commission and Expense ratio: Written commissions and expenses expressed as a percentage of net written premiums.

4 Combined operating ratio: Aggregate of claims ratio and commission and expense ratio.

5 Other includes Aviva Re and agencies in run off.

Group **combined operating ratio** (COR) for the period is 96.2% with improvements in the UK & Ireland and Europe, partially offset by an adverse movement in Canada.

During June there was extreme flooding in Alberta, Canada. This 1 in 100 year event has impacted the group result at HY13 by £70 million (net of reinsurance). At the start of July 2013, there was also flooding in Toronto – the impact of this will be included in the results for the second half of 2013. Of the total impact of the Alberta floods, £32 million is included in the results for Canada and £38 million is in the results of our internal reinsurance company, Aviva Re. The impact on Group COR of this event is 1.8pp. Excluding this event, the Canadian COR was stable at 89.5% (HY12: 89.8%).

In the **UK and Ireland**, GI COR has improved by 1.1pp to 96.9% (HY12: 98.0%), reflecting an improvement across all components. In the UK, favourable movements in the claims ratio are largely driven by favourable weather experience, partly offset by some small adverse prior year development. Performance in Ireland continues to be unsatisfactory, but there has been an improvement in the commission and expense ratio as a result of management actions. The claims ratio has also improved due to good weather and favourable prior year claims experience.

Europe's GI COR of 97.0% (HY12: 97.9%), has benefitted from an improvement in the commission and expense ratio mainly reflecting the focus on expense efficiencies. This has been partly offset by a higher claims ratio largely due to a small strengthening of prior year reserves in France compared with a release at HY12. Both Poland and Italy benefitted from improved underwriting discipline and lower losses.

We continue to apply our reserving policy consistently and to focus on understanding the true cost of claims to ensure that reserves are maintained at a robust level. Prior year reserve movements will vary year to year but our business is predominantly short tail in nature and the loss development experience is generally stable. In HY13 we have had a small positive prior year development in our GI & health business, benefitting operating profit by £4 million (HY12: £37 million benefit to operating profit). This has had a minimal impact on the Group's COR.

Business unit performance

6.i – United Kingdom and Ireland Life

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group	300	150	150
Operating capital generation	261	370	688
Life Operating profit: IFRS basis	446	477	892
Expenses			
Operating expenses	326	378	736
Integration and restructuring costs	19	14	71
	345	392	807
Value of new business	212	176	412

Cash

During the period the UK Life business paid a dividend of £300 million to the Group, an increase from £150 million in 2012.

Operating Capital Generation

Operating Capital Generation (OCG) in the first half of 2013 is £261 million (*HY12: £370 million*).

Within this total, OCG generated in the UK was stable after adjusting for a prior year reinsurance transaction which benefitted the UK by c.£100 million. Changes made to the mix of business and actions taken on pricing have reduced our total new business strain, in particular for annuity business, which has contributed £33 million to OCG (*HY12: £32 million strain*).

Operating profit: IFRS basis

UK & Ireland life operating profit for HY13 was £446 million (*HY12: £477 million*), a reduction of £31 million compared with the prior period.

Within this total the UK operating profit was £438 million (*HY12: £469 million*). After adjusting for a net benefit of £74 million from non-recurring items, including the release of a longevity transaction reserve, the profit in UK Life increased by 11%. This increase was due to expense reductions, which benefitted operating profit by £50 million, and improved pricing. Ireland life operating profit was stable at £8 million (*HY12: £8 million*).

The operating profit of UK Life reflects a strong performance from our core risk businesses. Individual annuities performed strongly as we continued to focus on capital efficiency and value. In Protection an increased contribution from group protection products was offset by some weakening of the individual protection business.

In our pension and savings business the key focus is managing our existing book of business for value with selective participation in new business. Within our total funds under management, our savings business increased by 9% to £50.3 billion largely due to market movements and this book of business represents a stable source of profits.

Expenses

UK operating expenses decreased 14% to £296 million (*HY12: £346 million*). Cost reduction actions include the de-layering of management structures, distribution rationalisation and prioritisation of IT and change initiatives. UK restructuring costs were £16 million (*HY12: £10 million*), including the costs of Solvency II implementation and other project costs.

Ireland operating expenses were stable at £30 million (*HY12: £32 million*). Restructuring and integration costs were £3 million (*HY12: £4 million*).

Value of new business

VNB increased 20% to £212 million (*HY12: £176 million*). In the UK, VNB was up 16% to £211 million (*HY12: £182 million*) reflecting the focus on value through disciplined pricing, cost reduction and capital efficiency, rather than sales volume. PVNBP reduced by 18% to £4,441 million, but was more than offset by significantly increased new business margin, reflecting pricing actions and withdrawal from less profitable segments of BPA business.

In Ireland, VNB improved to £1 million (*HY12: £(6) million*) as a result of improved margins and the sale of Ark Life in March 2013.

6.ii – United Kingdom and Ireland general insurance & health

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group	—	115	150
Operating capital generation	216	198	376
Operating profit: IFRS basis	259	235	502
Expenses			
Operating expenses	418	452	826
Integration and restructuring costs	12	48	170
	430	500	996
Combined operating ratio ¹	96.9%	98.0%	98.6%

Cash

Following the inter-company loan restructure at the start of 2013, dividends from the business will be received in Q4 2013.

Operating Capital Generation

Operating Capital Generation (OCG) in the first half of 2013 was £216 million (HY12: £198 million) reflecting an increase in operating profit compared with the previous year.

Operating profit: IFRS basis

Operating profit increased to £259 million (HY12: £235 million), despite a £53 million reduction in overall investment return. The underwriting result of £85 million (HY12: £17 million) benefitted from benign weather and lower expenses as we continue to improve the efficiency of our book. These improvements have been partially offset by a £17 million reserve strengthening in UKGI (HY12: £12 million release). The reduction in investment return was primarily due to the intercompany loan restructure in UKGI.

In UK general insurance, our personal lines business continues to perform well in challenging markets and while overall commercial profitability continues to show an improvement, performance by class is mixed. We continue to monitor the impact of regulatory reforms in the UK and their implication for future claims costs and pricing.

Over the six month period, net written premiums (NWP) from UK general insurance declined 6% to £1,963 million (HY12: £2,087 million), mostly due to increased competition in UK motor, where we have exercised discipline in our underwriting and seen a £71 million reduction in NWP.

Expenses

Total expenses (including integration and restructuring costs) have fallen by £70 million to £430 million (HY12: £500 million).

UKGI operating expenses have improved by 5% to £360 million (HY12: £378 million) including the impact of a reduction in headcount, while restructuring and integration costs are modest at £1 million (HY12: £3 million).

Ireland GI and health expenses improved materially, reducing 42% to £69 million (HY12: £119 million) including restructuring and integration costs. We believe that the reduction in cost base forms a key component of our turnaround strategy and the recent appointment of new leadership will add further momentum to this process.

Combined operating ratio¹

	Claims ratio			Commission and expense ratio			Combined operating ratio		
	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %
United Kingdom & Ireland									
Personal	59.0	59.3	59.6	35.9	36.2	34.7	94.9	95.5	94.3
Commercial	65.9	66.4	69.7	33.5	35.0	34.9	99.4	101.4	104.6
Total – continuing operations	62.0	62.3	63.8	34.9	35.7	34.8	96.9	98.0	98.6

¹ General insurance business only.

The overall UK & Ireland general insurance combined operating ratio (COR) has improved to 96.9% (HY12: 98.0%).

UK general insurance COR improved to 96.3% (HY12: 97.2%) with the positive impact of lower weather-related claims, compared with HY12, partially offset by the prior-year reserve strengthening.

Market conditions in the UK for personal motor remain challenging, with increased competition during the period and uncertainty caused by the implementation of regulatory reforms - within this environment personal motor business COR has been stable at 96% (HY12: 96%). Homeowner COR has improved to 90% (HY12: 95%), reflecting good weather and our continued focus on risk selection and pricing.

Conditions in commercial lines continue to be challenging. In UK & Ireland profitability has improved with a combined operating ratio of 99.4% (HY12: 101.4%), benefitting from favourable claims experience in commercial property as a result of benign weather. This has been partly offset by a modest strengthening of prior year reserves in commercial motor.

Performance in Ireland continues to be unsatisfactory with an overall COR of 104.0% (HY12: 106.5%). Within this total there has been an improvement in the commission and expense ratio as a result of management actions. The claims ratio has also improved due to good weather and favourable prior year claims experience.

6.iii – Europe¹

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group	209	160	343
Operating capital generation	321	271	571
Operating profit: IFRS basis			
Life	425	391	869
General insurance & health	47	45	98
	472	436	967
Expenses			
Operating expenses	333	353	662
Integration and restructuring costs	7	10	27
	340	363	689
Value of new business	147	130	271
Combined operating ratio	97.0%	97.9%	99.4%

¹ Our European businesses include life and general insurance business written in France, Poland, Italy, and Turkey, life business in Spain and health business in France.

Cash

Cash remitted to group during the first half of 2013 was £209 million (*HY12: £160 million*), with increased remittances from France and Poland partly offset by a reduction from Spain, reflecting an additional dividend received from this business in 2012 together with the impact of the disposal of Aseval.

Operating capital generation

Operating capital generation (OCG) has increased by 18% to £321 million (*HY12: £271 million*) with improvements across all European markets. OCG in France increased to £174 million (*HY12: £153 million*) and Poland reported an increase of 14% to £65 million, as a result of expense savings and improved profitability.

Life operating profit: IFRS basis

Life operating profit increased 9% to £425 million (*HY12: £391 million*) despite continued challenging market conditions. In France, operating profits increased by 26% to £190 million (*HY12: £151 million*) as a result of higher volumes and increased margins. This includes the benefit of management actions to reduce the cost of guaranteed death benefits of £20 million (*HY12: £8 million*). Life operating profit in Poland improved 5% to £78 million (*HY12: £74 million*) due to lower expenses and higher assets under management. In Spain profits were 10% lower than HY12 but 11% higher when adjusted for the sale of Aseval. In Italy profits were down by 6% as HY12 benefitted from a one-off reinsurance transaction.

General insurance & health operating profit: IFRS basis

Operating profits were stable at £47 million (*HY12: £45 million*). In Italy profits improved by 78% to £16 million (*HY12: £9 million*) through pricing actions and reduced claims frequency. In Poland, profit increased 25% to £5 million (*HY12: £4 million*) benefiting from reduced claims frequency. In France, operating profits were £10 million below HY12 as reduced investment income and a lower level of reserve releases were partly offset by pricing actions and favourable weather experience.

Expenses

Operating expenses reduced by £20 million (6%) to £333 million (*HY12: £353 million*), with a stronger reduction measured in local currencies.

Value of new business

Value of new business (VNB) for Europe improved to £147 million (*HY12: £130 million*). Strong growth in France, Turkey and Poland was partly offset by adverse movements in Euroswap rates impacting with-profit and guaranteed savings products in Italy and Spain. VNB in France and Turkey increased due to higher volumes, with France also benefiting from a favourable move in product mix toward unit linked and protection products. In Spain, VNB was adversely impacted by product mix changes due, in part, to the continuing contraction of the mortgage market.

Combined operating ratio²

Europe	Claims ratio			Commission and expense ratio			Combined operating ratio		
	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %
France	71.1	65.2	66.6	24.9	27.2	28.3	96.0	92.4	94.9
Poland	62.7	64.3	61.5	31.7	37.7	37.0	94.4	102.0	98.5
Italy	68.3	76.1	73.1	27.7	25.9	26.7	96.0	102.0	99.8
Turkey	78.9	86.8	95.0	34.6	38.3	42.1	113.5	125.1	137.1
Total	70.5	69.8	70.2	26.5	28.1	29.2	97.0	97.9	99.4

² General Insurance business only.

Combined operating ratio (COR) has improved to 97.0% (*HY12: 97.9%*). In Italy COR reduced to 96.0% (*HY12: 102.0%*) reflecting underwriting and pricing actions and reduced claims costs. Poland also reduced COR to 94.4% (*HY12: 102.0%*) due to lower claims frequency and expenses. In Turkey, COR has improved against HY12 but remains unsatisfactory at 113.5% (*HY12: 125.1%*). These improvements were partly offset by an increase in COR in France to 96.0% compared with 92.4% in HY12 (HY12 benefitted from positive reserve releases).

6.iv – Canada

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group	63	—	136
Operating capital generation	108	114	192
Operating profit: IFRS basis	147	174	277
Expenses			
Operating expenses	196	199	401
Integration and restructuring costs	4	6	12
	200	205	413
Combined operating ratio	92.4%	89.8%	93.4%

Cash

During the period Canada paid an interim dividend to Group of £63 million (HY12: nil). Further dividends from Canada are expected in the second half of 2013.

Operating capital generation

Operating capital generation in the first half of 2013 was broadly stable at £108 million (HY12: £114 million) despite the impact of floods in Alberta.

Operating profit: IFRS basis

General insurance operating profit for the half-year was £147 million (HY12: £174 million), a 16% reduction compared with the prior year. This is entirely driven by the impact of the severe floods that occurred in Alberta in June 2013, which reduced operating profit within the Canadian business by £32 million (with a further adverse impact of £38 million in the results of our internal reinsurance business). Excluding this 1 in 100 year event, the underlying profit for the business was broadly in line with HY12. The impact of these floods result in a higher COR for commercial property than HY 2012, but this was partially offset by improvements in commercial liability which has benefited from rating actions and technical pricing improvements.

Business volumes have continued to increase in the first half of 2013, with net written premiums up 4% to £1,126 million (HY12: £1,081 million), driven by rating increases and growth in volumes largely across commercial lines.

Expenses

Operating expenses are £196 million (HY12: £199 million). On a constant currency basis, operating expenses have reduced by 2% reflecting the continued focus on expense management and the realisation of some cost savings initiatives. Integration and restructuring costs were marginally lower than in the prior year at £4 million (HY12: £6 million).

Combined operating ratio

	Claims ratio			Commission and expense ratio			Combined operating ratio		
	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %	6 months 2013 %	6 months 2012 %	Full Year 2012 %
Canada									
Personal	60.6	58.0	60.6	29.1	29.1	29.9	89.7	87.1	90.5
Commercial	61.3	57.7	61.7	35.6	36.6	36.4	96.9	94.3	98.1
Total	60.8	57.9	61.0	31.6	31.9	32.4	92.4	89.8	93.4

Compared to the prior year, combined operating ratio is higher at 92.4% (HY12: 89.8%), driven primarily by the adverse impact of the Alberta floods. Excluding the Alberta floods the underlying COR was 89.5%. Within this, the expense ratio improved reflecting focus on cost control, partly offset by higher contingent profit commission levels, adversely impacting the commission ratio.

6.v – Asia

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group	—	1	25
Operating capital generation	63	(4)	80
Operating profit: IFRS basis			
Life	38	30	69
General insurance & health	(1)	(1)	(5)
	37	29	64
Expenses			
Operating expenses	40	49	93
Integration and restructuring costs	3	2	3
	43	51	96
Value of new business			
Value of new business – excluding Malaysia and Sri Lanka	41	29	55
Effect of disposals (Malaysia and Sri Lanka)	1	8	8
	42	37	63
Combined operating ratio	119.9%	104.5%	105.6%

Cash

No dividends were paid to Group in the period but dividends are expected during the second half of the year.

Operating Capital Generation

Operating capital generation in the first half of 2013 was £63 million (*HY12: £(4) million*), which primarily reflects the positive impact of a reinsurance transaction in Singapore.

Operating profit: IFRS basis

Overall operating profit from Life and the general insurance and health business increased to £37 million (*HY12: £29 million*), primarily driven by improved performance in Singapore's Life business due to an improved business mix. Within this total, life business profits grew to £38 million (*HY12: £30 million*), with a £(1) million result from the non-life business (*HY12: £(1) million*).

Expenses

Overall expenses have reduced to £43 million (*HY12: £51 million*), with lower operating expenses, mainly due to the disposal of Sri Lanka, offset by a marginal increase in integration and restructuring costs reflecting the restructuring of Asia's head office.

Value of New Business

Value of new business (VNB) for the period was £42 million (*HY12: £37 million*), with the growth driven by Singapore, China and India. Singapore's VNB increased as a result of an improved business mix with strong protection sales and the success of new product lines launched earlier in the year. Despite a reduction in volumes, both India and China's sales mix shifted towards higher margin traditional protection products, contributing to an increase in VNB. Excluding disposals (Malaysia and Sri Lanka), VNB for Asia is £41 million (*HY12: £29 million*), an increase of 41% compared with the previous year.

Combined Operating Ratio

Overall COR for the Asia businesses was 119.9% (*HY12: 104.5%*), with the deterioration driven by a one-off increase in reserve margin in Singapore. Overall net written premiums for GI and Health business reduced to £54 million, reflecting the withdrawal from unprofitable health products in Singapore and the disposal of our Sri Lankan business in Q4 2012.

6.vi – Fund management

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Cash remitted to Group¹	1	15	15
Operating capital generation¹	12	(3)	7
Operating profit: IFRS basis			
Aviva Investors	31	14	39
United Kingdom	10	4	11
Asia	1	—	1
	42	18	51
Expenses¹			
Operating expenses	136	140	306
Integration and restructuring costs	15	19	33
	151	159	339

¹ Only includes Aviva Investors

Cash

During the period a dividend of £1 million was paid to Group with the majority of the dividends expected in the second half of the year.

Operating Capital Generation

Aviva Investors operating capital generation has increased compared with the same period last year primarily as a result of higher operating profits.

Operating profit: IFRS basis

Operating profit generated by Aviva Investors was £31 million (*HY12: £14 million*), an increase of £17 million compared with the prior year. This improvement was driven by higher revenues, reflecting positive market movements and performance fees, and lower costs as a result of the cost saving initiatives undertaken over the last year.

Expenses

Overall operating expenses have fallen by £4 million compared with the first half of 2012, with reductions in staff and recruitment expenditure. Restructuring costs have also fallen by £4 million due to lower transformation and Solvency II spend.

Net flows and funds under management – Aviva Investors

	Internal £m	External £m	Total £m
Aviva Investors			
Funds under management at 1 January 2013	185,027	51,309	236,336
Gross Sales	7,539	5,364	12,903
Gross claims/redemptions	(9,061)	(6,075)	(15,136)
Market movements and other	9,505	1,180	10,685
Funds under management at 30 June 2013	193,010	51,778	244,788

Aviva Investors funds under management have increased by £8.5 billion over the first half of the year. This is driven by market movements and the impact of FX movements.

While we have seen significant external sales in the half year, these have been more than offset by outflows. Sales have included strong inflows in our UK Liquidity funds, our on-going Aviva Investors business in the US, and our High Yield and Emerging Market Debt capabilities.

Within internal assets we have seen overall net outflows in our UK continuing business.

Profit drivers: IFRS basis

7.i – Life business

Life business operating profit before shareholder tax for continuing operations increased by 1% to £910 million (*HY12: £897 million*).

Total income reduced by 3% to £1,661 million (*HY12: £1,721 million*) while total expenses fell by 11% to £808 million (*HY12: £904 million*), giving an improvement in cost/income ratio to 49% (*HY12: 53%*). There was a reduction in the overall contribution from DAC and AVIF amortisation and other items and business, with an aggregate £57 million positive impact for the period from these items (*HY12: £80 million*).

In the **UK & Ireland**, life operating profit reduced by 6%. The prior period result included a £74 million net benefit from non-recurring items, including the release of a longevity transaction reserve. Excluding these items, the operating profit increased by 11%, with lower new business income more than offset by lower acquisition and administration expenses.

Life operating profit increased by 9% in **Europe**, driven by increased participating business income and lower acquisition expenses, and the positive effect of exchange rate movements.

In **Asia**, an increase in life operating profit of 27% was driven by growth in new business income in Singapore and an overall reduction in expenses.

	United Kingdom & Ireland			Europe			Asia			Total Continuing Operations		
	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m
New business income	231	272	619	106	126	267	50	47	101	387	445	987
Underwriting margin	101	123	261	159	162	339	33	31	58	293	316	658
Investment return	385	390	822	570	538	1,076	26	32	66	981	960	1,964
Total Income	717	785	1,702	835	826	1,682	109	110	225	1,661	1,721	3,609
Acquisition expenses	(171)	(230)	(451)	(152)	(168)	(317)	(46)	(51)	(100)	(369)	(449)	(868)
Administration expenses	(193)	(218)	(426)	(231)	(218)	(450)	(15)	(19)	(43)	(439)	(455)	(919)
Total Expenses	(364)	(448)	(877)	(383)	(386)	(767)	(61)	(70)	(143)	(808)	(904)	(1,787)
DAC, AVIF and other	93	140	67	(27)	(49)	(46)	(10)	(10)	(13)	56	81	8
	446	477	892	425	391	869	38	30	69	909	898	1,830
Other business ¹										1	(1)	1
Total – continuing operations										910	897	1,831

¹ Other business includes the total result for Aviva Investors Pooled Pensions and Aviva Life Reinsurance

Income: New business income and underwriting margin

	United Kingdom & Ireland		Europe		Asia		Total	
	6 months 2013	Restated 6 months 2012	6 months 2013	6 months 2012	6 months 2013	6 months 2012	6 months 2013	Restated 6 months 2012
New business income (£m)	231	272	106	126	50	47	387	445
APE (£m)	649	772	558	508	156	168	1,363	1,448
As margin on APE (%)	36%	35%	19%	25%	32%	28%	28%	31%
Underwriting margin (£m)	101	123	159	162	33	31	293	316
Analysed by:								
Expenses	23	32	41	43	17	18	81	93
Mortality and longevity	53	52	105	106	14	11	172	169
Persistency	25	39	13	13	2	2	40	54

(a) New business income

New business income reduced to £387 million (*HY12: £445 million*), due to lower sales volumes in the UK & Ireland and a reduction in the new business margin on APE in Europe.

In the UK & Ireland, while new business volumes (based on APE) reduced by 16% the margin on APE was stable at 36% (*HY12: 35%*). Increased profitability from annuity business was offset by lower protection volumes.

In Europe, while new business volume increased (driven by growth in France and Turkey), new business margin on APE reduced, mainly driven by lower interest rates in Italy. As a result, overall new business income reduced by 16%.

The net contribution from new business is the new business income less associated acquisition expenses. This net contribution increased to £18 million (*HY12: £4 million negative*).

(b) Underwriting margin

The underwriting margin reduced to £293 million (*HY12: £316 million*). The reduced margin in the UK & Ireland was driven by a lower profit in Ireland following the sale of Ark Life. In Europe, an increased mortality margin in France was primarily driven by management actions to reduce the cost of guaranteed death benefits which generated additional profits of around £20 million (*HY12: £8 million*). This positive variance was more than offset by reduced profits due to the sale of Aseval in Spain during the current period and the sale of certain smaller European businesses in 2012.

7.i – Life business continued

Income: Investment return

	United Kingdom & Ireland		Europe		Asia		Total	
	6 months 2013	Restated 6 months 2012	6 months 2013	6 months 2012	6 months 2013	6 months 2012	Restated 6 months 2012	Restated Full year 2012
Unit-linked margin (£m)	208	212	227	219	12	12	447	443
As annual management charge on average reserves (bps)	90	96	120	124	184	192	104	110
Average reserves (£bn)	46.5	44.2	37.8	35.2	1.3	1.3	85.6	80.7
Participating business (£m)	41	34	254	228	(5)	—	290	262
As bonus on average reserves (bps)	22	17	82	75	n/a	n/a	58	51
Average reserves (£bn)	37.3	40.6	61.9	60.6	1.5	1.3	100.7	102.5
Spread margin (£m)	69	66	18	22	13	14	100	102
As spread margin on average reserves (bps)	34	35	85	96	139	148	43	46
Average reserves (£bn)	40.5	37.9	4.3	4.6	1.9	1.9	46.7	44.4
Expected return on shareholder assets (£m)	67	78	71	69	6	6	144	153
Total (£m)	385	390	570	538	26	32	981	960
								1,964

(c) Unit-linked margin

The unit-linked margin was stable at £447 million (*HY12: £443 million*). The margin as a proportion of average unit-linked reserves was 104 bps (*HY12: 110 bps*), on average reserves of £86 billion (*HY12: £81 billion*). The reduced margin on reserves was driven by the UK, with an on-going shift in business mix from bonds to pensions which have lower average fund charges, and reduced charges on pensions business in Poland due to a legislative restriction.

(d) Participating business

Income from participating business increased to £290 million (*HY12: £262 million*). In the UK & Ireland, the shareholder transfer from with-profit funds increased to £41 million (*HY12: £34 million*), reflecting increases to bonus rates. In Europe, income increased to £254 million (*HY12: £228 million*), driven by higher income in France and Italy and the effect of exchange rate movements. The majority of participating business income is earned in France, where there is a fixed management charge of around 50bps on AFER business, which is the largest single component of the business. In Asia, losses were incurred on our businesses in China and Hong Kong.

(e) Spread margin

Spread business income was stable at £100 million (*HY12: £102 million*). Spread margins relate mainly to UK immediate annuity and equity release business. The spread margin in the UK & Ireland increased to £69 million (*HY12: £66 million*), reflecting growth in annuity assets under management. In Europe the spread margin reduced due to the sale of Aseval in Spain. The spread margin on average reserves was 43 bps (*HY12: 46 bps*), on average reserves of £47 billion (*HY12: £44 billion*).

(f) Expected return on shareholder assets

Expected returns reduced to £144 million (*HY12: £153 million*), representing investment income on surplus funds. The reduction in income relates mainly to the UK, reflecting lower bond yields and a greater proportion of cash assets within surplus funds.

7.i – Life business continued

Expenses

	United Kingdom & Ireland		Europe		Asia		Total	
	6 months 2013	Restated 6 months 2012	6 months 2013	6 months 2012	6 months 2013	6 months 2012	Restated 6 months 2012	Restated Full year 2012
Acquisition expenses (£m)	(171)	(230)	(152)	(168)	(46)	(51)	(369)	(449)
APE (£m)	649	772	558	508	156	168	1,363	1,448
As acquisition expense ratio on APE (%)	26%	30%	27%	33%	29%	31%	27%	32%
Administration expenses (£m)	(193)	(218)	(231)	(218)	(15)	(19)	(439)	(455)
As existing business expense ratio on average reserves (bps)	31	36	44	43	62	85	38	40
Average reserves (£bn)	124.3	122.7	104.0	100.4	4.7	4.5	233.0	227.6

(g) Acquisition expenses

Acquisition expenses reduced to £369 million (*HY12: £449 million*), driven by lower acquisition costs in the UK and Europe reflecting the focus on cost efficiency and the impact of lower new business volumes. In the UK, commission payments reduced due to lower protection volumes and the absence of commission on post-RDR new savings business. The overall group-wide ratio of acquisition expenses to APE was 27% (*HY12: 31%*).

(h) Administration expenses

Administration expenses reduced to £439 million (*HY12: £455 million*), driven by cost efficiencies in the UK & Ireland. The expense ratio was 38 bps (*HY12: 40 bps*) on average reserves of £233 billion (*HY12: £228 billion*). The overall reduction in life business acquisition and administration expenses was £96 million.

(i) DAC, AVIF and other

DAC, AVIF and other items amounted to an overall positive contribution of £57 million (*HY12: £80 million*). This includes a profit of £1 million (*HY12: £1 million loss*) in respect of minor operations reported under Other business. A reduction in the positive contribution from other items was partly offset by lower DAC and AVIF amortisation charges. In the UK, the prior period included a £74 million benefit from the release of a £90 million annuity longevity transaction reserve no longer required, offset by a £16 million adverse impact from capital management actions.

7.ii – General insurance and health

	Underwriting result			Longer-term investment return			Operating profit ¹		
	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m	6 months 2013 £m	Restated ⁴ 6 months 2012 £m	Restated ⁴ Full Year 2012 £m
General insurance									
United Kingdom & Ireland ^{1,3}	77	17	42	173	224	458	248	230	480
Europe	8	2	9	36	44	81	44	46	90
Canada ¹	82	105	139	69	73	146	147	174	277
Asia	(1)	—	(2)	—	1	2	(1)	1	—
Other ²	(27)	3	12	3	6	10	(24)	9	22
	139	127	200	281	348	697	414	460	869
Health insurance									
United Kingdom & Ireland	8	—	12	3	5	10	11	5	22
Europe	3	(2)	8	—	1	—	3	(1)	8
Asia	—	(2)	(6)	—	—	1	—	(2)	(5)
	11	(4)	14	3	6	11	14	2	25
Total	150	123	214	284	354	708	428	462	894

1 Continuing operating profit also includes an unfavourable impact of £6 million resulting from a combination of unwind of discount and pension scheme net finance costs (HY12: £15 million). £2 million unfavourable impact relates to the UK & Ireland (HY12: £11 million), £4 million unfavourable impact relates to Canada (HY12: £4 million).

2 Other includes Aviva Re and agencies in run-off.

3 In the United Kingdom & Ireland, longer-term investment return of £173 million (HY12: £224 million) has reduced mainly reflecting the change in the intercompany loan.

4 Canada restated for revised IAS19.

	United Kingdom & Ireland			Europe			Canada		
	6 months 2013 %	6 months 2012 %	Full year 2012 %	6 months 2013 %	6 months 2012 %	Full year 2012 %	6 months 2013 %	6 months 2012 %	Full year 2012 %
Claims ratio									
Personal	59.0	59.3	59.6	73.8	72.0	74.7	60.6	58.0	60.6
Commercial	65.9	66.4	69.7	64.5	65.7	61.4	61.3	57.7	61.7
Total	62.0	62.3	63.8	70.5	69.8	70.2	60.8	57.9	61.0
Commission and expense ratio									
Personal	35.9	36.2	34.7	26.6	28.0	28.9	29.1	29.1	29.9
Commercial	33.5	35.0	34.9	26.4	28.2	29.8	35.6	36.6	36.4
Total	34.9	35.7	34.8	26.5	28.1	29.2	31.6	31.9	32.4
Combined operating ratio									
Personal	94.9	95.5	94.3	100.4	100.0	103.6	89.7	87.1	90.5
Commercial	99.4	101.4	104.6	90.9	93.9	91.2	96.9	94.3	98.1
Combined operating ratio total	96.9	98.0	98.6	97.0	97.9	99.4	92.4	89.8	93.4

General insurance and health operating profit

General insurance and health underwriting result has improved to £150 million (HY12: £123 million) with an increase in the UK offset by a reduction in Canada, as a result of the Alberta floods in June 2013. Long term investment return has reduced by £70 million to £284 million (HY12: £354 million), partly as a result of lower returns within the UKGI business (reduction of £45 million compared to HY12) mainly driven by reduced income on the internal loan balance and lower reinvestment rates.

7.iii – Net flows

	Restated ¹ Managed assets at 1 January 2013 £m	Premiums and deposits, net of reinsurance £m	Claims and redemptions, net of reinsurance £m	Net flows ² £m	Effect of disposals, market and other movements £m	Managed assets at 30 June 2013 £m
Life business – continuing operations						
UK – non-profit	80,499	2,828	(2,646)	182	644	81,325
Ireland	8,781	227	(478)	(251)	(2,601)	5,929
United Kingdom & Ireland (excluding UK with-profits)	89,280	3,055	(3,124)	(69)	(1,957)	87,254
Europe	94,874	4,420	(4,546)	(126)	3,890	98,638
Asia	2,893	234	(219)	15	64	2,972
Other	1,893	13	(87)	(74)	60	1,879
UK – with-profits	188,940	7,722	(7,976)	(254)	2,057	190,743
	42,534					40,961
Total life business – continuing operations	231,474					231,704

¹ Restated for the impact of IFRS10 – see note B2 for details. Managed assets reflect IFRS investments, loans, investment property and cash and cash equivalents.

² Life business net flows in the table above are net of reinsurance and exclude flows related to UK equity release products.

United Kingdom & Ireland (excluding UK with-profits)

During the first half of 2013, net inflows in UK Life (non-profit) were £182 million. Whilst volumes in the UK reduced in the period, reflecting the strong focus towards improving value and capital efficiency, there were also lower claims and redemptions compared to HY12. In Ireland, net outflows were £251 million, with the fall in managed assets at HY13 reflecting the sale of Ark Life in March 2013.

Europe

Net outflows were £126 million, reflecting increased volumes and lower redemptions in France which were more than offset by net outflows in Italy and Spain. Other movements include favourable market and foreign exchange movements (driven by the strengthening of the euro against the sterling), partly offset by the effect of the disposal of Aseval, Russia and Romania Pensions.

Asia and other

Net flows in Asia were stable during the first half of 2013. Other business net outflows of £74 million mainly relates to Aviva Investors' Pooled Pensions business.

Capital & assets summary

8.i – Summary of assets

The Group asset portfolio is invested to generate competitive investment returns for both policyholders and shareholders whilst remaining within the Group's appetite for market and credit risk.

The Group has a low appetite for interest rate risk and currency risk which means that the asset portfolios are well matched by duration and currency to the liabilities they cover. The Group also runs a low level of liquidity risk which results in a high proportion of income generating assets and a preference for more liquid assets where there is the potential need to realise those assets before maturity.

The Group seeks to diversify its asset portfolio in order to reduce risk and provide more attractive risk-adjusted returns. In order to achieve this there is a comprehensive risk limit framework in place. There is an allowance for diversification in our economic capital model, actions have been taken to reduce our exposure to the Eurozone periphery, and we are broadening the investment portfolio in individual businesses.

Asset allocation decisions are taken at legal entity level and in many cases by fund within a legal entity in order to reflect the nature of the liabilities, customer expectations, the local accounting and regulatory treatment, and any local constraints. These asset allocation decisions are made in accordance with a Group-wide framework that takes into account consensus investment views across the Group, prioritised Group objectives and metrics and Group risk limits and constraints. This framework is overseen by the Group ALCO (Asset Liability Committee) and facilitates a consistent approach to asset allocation across the business units in line with Group risk appetite and shareholder objectives.

The asset allocation as at 30 June 2013 across the Group, split according to the type of liability the assets are covering, is shown in the table below. Further information on these assets is given in the analysis of assets section.

30 June 2013 £m	Shareholder business assets			Participating fund assets			Total assets analysed	Less assets of operation classified as held for sale	Carrying value in the statement of financial position
	General insurance & health & other ¹	Annuity and non-profit	Policyholder (unit linked) assets	UK style with profits	Continental European-style participating funds				
Debt securities									
Government bonds	6,224	9,845	6,536	15,170	27,643	65,418	(3,860)	61,558	
Corporate bonds	3,662	36,486	6,165	9,389	28,498	84,200	(25,341)	58,859	
Other	212	5,376	2,079	612	3,571	11,850	(3,878)	7,972	
	10,098	51,707	14,780	25,171	59,712	161,468	(33,079)	128,389	
Loans									
Mortgage loans	249	20,684	—	923	169	22,025	(3,345)	18,680	
Other loans	190	527	461	3,746	1,060	5,984	(439)	5,545	
	439	21,211	461	4,669	1,229	28,009	(3,784)	24,225	
Equity securities	547	548	22,442	8,445	2,689	34,671	(107)	34,564	
Investment property	154	105	4,060	4,154	1,365	9,838	(6)	9,832	
Other investments	200	2,080	25,578	2,201	1,356	31,415	(1,698)	29,717	
Total as at 30 June 2013	11,438	75,651	67,321	44,640	66,351	265,401	(38,674)	226,727	
Total as at 31 December 2012 (Restated)	11,508	75,894	67,417	45,625	62,879	263,323	(39,830)	223,493	

1. Of the £11.4 billion of assets 3% relates to other shareholder business assets.

There is an internal loan between Aviva Insurance Limited (AIL) and Aviva Group Holdings Limited (AGH) that has a net value of zero at a consolidated level.

General insurance and health

All the investment risk is borne by shareholders and the portfolio held to cover these liabilities contains a high proportion of fixed and variable income securities, of which 88% are rated A or above. The assets are relatively short duration reflecting the short average duration of the liabilities. Liquidity, interest rate and FX risks are maintained at a low level.

Annuity and other non-profit

All the investment risk is borne by shareholders. The annuity liabilities have a long duration but are also illiquid as customers cannot surrender their policies. The assets are chosen to provide stable income with a good cash flow, FX and interest rate match to the liabilities. We are able to invest part of the portfolio in less liquid assets in order to improve risk-adjusted returns given the illiquid nature of the liabilities. The asset portfolio is principally comprised of long maturity bonds and loans including a material book of commercial mortgage loans. The bond portfolios have performed well in the context of recent increases in interest rates. As at 30 June 2013, unrealised losses and impairments on the bond portfolio of £51.7 billion amounted to £1.6 billion or 3% of the portfolio. The equivalent figure for 31 December 2012 was 1%. Unrealised gains on the portfolio were £5 billion as at 30 June 2013 or 10% of the portfolio. The equivalent unrealised gains figure for 31 December 2012 was 12%. The other non-profit business assets are a smaller proportion of this portfolio and are generally shorter in duration and have a high proportion invested in fixed income.

8.i – Summary of assets continued

The current asset value of the commercial mortgage portfolio (including Healthcare and PFI mortgages) backing the UK Annuity book is £12.2 billion. While these commercial mortgages are held at fair value on the asset side of the statement of financial position, we also carry an allowance against the risk of default on our riskier mortgages of £1.5 billion (*FY12: £1.2 billion, including the implicit reinvestment margin of £0.2 billion*). This includes a net increase of £0.3 billion and explicit recognition of the £0.2 billion margin previously held implicitly. This provision increases the liability value through a reduction in the anticipated yield. The valuation allowance (including supplementary allowances) for commercial mortgages, including Healthcare and PFI mortgages of £1.5 billion equates to 128bps at 30 June 2013 (*FY12: 89bps*). Further detail on this portfolio is shown in section D3.2.

Policyholder assets

These assets are invested in line with the fund choices made by our unit-linked policyholders and the investment risk is borne by the policyholder. This results in a high allocation to growth assets such as equity and property. Aviva's shareholder exposure to these assets arises from the fact that the income we receive is a proportion of the assets under management.

UK style with profits (WP)

UK style with profit funds hold relatively long term contracts with policyholders participating in pooled investment performance subject to some minimum guarantees. Smoothed returns are used to declare bonuses to policyholders which increase the level of the guarantees through time. The part of the portfolio to which policyholder bonuses are linked is invested in line with their expectations and includes growth assets such as equity and property as well as fixed income. The remainder of the portfolio is invested to mitigate the resultant shareholder risk. This leads us to an overall investment portfolio that holds a higher proportion of growth assets (such as equity and property) than our other business lines although there are still material allocations to fixed income assets.

Continental European style participating funds

Continental European style participating funds hold relatively long term contracts with policyholders participating in pooled investment performance subject to some minimum guarantees. Smoothed returns are used to declare bonuses to policyholders which increase the level of the guarantees through time. There is less discretion in how guarantees increase through time compared to the UK style equivalent funds and more of the bonus accrues each year rather than being allocated at maturity. The investment portfolio holds a higher proportion of fixed income assets than the UK style equivalent. Fixed income assets also give rise to less volatility on the local statutory balance sheet than growth assets.

In total we have made gross disposals¹ of Italian sovereign debt of £1.0 billion this year from our shareholder and participating funds, the majority of which was from the Continental European style participating funds. After taking into account market movements and new business, the value of our net direct shareholder and participating fund holdings (net of NCI) in Italian sovereign debt is now £4.9 billion (*FY12: £4.9 billion*). Of the £4.9 billion of Italian sovereign debt (net of NCI) 73% is held in Italy.

8.ii – External leverage

	30 June 2013 £m	31 December 2012 £m
Group capital		
Subordinated debt	4,435	4,337
External debt	1,026	802
DCI, fixed rate tier 1 notes and preference shares	1,832	1,832
External debt and preference shares	7,293	6,971
Total tangible capital employed ²	14,575	13,976
Tangible debt leverage	50%	50%

² Tangible capital employed is total IFRS equity (including DCI, fixed rate Tier 1 Rate Notes, preference shares and non-controlling interests) and non equity items such as core structural borrowings.

At HY13 the tangible debt leverage ratio was 50% (*FY12: 50%*) as a short term increase in group debt was offset by an increase in tangible capital employed.

8.iii – Net asset value

At the end of HY13, IFRS net asset value per share was 281 pence (*FY12: 278 pence*). This movement was driven by operating profits principally offset by integration and restructuring costs, strengthening of the default provision in relation to UK life commercial mortgages, payment of the final 2012 dividend to shareholders and remeasurements on pension schemes.

Total IFRS investment return variances were flat. For continuing operations, IFRS investment return variances were £281 million adverse. In the life business, investment return variances were neutral, with narrowing credit spreads on government and corporate bonds in France, Italy and Spain offset by the credit default experience and subsequent default provision strengthening in the UK Life business of £300 million. There were adverse investment variances on general insurance and other business of £279 million, primarily reflecting an increase in gilt yields in the UK, France and Canada.

The adverse movement on the group's staff pension schemes of £229 million post tax is principally due to the main UK staff pension scheme where the surplus has decreased over the period largely as a result of an increase in long-term inflation rates partly offset by an increase in long term AA corporate bond yield. These adverse changes were slightly mitigated by improvements to the scheme deficits in the Irish and Canadian pension schemes.

IFRS	30 June 2013 £m	pence per share ²	Restated 31 December 2012 £m	pence per share ²
Equity attributable to shareholders of Aviva plc at 1 January¹	8,204	278p	12,643	435p
Operating profit – continuing operations	1,008	35p	2,038	70p
Operating profit – discontinued operations	125	4p	239	8p
Investment return variances and economic assumption changes on life and non life business	(2)	—	(815)	(28)p
Profit/(loss) on the disposal and remeasurements of subsidiaries and associates	271	9p	(2,523)	(86)p
Goodwill impairment and amortisation of intangibles	(126)	(4)p	(1,099)	(37)p
Integration and restructuring costs	(166)	(6)p	(468)	(16)p
Tax on operating profit and on other activities	(334)	(11)p	(306)	(10)p
Non-controlling interests	(83)	(3)p	(168)	(6)p
Profit after tax attributable to shareholders of Aviva plc	693	24p	(3,102)	(105)p
AFS securities (fair value) & other reserve movements	(271)	(9)p	323	11p
Ordinary dividends net of scrip	(264)	(9)p	(630)	(21)p
Direct capital instruments and fixed rate tier 1 notes interest and preference share dividend	(22)	(1)p	(72)	(2)p
Foreign exchange rate movements	139	5p	(184)	(6)p
Remeasurements of pension schemes	(229)	(8)p	(792)	(27)p
Other net equity movements ³	26	1p	18	(7)p
Equity attributable to shareholders of Aviva plc at 30 June / 31 December¹	8,276	281p	8,204	278p

¹ Excluding preference shares

² Number of shares as at 30 June 2013: 2,947 million (31 December 2012: 2,946 million).

³ Other net equity movements per share includes the dilution effect of the increase in number of shares during the period.

MCEV net asset value per share increased to 441 pence (*FY12: 422 pence*). This movement has been principally driven by operating profits and positive investment variances offset by integration and restructuring costs, payment of the final 2012 dividend to shareholders and remeasurements on pension schemes.

MCEV investment return variances of £555 million were primarily generated by the group's life businesses, which contributed £834 million, offset by the adverse investment return variances in the non life businesses of £279 million. The life investment return variances were largely generated by narrowing credit spreads on corporate bonds in the UK and Spain together with narrowing government bond spreads in Italy and Spain and changes in the prospective UK tax rate.

MCEV ⁴	30 June 2013 £m	pence per share ²	Restated 31 December 2012 £m	pence per share ²
Equity attributable to shareholders of Aviva plc at 1 January¹	12,434	422p	12,829	441p
Operating profit – continuing operations	1,287	46p	2,393	82p
Operating profit – discontinued operations	125	4p	(390)	(13)p
Investment return variances and economic assumption changes on life and non life business	555	19p	1,358	46p
Profit on the disposal and remeasurements of subsidiaries and associates	278	9p	1,094	37p
Goodwill impairment and amortisation of intangibles	(138)	(5)p	(1,143)	(39)p
Integration and restructuring costs	(165)	(6)p	(467)	(16)p
Exceptional items	—	—	51	2p
Tax on operating profit and on other activities	(582)	(20)p	(1,021)	(35)p
Non-controlling interests	(282)	(10)p	(855)	(29)p
Profit after tax attributable to shareholders of Aviva plc	1,078	37p	1,020	35p
AFS securities (fair value) & other reserve movements	(235)	(8)p	119	5p
Ordinary dividends net of scrip	(264)	(9)p	(630)	(21)p
Direct capital instruments and fixed rate tier 1 notes interest and preference share dividend	(22)	(1)p	(72)	(2)p
Foreign exchange rate movements	211	7p	(58)	(2)p
Remeasurements of pension schemes	(229)	(8)p	(792)	(27)p
Other net equity movements ³	26	1p	18	(7)p
Equity attributable to shareholders of Aviva plc at 30 June / 31 December¹	12,999	441p	12,434	422p

¹ Excluding preference shares

² Number of shares as at 30 June 2013: 2,947 million (31 December 2012: 2,946 million).

³ Other net equity movements per share includes the dilution effect of the increase in number of shares during the period.

⁴ In preparing the MCEV information, the directors have done so in accordance with the European Insurance CFO Forum MCEV Principles with the exception of stating held for sale operations at their expected fair value, as represented by expected sale proceeds, less cost to sell.

8.iv – Return on equity

Return on equity shareholder funds is calculated as operating return (IFRS basis) net of tax expressed as a percentage of opening shareholders equity. This has increased to 17.0% (FY12: 11.2%) for HY13, reflecting the impact of the significant asset write downs experienced in 2012 which adversely impacted closing shareholders equity for that year.

	6 months 2013 %	Restated Full Year 2012 %
United Kingdom & Ireland life	12.9%	15.9%
United Kingdom & Ireland general insurance and health	8.4%	9.5%
Europe	11.0%	12.4%
Canada	21.0%	19.8%
Asia	8.0%	6.1%
Fund management	26.7%	19.5%
Corporate and Other Business	n/a	n/a
Return on total capital employed (excluding Delta Lloyd and United States)	10.3%	10.0%
Delta Lloyd	—	10.8%
United States	55.6%	5.1%
Return on total capital employed	11.3%	9.3%
Subordinated debt	5.3%	4.9%
External debt	2.0%	2.4%
Return on total equity	14.3%	10.9%
Less: Non-controlling interests	11.8%	12.0%
Direct capital instruments and fixed rate tier 1 notes	1.9%	5.6%
Preference capital	9.0%	8.5%
Return on equity shareholders' funds	17.0%	11.2%

8.v – European Insurance Groups Directive (IGD)

	UK life funds £bn	Other business £bn	30 June 2013 £bn	31 December 2012 £bn
Insurance Groups Directive (IGD) capital resources	4.7	9.8	14.5	14.4
Less: capital resource requirement	(4.7)	(5.6)	(10.3)	(10.6)
Insurance Group Directive (IGD) excess solvency	—	4.2	4.2	3.8
			1.8	1.7
Cover over EU minimum (calculated excluding UK life funds)			times	times

The EU Insurance Groups Directive (IGD) regulatory capital solvency surplus has increased by £0.4 billion since FY12 to £4.2 billion. On a pro forma basis the estimated IGD solvency surplus at 30 June 2013 is £3.7 billion. The pro forma 30 June 2013 position includes the impact of the announced disposal of the Aviva US Life and Annuities business and related asset management operations classified as held for sale in the Group IFRS balance sheet.

The key movements over the period are set out in the following table:

	£bn
IGD solvency surplus at 31 December 2012	3.8
Operating profits net of other income and expenses	0.6
Dividends and appropriations	(0.3)
Market movements including foreign exchange ¹	(0.2)
Pension scheme funding	(0.1)
Disposals	0.6
Other regulatory adjustments	(0.2)
Estimated IGD solvency surplus at 30 June 2013	4.2
Pro forma IGD solvency surplus at 30 June 2013	3.7

¹ Market movements include the impact of equity, credit spread, interest rate and foreign exchange movements net of the effect of hedging instruments.

Group IGD sensitivity

	30 June 2013 £bn	Equities down 10%	Interest rates up 1%
Sensitivities on pro forma IGD ¹	3.7	(0.1)	(0.8)

¹ The impact of sensitivities on the pro forma position includes the announced disposal of the Aviva US Life and Annuities business and related asset management operations.

The Group proactively manages its balance sheet risk through monitoring, stress analysis and our hedging programme.

The Group's pro forma IGD surplus is resilient to global equity market falls or a 1% global interest rate rise. The Group's pro forma IGD surplus would be approximately £3.3 billion in the event of a 40% fall in equity markets from the 30 June 2013 position reflecting the hedging that the Group currently has in place.

The impact of a 1% rise in global interest rates is calculated with reference to the regulatory value of debt securities in continental Europe being capped to local minimum capital requirements in participating funds. This provides the Group's pro forma IGD surplus protection from immediate market losses on debt securities.

8.vi – Economic capital

The estimated economic capital surplus represents the excess of Available Economic Capital over Required Economic Capital. Available Economic Capital is based on MCEV net assets, adjusted for items to convert to an economic basis. Required economic capital is based on Aviva's own internal assessment and capital management policies. The term 'economic capital' does not imply capital as required by regulators or other third parties.

Summary of estimated economic capital position

	6 months 2013 £bn	Full year 2012 £bn
Available economic capital	17.7	16.6
Standalone required economic capital	(17.6)	(18.1)
Diversification benefit	7.0	6.8
Diversified required economic capital	(10.6)	(11.3)
Estimated economic capital position at 30 June/31 December	7.1	5.3
Cover Ratio	167%	147%
Pro forma impacts	0.5	1.8
Estimated pro forma economic capital position at 30 June/31 December	7.6	7.1
Pro forma cover ratio	175%	172%

Analysis of change in economic capital

	6 months 2013 £bn	Full Year 2012 £bn
Economic capital surplus position at 1 January	5.3	3.6
MCEV operating earnings	0.7	0.9
Economic variances	0.5	0.7
Other non-operating items	(0.1)	(0.6)
Dividend and appropriations, and shares issued in lieu of dividends	(0.3)	(0.7)
Net impact of fixed rate note issuance/call	—	0.2
Available capital benefits from Delta Lloyd, Aseval & other disposals	0.4	—
Favourable movements in US	0.6	—
UK increase in commercial mortgage default allowance	(0.3)	—
Other	(0.4)	0.4
Change in available economic capital	1.1	0.9
Impact of trading operations and other	0.5	0.4
Impact of changes in Group hedging	(0.1)	0.2
Capital requirement benefits from Delta Lloyd, Aseval & disposals	0.3	0.2
Change in diversified required economic capital	0.7	0.8
Estimated economic capital surplus position at 30 June/31 December	7.1	5.3
Pro forma impacts	0.5	1.8
Estimated pro forma economic capital surplus position at 30 June/31 December	7.6	7.1

The estimated economic capital position has increased by £1.8 billion to £7.1 billion at 30 June 2013 with a corresponding increase in the cover ratio from 147% to 167%. The cover ratio is now within the Group's external target of between 160% and 175%. The improvement during the period has been driven by an increase in available economic capital (reflecting underlying profits, favourable market movements, the sale completion of Delta Lloyd, Aseval and other disposals, partly offset by payment of the final FY12 dividend and the adverse impact of the increase in the UK commercial mortgage default allowance) and a reduction in required capital (reflecting primarily the capital requirement benefits from the above disposals).

The pro forma position includes the benefit of the US transaction (announced in December 2012, which is expected to complete during the second half of the year) and the impact of strengthening pension schemes from a 5 year to a 10 year stressed contribution basis. The net impact of these increases the estimated economic capital surplus to £7.6 billion with a cover ratio of 175%. The reduction in pro forma impacts relative to FY12 mainly reflects the sale completion of Aseval, Delta Lloyd and Malaysia during the period.

8.vi – Economic capital continued**Summary analysis of diversified required economic capital**

	6 months 2013 £bn	Full year 2012 £bn
Credit risk ¹	2.3	2.3
Equity risk ²	1.9	1.7
Interest rate risk ³	0.1	0.1
Other market risk ⁴	1.6	1.5
Life insurance risk ⁵	1.0	1.0
General insurance risk ⁶	0.8	0.9
Other risk ⁷	2.5	2.4
Total (HY13 pro forma basis)	10.2	9.9
Total (HY13 base results)	10.6	11.3

1 Capital held in respect of credit risk recognises the Group's shareholder exposure to changes in the market value of assets and defaults. Assets captured within this category include corporate bonds and non-domestic sovereigns. A range of specific stresses are applied reflecting the difference in assumed risk relative to the investment grade and duration.

2 Capital held in respect of equity risk recognises the Group's shareholder exposure to changes in the market value of assets. The increase in equity risk during the period primarily reflects increases in equity values during the first six months of 2013.

3 Capital held in respect of interest rate risk recognises the Group's shareholder exposure to changes in the market value of assets. A range of specific stresses are applied reflecting the difference in assumed risk relative to investment grade and duration.

4 Capital held in respect of other market risk recognises the Group's shareholder exposure to changes in the market value of commercial mortgages and property, but also captures risk in association with inflation and foreign exchange.

5 Capital held in respect of life insurance risk recognises the Group's shareholder exposure to life insurance specific risks, such as longevity and lapse.

6 Capital held in respect of general insurance risk recognises the Group's shareholder exposure to general insurance specific risks, such as claims volatility and catastrophe.

7 Capital held in respect of other risk recognises the Group's shareholder exposure to specific risks unique to particular business units and other items.

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Income & expenses

Reconciliation of Group operating profit to profit/(loss) after tax – IFRS basis

For the six month period ended 30 June 2013

	6 months 2013 £m		Restated ¹ 6 months 2012 £m		Restated ¹ Full Year 2012 £m	
	Continuing Operations	Discontinued Operations ²	Total	Continuing Operations	Discontinued Operations ²	Total
Operating profit before tax attributable to shareholders' profits						
Life business						
United Kingdom & Ireland	446	—	446	477	—	477
Europe	425	—	425	391	—	391
Asia	38	—	38	30	—	30
Other	1	111	112	(1)	113	112
Total life business	910	111	1,021	897	113	1,010
General insurance and health						
United Kingdom & Ireland	259	—	259	235	—	235
Europe	47	—	47	45	—	45
Canada	147	—	147	174	—	174
Asia	(1)	—	(1)	(1)	—	(1)
Other	(24)	—	(24)	9	—	9
Total general insurance and health	428	—	428	462	—	462
Fund management						
Aviva Investors	31	22	53	14	20	34
United Kingdom	10	—	10	4	—	4
Asia	1	—	1	—	—	—
Total fund management	42	22	64	18	20	38
Other						
Other operations (note A1)	(49)	(2)	(51)	(87)	(2)	(89)
Market operating profit	1,331	131	1,462	1,290	131	1,421
Corporate centre (note A2)	(72)	—	(72)	(64)	—	(64)
Group debt costs and other interest (note A3)	(251)	(6)	(257)	(267)	(7)	(274)
Operating profit before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	1,008	125	1,133	959	124	1,083
Share of operating profit (before tax) of Delta Lloyd as an associate (note A10)	—	—	—	112	—	112
Operating profit before tax attributable to shareholders' profits	1,008	125	1,133	1,071	124	1,195
Integration and restructuring costs	(164)	(2)	(166)	(182)	(4)	(186)
Operating profit before tax attributable to shareholders' profits after integration and restructuring costs	844	123	967	889	120	1,009
Adjusted for the following:						
Investment return variances and economic assumption changes on life business (note A4)	(2)	279	277	(305)	93	(212)
Short-term fluctuation in return on investments on non-life business (note A5)	(306)	—	(306)	31	—	31
Economic assumption changes on general insurance and health business (note A6)	27	—	27	(18)	—	(18)
Impairment of goodwill, associates and joint ventures and other amounts expensed (note A7)	(77)	—	(77)	184	(787)	(603)
Amortisation and impairment of intangibles Profit/(loss) on the disposal and remeasurement of subsidiaries and associates (note A8)	(43)	(6)	(49)	(47)	(117)	(164)
Exceptional items (note A9)	180	91	271	(30)	—	(30)
Non-operating items before tax (excluding Delta Lloyd as an associate)	(221)	364	143	(185)	(811)	(996)
Share of Delta Lloyd's non-operating items (before tax) as an associate (note A10)	—	—	—	(523)	—	(523)
Non-operating items before tax	(221)	364	143	(708)	(811)	(1,519)
Share of Delta Lloyd's tax expense, as an associate (note A10)	—	—	—	107	—	107
Profit/(loss) before tax attributable to shareholders' profits	623	487	1,110	288	(691)	(403)
Tax on operating profit	(296)	(23)	(319)	(287)	(46)	(333)
Tax on other activities	79	(94)	(15)	102	10	112
Profit/(loss) for the period	406	370	776	103	(727)	(624)

¹ Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative periods in these financial statements. This has led to an increase in profit before tax of £150 million for FY12 and £74 million for HY12 with a corresponding decrease in other comprehensive income.

² Discontinued operations represents the results of the US Life and related internal asset management businesses (US Life).

Other Group Operating Profit Items

A1 – Other operations

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m
United Kingdom & Ireland life ¹	(19)	(2)	(14)
United Kingdom & Ireland general insurance	(1)	(10)	(6)
Europe	(2)	(3)	(13)
Asia	(6)	(9)	(12)
Other Group operations ²	(21)	(63)	(132)
Total – continuing operations	(49)	(87)	(177)
Total – discontinued operations	(2)	(2)	(4)
Total	(51)	(89)	(181)

1 Includes net finance charge relating to the Irish pension scheme.

2 Other Group operations include Group and head office costs.

A2 – Corporate centre

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Project spend	(11)	(9)	(23)
Central spend and share award costs	(61)	(55)	(113)
Total	(72)	(64)	(136)

A3 – Group debt costs and other interest

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m
External debt			
Subordinated debt	(148)	(146)	(294)
Other	(12)	(12)	(23)
Total external debt	(160)	(158)	(317)
Internal lending arrangements	(119)	(151)	(307)
Net finance income on main UK pension scheme	28	42	87
Total – continuing operations	(251)	(267)	(537)
Total – discontinued operations	(6)	(7)	(12)
Total	(257)	(274)	(549)

Non-operating profit items

A4 – Life Business: Investment return variances and economic assumption changes

(a) Definitions

Operating profit for life business is based on expected investment returns on financial investments backing shareholder and policyholder funds over the period, with consistent allowance for the corresponding expected movements in liabilities. Operating profit includes the effect of variance in experience for non-economic items, such as mortality, persistency and expenses, and the effect of changes in non-economic assumptions, where not treated as exceptional. 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 operating profit.

(b) Economic volatility

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

Life business	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m
Investment variances and economic assumptions – continuing operations	(2)	(305)	(620)
Investment variances and economic assumptions – discontinued operations	279	93	342
Investment variances and economic assumptions	277	(212)	(278)

For continuing operations, investment variances and economic assumption changes were £2 million negative (*HY12: £305 million negative*). There were positive investment variances in Spain, Italy and France, driven by narrower credit spreads on government and corporate bonds. This was offset by a negative variance in the UK, mainly due to increasing the allowance for credit risk defaults on UK commercial mortgages by £300 million together with some adverse current year experience on this portfolio. In the prior year, the negative variance mainly related to the UK.

The positive variance of £279 million for discontinued operations (*HY12: £93 million positive*) relates to the US, driven by the impact of favourable equity market performance on embedded derivatives.

(c) Assumptions

The expected rate of investment return is determined using consistent assumptions 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 equities and properties are:

	Equities			Properties		
	6 months 2013 %	6 months 2012 %	Full year 2012 %	6 months 2013 %	6 months 2012 %	Full year 2012 %
United Kingdom	5.4%	5.8%	5.8%	3.9%	4.3%	4.3%
Eurozone	5.1%	5.9%	5.9%	3.6%	4.4%	4.4%

The expected return on equities and properties has been calculated by reference to the 10 year swap rate in the relevant currency plus an appropriate risk margin. These are the same assumptions as are used under MCEV principles to calculate the longer-term investment return for the Group's life business.

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 investment return comprises the expected interest or dividend payments and amortisation of the premium or discount at purchase.

A5 – Non-life business: Short-term fluctuation in return on investments

	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m
General Insurance and health - continuing operations			
Analysis of investment income:			
– Net investment income	125	422	823
– Foreign exchange on unrealised gains/losses and other charges	(12)	(11)	(97)
	113	411	726
Analysed between:			
– Longer-term investment return, reported within operating profit	284	354	708
– Short-term fluctuations in investment return, reported outside operating profit	(171)	57	18
	113	411	726
Short-term fluctuations:			
– General insurance and health	(171)	57	18
– Other operations ¹	(135)	(26)	(11)
Total short-term fluctuations	(306)	31	7

¹ For 2013 represents short term fluctuations on assets backing non-life business in the France holding company and Group centre investments, including the centre hedging programme. For 2012 represents short term fluctuations on assets backing non-life business in France holding company.

The longer-term investment return is calculated separately for each principal non-life business unit. In respect of equities and properties, the return is calculated by multiplying the opening market value of the investments, adjusted for sales and purchases during the year, by the longer-term rate of investment return. The longer-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 longer-term return for other investments is the actual income receivable for the year. Actual income and longer-term investment return both contain the amortisation of the discounts/premium arising on the acquisition of fixed income securities.

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

Following restructuring in 2013, 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 now included in short-term fluctuations on other operations instead of general insurance and health.

The adverse movement in short-term fluctuation during the first half of 2013 compared with half-year 2012 is mainly due to an increase in risk free rates reducing fixed income security market values and other market movements impacting Group centre investments and the centre hedging programme.

The total assets supporting the general insurance and health business, which contribute towards the longer-term return, are:

	30 June 2013 £m	30 June 2012 £m	31 December 2012 £m
Debt securities	9,934	9,515	9,297
Equity securities	389	450	774
Properties	145	144	139
Cash and cash equivalents	2,455	2,327	2,535
Other	6,199	6,193	5,997
Assets supporting general insurance and health business	19,122	18,629	18,742
Assets supporting other non-life business ¹	195	233	206
Total assets supporting non-life business	19,317	18,862	18,948

¹ Represents assets backing non-life business in the France holding company.

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

	Longer-term rates of return on equities			Longer-term rates of return on property		
	6 months 2013 %	6 months 2012 %	Full year 2012 %	6 months 2013 %	6 months 2012 %	Full year 2012 %
United Kingdom	5.4%	5.8%	5.8%	3.9%	4.3%	4.3%
Eurozone	5.1%	5.9%	5.9%	3.6%	4.4%	4.4%
Canada	5.8%	5.8%	5.8%	4.3%	4.3%	4.3%

The underlying reference rates are in F18 within the MCEV financial supplement.

A6 – General insurance and health business: Economic assumption changes

Economic assumption changes of £27 million favourable (*HY12: £18 million adverse*) arise mainly as a result of an increase in the swap rates used to discount latent claims reserves.

A7 – Impairment of goodwill, associates, joint ventures and other amounts expensed

Impairment of goodwill, associates and joint ventures from continuing operations is a charge of £77 million (*HY12: £184 million gain*) reflecting a £48 million impairment in Europe and a £29 million impairment in Asia, arising from current market conditions.

A8 – Profit/loss on the disposal and remeasurement of subsidiaries and associates

The profit on disposal and remeasurement of subsidiaries and associates from continuing operations is £180 million (*HY12: £30 million loss*).

This includes profits on the disposals of the Irish long-term business Ark Life (£88 million), the Spanish long-term business Aseval (£197 million), the Group's Malaysian joint ventures (£39 million), Russia (£1 million) and gains on the disposal of other operations of £6 million. This is partly offset by a loss on remeasurement relating to the Italian long-term business Eurovita of £151 million, which has been classified as held for sale.

Profit on remeasurement of subsidiaries relating to discontinued operations is £91 million (*HY12: £nil*) including an increase in the expected sale proceeds less transaction costs of the US Life business. Further detail is provided in note B4.

A9 – Exceptional items

Exceptional 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. There were no exceptional items during the first half of 2013 (*HY12: £nil*).

A10 – Share of the results of Delta Lloyd as an associate

The Group ceased to account for Delta Lloyd as an associate from 5 July 2012. As a result, the Group's share of the results of its associate interest in Delta Lloyd for the period is £nil (*HY12: £304 million expense made up of £112 million share of operating profit, £(523) million share of non-operating items and £107 million share of tax expense*).

IFRS financial statements

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IFRS condensed consolidated financial statements

Condensed consolidated income statement

For the six month period ended 30 June 2013

	Reviewed 6 months 2013 £m	Restated ^{2, 3, 4} Reviewed 6 months 2012 £m	Restated ^{3, 4} Audited Full year 2012 £m			
	Continuing operations	Discontinued operations ¹	Continuing operations	Discontinued operations ¹	Continuing operations	Discontinued operations ¹
	Note					
Income						
Gross written premiums		11,451	1,103	11,810	1,955	22,744
Premiums ceded to reinsurers		(814)	(66)	(839)	(64)	(1,571)
Premiums written net of reinsurance		10,637	1,037	10,971	1,891	21,173
Net change in provision for unearned premiums		(89)	—	(212)	—	(16)
Net earned premiums		10,548	1,037	10,759	1,891	21,157
Fee and commission income		667	5	626	6	1,273
Net investment income		3,960	1,493	7,626	1,093	21,141
Share of (loss)/profit after tax of joint ventures and associates		(14)	—	(73)	—	(255)
Profit/(loss) on the disposal and remeasurement of subsidiaries and associates		180	91	(30)	—	(164)
		15,341	2,626	18,908	2,990	43,152
						3,494
Expenses						
Claims and benefits paid, net of recoveries from reinsurers		(11,458)	(1,434)	(12,290)	(1,356)	(23,601)
Change in insurance liabilities, net of reinsurance		1,909	(140)	1,106	(1,044)	(430)
Change in investment contract provisions		(1,961)	(28)	(1,040)	(46)	(4,450)
Change in unallocated divisible surplus		585	—	(2,506)	—	(6,316)
Fee and commission expense		(2,309)	(335)	(2,259)	(130)	(4,463)
Other expenses		(1,207)	(192)	(1,289)	(1,095)	(2,843)
Finance costs		(295)	(10)	(321)	(10)	(653)
		(14,736)	(2,139)	(18,599)	(3,681)	(42,756)
						(6,190)
Profit/(loss) before tax		605	487	309	(691)	396
						(2,696)
Tax attributable to policyholders' returns	B6	18	—	(21)	—	(221)
						—
Profit/(loss) before tax attributable to shareholders' profits		623	487	288	(691)	175
						(2,696)
Tax (expense)/credit	B6	(199)	(117)	(206)	(36)	(482)
Less: tax attributable to policyholders' returns	B6	(18)	—	21	—	221
						—
Tax attributable to shareholders' profits		(217)	(117)	(185)	(36)	(261)
						(152)
Profit/(loss) after tax		406	370	103	(727)	(86)
						(2,848)
Profit/(loss) from discontinued operations		370		(727)		(2,848)
Profit/(loss) for the period		776		(624)		(2,934)
Attributable to:						
Equity shareholders of Aviva plc		693		(688)		(3,102)
Non-controlling interests		83		64		168
		776		(624)		(2,934)
Earnings per share	B7					
Basic (pence per share)		22.8p		(24.0)p		(109.1)p
Diluted (pence per share)		22.5p		(24.0)p		(109.1)p

¹ Discontinued operations represents the results of the US life and related internal asset management businesses (US Life). For further details see note B4.

² Following a review of classification of contracts issued by the Group's Italian long-term business, certain portfolios have been reclassified from participating insurance to participating investment contracts for the 6 months 2012. There is no impact on the result for the 6 months 2012 as a result of this reclassification.

³ Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative periods in these financial statements. This has led to an increase in profit before tax of £150 million for FY12 and £74 million for HY12 with a corresponding decrease in other comprehensive income. For further detail of the impact of the restatement please see note B2.

⁴ Following the adoption of IFRS 10 'Consolidated financial statements' the Group has retrospectively applied the change to the comparative periods in these financial statements. For further details of the impact of the restatement please see note B2.

Condensed consolidated statement of comprehensive income

For the six month period ended 30 June 2013

	Note	Reviewed 6 months 2013 £m	Restated ² Reviewed 6 months 2012 £m	Restated ² Audited Full year 2012 £m
Profit/(loss) for the period from continuing operations		406	103	(86)
Profit/(loss) for the period from discontinued operations¹		370	(727)	(2,848)
Total profit/(loss) for the period		776	(624)	(2,934)
Other comprehensive income from continuing operations:				
<i>Items that may be reclassified subsequently to income statement</i>				
Investments classified as available for sale				
Fair value (losses)/gains		(7)	7	27
Fair value (losses)/gains transferred to profit on disposals		(1)	—	1
Share of other comprehensive income of joint ventures and associates		(31)	5	14
Foreign exchange rate movements		358	(193)	(200)
Aggregate tax effect – shareholder tax on items that may be reclassified into profit or loss		(17)	7	8
<i>Items that will not be reclassified to income statement</i>				
Owner-occupied properties – fair value gains/(losses)		—	(1)	(3)
Remeasurements of pension schemes		(294)	49	(980)
Aggregate tax effect – shareholder tax on items that will not be reclassified into profit or loss		65	(34)	189
Other comprehensive income, net of tax from continuing operations		73	(160)	(944)
Other comprehensive income, net of tax from discontinued operations	B4	(206)	105	68
Total other comprehensive income, net of tax		(133)	(55)	(876)
Total comprehensive income for the period from continuing operations		479	(57)	(1,030)
Total comprehensive income for the period from discontinued operations		164	(622)	(2,780)
Total comprehensive income for the period		643	(679)	(3,810)
Attributable to:				
Equity shareholders of Aviva plc		489	(703)	(3,942)
Non-controlling interests		154	24	132
		643	(679)	(3,810)

¹ Discontinued operations represents the results of the US life and related internal asset management businesses (US Life). For further details see note B4.

² Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative periods in these financial statements. This has led to an increase in profit before tax of £150 million for FY12 and £74 million for HY12 with a corresponding decrease in other comprehensive income. For details see note B2.

Condensed consolidated statement of changes in equity

For the six month period ended 30 June 2013

	Reviewed 6 months 2013 £m	Restated Reviewed 6 months 2012 £m	Restated Audited Full year 2012 £m
Balance at 1 January	11,360	15,363	15,363
Profit/(loss) for the period	776	(624)	(2,934)
Other comprehensive income	(133)	(55)	(876)
Total comprehensive income for the period	643	(679)	(3,810)
Dividends and appropriations	(290)	(474)	(847)
Shares issued in lieu of dividends	—	38	127
Capital contributions from non-controlling interests	—	6	20
Non-controlling interests in (disposed)/acquired subsidiaries	(147)	5	(6)
Share of dividends declared in the period applicable to non-controlling interests	(75)	(66)	(102)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	(157)	—	187
Shares acquired by employee trusts	—	(3)	(33)
Shares distributed by employee trusts	3	—	8
Reserves credit for equity compensation plans	23	23	42
Shares issued under equity compensation plans	—	—	1
Aggregate tax effect – shareholder tax	4	—	18
Issue of fixed rate Tier 1 notes	—	392	392
Balance at 30 June/31 December¹	11,364	14,605	11,360

¹ Included in the above balance are £0.8 billion of currency translation and investment valuation reserves at 30 June 2013 relating to discontinued operations (FY12: £1.0 billion, HY12: £1.0 billion).

Condensed consolidated statement of financial position

As at 30 June 2013

	Note	Reviewed 30 June 2013 £m	Restated ^{1,2} Reviewed 30 June 2012 £m	Restated ² Audited 31 December 2012 £m
Assets				
Goodwill		1,504	1,794	1,520
Acquired value of in-force business and intangible assets		1,095	1,649	1,084
Interests in, and loans to, joint ventures		1,237	1,602	1,390
Interests in, and loans to, associates		265	1,005	265
Property and equipment		395	445	391
Investment property		9,832	10,301	9,939
Loans		24,225	26,918	24,537
Financial investments		192,670	213,547	189,019
Reinsurance assets	B11	6,907	7,239	6,684
Deferred tax assets		234	262	188
Current tax assets		89	74	67
Receivables		7,981	8,342	7,476
Deferred acquisition costs and other assets		3,417	6,431	3,778
Prepayments and accrued income		2,704	3,175	2,700
Cash and cash equivalents		25,075	24,024	23,102
Assets of operations classified as held for sale	B4	41,712	3,962	42,603
Total assets		319,342	310,770	314,743
Equity				
Capital				
Ordinary share capital		736	729	736
Preference share capital		200	200	200
		936	929	936
Capital reserves				
Share premium		1,165	1,170	1,165
Merger reserve		3,271	3,271	3,271
		4,436	4,441	4,436
Shares held by employee trusts		(9)	(14)	(32)
Other reserves		1,532	1,514	1,675
Retained earnings		1,581	4,854	1,389
Equity attributable to shareholders of Aviva plc		8,476	11,724	8,404
Direct capital instruments and fixed rate tier 1 notes		1,382	1,382	1,382
Non-controlling interests		1,506	1,499	1,574
Total equity		11,364	14,605	11,360
Liabilities				
Gross insurance liabilities	B9	113,060	145,488	113,091
Gross liabilities for investment contracts	B10	113,285	109,901	110,494
Unallocated divisible surplus	B13	6,569	3,162	6,931
Net asset value attributable to unitholders		12,340	9,274	10,259
Provisions	B15	1,079	1,097	1,119
Deferred tax liabilities		551	1,324	547
Current tax liabilities		130	200	112
Borrowings		8,254	8,112	8,179
Payables and other financial liabilities		9,764	11,045	9,398
Other liabilities		1,826	2,927	1,842
Liabilities of operations classified as held for sale	B4	41,120	3,635	41,411
Total liabilities		307,978	296,165	303,383
Total equity and liabilities		319,342	310,770	314,743

1 Following a review of classification of contracts issued by the Group's Italian long-term business, certain portfolios have been reclassified from participating insurance to participating investment contracts as at 30 June 2012. There is no impact on the result for the six months to 30 June 2012.

2 The statement of financial position has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for any period presented as a result of this restatement.

Condensed consolidated statement of cash flows

For the six month period ended 30 June 2013

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.

	Notes	Reviewed 6 months 2013 £m	Restated ¹ Reviewed 6 months 2012 £m	Restated ¹ Audited Full year 2012 £m
Cash flows from operating activities				
Cash generated from continuing operations		1,237	2,292	2,881
Tax paid		(215)	(90)	(428)
Net cash from operating activities – continuing operations		1,022	2,202	2,453
Net cash from operating activities – discontinued operations		105	174	46
Total net cash from operating activities		1,127	2,376	2,499
Cash flows from investing activities				
Acquisitions of, and additions to, subsidiaries, joint ventures and associates, net of cash acquired		—	(43)	(129)
Disposals of subsidiaries, joint ventures and associates, net of cash transferred		388	54	421
New loans to joint ventures and associates		(5)	(3)	(4)
Repayment of loans to joint ventures		5	—	12
Net new loans to joint ventures		—	(3)	8
Purchases of property and equipment		(36)	(23)	(220)
Proceeds on sale of property and equipment		10	9	43
Purchases of intangible assets		(28)	(52)	(128)
Net cash from/(used in) investing activities – continuing operations		334	(58)	(5)
Net cash from/(used in) investing activities – discontinued operations		—	(6)	(10)
Total net cash from/(used in) investing activities		334	(64)	(15)
Cash flows from financing activities				
Proceeds from issue of fixed rate tier 1 notes, net of transaction costs		—	392	392
Treasury shares purchased for employee trusts		—	(3)	(33)
New borrowings drawn down, net of expenses		1,042	1,144	2,529
Repayment of borrowings		(871)	(1,335)	(2,513)
Net drawdown/(repayment) of borrowings		171	(191)	16
Interest paid on borrowings		(292)	(308)	(665)
Preference dividends paid		(9)	(9)	(17)
Ordinary dividends paid		(264)	(427)	(630)
Coupon payments on direct capital instruments and fixed rate tier 1 notes		(17)	—	(73)
Capital contributions from non-controlling interests		—	6	20
Dividends paid to non-controlling interests of subsidiaries		(75)	(66)	(102)
Changes in controlling interest in subsidiary		—	(1)	—
Net cash (used in)/from financing activities – continuing operations		(486)	(607)	(1,092)
Net cash (used in)/from financing activities - discontinued operations		15	—	(27)
Total net cash (used in)/from financing activities		(471)	(607)	(1,119)
Total net increase/(decrease) in cash and cash equivalents		990	1,705	1,365
Net cash and cash equivalents at 1 January		23,453	22,401	22,401
Effect of exchange rate changes on cash and cash equivalents		595	(338)	(313)
Net cash and cash equivalents at 30 June/31 December	B19	25,038	23,768	23,453

¹ The statement of cash flows has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for any period presented as a result of this restatement.

Notes to the condensed consolidated financial statements

B1 – Basis of preparation

- (a) The condensed consolidated financial statements for the six months to 30 June 2013 have been prepared in accordance with IAS 34, Interim Financial Reporting, as issued by the International Accounting Standards Board (IASB) and endorsed by the European Union (EU), and the Disclosure and Transparency Rules of the Financial Conduct Authority.

The accounting policies applied in the condensed consolidated financial statements are the same as those applied in Aviva plc's 2012 Annual Report and Accounts, except for the adoption of new standards, interpretations and amendments to existing standards as detailed in Note B2.

The results for the six months to 30 June 2013 are unaudited but have been reviewed by the auditor, PricewaterhouseCoopers LLP. The interim results do not constitute statutory accounts as defined in Section 434 of the Companies Act 2006. The results for the full year 2012 have been taken from the Group's 2012 Annual Report and Accounts and have been restated for the adoption of accounting policies noted in Note B2. Therefore, these interim accounts should be read in conjunction with the 2012 Annual Reports and Accounts that have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and endorsed by the European Union. PricewaterhouseCoopers LLP reported on the 2012 financial statements and their report was unqualified and did not contain a Statement under section 498 (2) or (3) of the Companies Act 2006. The Group's 2012 Annual Report and Accounts has been filed with the Registrar of Companies.

After making enquiries, the directors have a reasonable expectation that the Company and the Group as a whole have adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis in preparing the interim financial statements.

- (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 the financial statements are in millions of pounds sterling (£m).
- (c) The long-term nature of much of the Group's operations means that, for management's decision-making and internal performance management, short-term realised and unrealised investment gains and losses are treated as non-operating items. As a result, the Group focuses on an operating profit measure that incorporates an expected return on investments supporting its long-term and non-long-term businesses. Operating profit for long-term 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. Variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside operating profit. For non-long-term business, the total investment income, including realised and unrealised gains, is analysed between that calculated using a longer-term return and short-term fluctuations from that level. Operating profit also excludes impairment of goodwill, associates and joint ventures; amortisation and impairment of intangibles; the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates; integration and restructuring costs; and exceptional items.
- (d) *Presentation changes*
- (i) *Discontinued operations*
As described in note B4, the Group's US life and annuity business and associated investment management operations (together 'US Life'), have been classified as held for sale. Consistent with the presentation in the Group's 2012 Report and Accounts, the results of US Life for the period, as well as those for preceding periods, have been classified as discontinued operations.
- (ii) *Change to operating segments*
In the first quarter of 2013, the Group announced modifications to its management structure. As a result, the Group's operating segments were reviewed to align them with the revised organisational reporting structure. This has resulted in changes to the reportable operating segments as described in note B5.
- (iii) *Restatement of prior period*
Consistent with the presentation in the 2012 Report and Accounts, certain portfolios of the Group's Italian long-term business have been reclassified from participating insurance contracts to participating investment contracts. There has been a reallocation from gross insurance liabilities at 30 June 2012 to gross liabilities for investment contracts of £2,515 million. The change in insurance liabilities net of reinsurance recognised in the income statement for the 6 months to 30 June 2012 has decreased by £124 million, and the change in investment contract provisions has increased by an equal amount. There is no impact on profit for the period or equity reported for the period ended 30 June 2012.

B2 – New standards, interpretations and amendments to published standards that have been adopted by the Group

The Group has adopted the following new or revised standards that became effective as of 1 January 2013. There is no impact on the Group's equity as at 31 December 2012 or at 30 June 2012.

- (a) IFRS 10 Consolidated Financial Statements – sets out the requirements for the preparation and presentation of consolidated financial statements, requiring entities to consolidate entities it controls. The standard changes the definition of control such that an investor has control over an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to influence those returns through power over the investee. An investor is considered to have control if all three of the following are met: (1) it has power over an investee; (2) it is exposed to, or has rights to, variable returns from its involvement with the investee; and (3) it has the ability to use its power over the investee to affect its own returns. In line with the transitional provisions the requirements have been retrospectively applied at the beginning of the immediate preceding period. The application of IFRS 10 has resulted in the consolidation of investment vehicles that were not previously consolidated, and deconsolidation of investment vehicles that were previously consolidated. There is no impact on the profit for six months ended 30 June 2012 or year ended 31 December 2012 or equity reported. There is no material impact on the total assets or liabilities in either of the comparative periods. The effect on amounts previously reported at 30 June 2012 and 31 December 2012 is set out in the tables below.
- (b) IFRS 11 Joint Arrangements – defines and establishes accounting principles for joint arrangements. The standard distinguishes between two types of joint arrangements – joint ventures and joint operations – based on how rights and obligations are shared by parties to the arrangements. The adoption of IFRS 11 has no impact on the interim consolidated financial statements.
- (c) IFRS 13 Fair Value Measurement – establishes a single standard for all fair value measurements. The standard does not change the scope of fair value measurement, but provides further guidance on how fair value should be determined. The changes have no significant impact on the Group's application of fair value measurements. IFRS 13 also requires specific disclosures on fair values, some of which replace existing disclosure requirements in other standards, including IFRS 7 Financial Instruments: Disclosures. Some of these disclosures are specifically required to be disclosed in the condensed consolidated interim financial statements by IAS 34 (amended) and are provided in Note B17.
- (d) IAS 1 Presentation of Financial Statements (amended) – requires the grouping of items presented in other comprehensive income according to whether they will subsequently be reclassified to income statement. The criteria when items are required to be reclassified from other comprehensive income to income statement are set out in "Accounting policies" in the audited consolidated financial statements included in the Group's 2012 Report and Accounts. The adoption of the amendments to IAS 1 results in a revised presentation of the statement of comprehensive income in these interim financial statements.
- (e) IAS 19 Employee Benefits (revised) – amends the accounting for employee benefits. The revised standard has been applied retrospectively in accordance with the transitional provision of the standard. The key impact of the revised standard on the Group's condensed consolidated financial statements is the replacement of the interest cost on the defined benefit obligation and the expected return on plan assets with a net interest cost based on the net defined benefit asset or liability and the discount rate at the beginning of the year. There is no change in the method to determine the discount rate. This has resulted in an increase in profit before tax of £150 million for the year ended 31 December 2012 and £74 million for the 6 months ended 30 June 2012 with a corresponding decrease in other comprehensive income as the discount rate applied to assets is higher than the previously applied expected return on assets. The revised standard has introduced a new term "remeasurements" comprised of actuarial gains and losses and the difference between actual investment returns less investment expenses and the return implied by the net interest cost. The effect on amounts previously reported is set out in the tables below.

B2 – New standards, interpretations and amendments to published standards that have been adopted by the Group continued

Impact of changes in accounting policies/standards on condensed consolidated income statement

	6 months 2012					Full year 2012			
	As reported £m	Less discontinued operations £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated continuing operations £m	As reported continuing operations £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated continuing operations £m
Total income	21,863	(2,990)	(6)	41	18,908	43,095	(28)	85	43,152
<i>Effect of change in policy analysed as:</i>									
Net investment income	8,687	(1,093)	(9)	41	7,626	21,106	(50)	85	21,141
Share of loss after tax of joint ventures and associates	(76)	—	3	—	(73)	(277)	22	—	(255)
Total expenses	(22,319)	3,681	6	33	(18,599)	(42,849)	28	65	(42,756)
<i>Effect of change in policy analysed as:</i>									
Fee and commission expense	(2,389)	130	—	—	(2,259)	(4,472)	9	—	(4,463)
Other expenses	(2,394)	1,095	10	—	(1,289)	(2,845)	2	—	(2,843)
Finance costs	(360)	10	(4)	33	(321)	(735)	17	65	(653)
(Loss)/profit before tax	(456)	691	—	74	309	246	—	150	396
Tax attributable to shareholders' profits	(204)	36	—	(17)	(185)	(227)	—	(34)	(261)
(Loss)/profit after tax	(681)	727	—	57	103	(202)	—	116	(86)
Loss after tax from discontinued operations	—	(727)	—	—	(727)	(2,848)	—	—	(2,848)
Loss for the period	(681)	—	—	57	(624)	(3,050)	—	116	(2,934)
Loss for the period attributable to:									
Equity shareholders of Aviva plc	(745)	—	—	57	(688)	(3,218)	—	116	(3,102)
Non-controlling interests	64	—	—	—	64	168	—	—	168
Earnings per share¹									
Basic earnings per share	(26.0p)	—	—	2.0p	(24.0p)	(113.1p)	—	4.0p	(109.1p)
Diluted earnings per share	(26.0p)	—	—	2.0p	(24.0p)	(113.1p)	—	4.0p	(109.1p)

¹ From continuing and discontinued operations

Impact of changes in accounting policies/standards on condensed consolidated statement of comprehensive income

	6 months 2012					Full year 2012			
	As reported £m	Less discontinued operations £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m	As reported £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m
Total comprehensive income for the period	(679)	—	—	—	(679)	(3,810)	—	—	(3,810)
Comprises:									
Total (loss)/profit for the period	(681)	—	—	57	(624)	(3,050)	—	116	(2,934)
Total other comprehensive income, net of tax	2	—	—	(57)	(55)	(760)	—	(116)	(876)
Total other comprehensive income, net of tax analysed as:									
From continuing operations	2	(105)	—	(57)	(160)	(828)	—	(116)	(944)
From discontinued operations	—	105	—	—	105	68	—	—	68
<i>Effect of change in policy analysed as:</i>									
Remeasurement of pension schemes ²	123	—	—	(74)	49	(830)	—	(150)	(980)
Aggregate tax effect – shareholder tax	(118)	74	—	17	(27)	163	—	34	197

² Including actuarial gains/(losses) on pension schemes

B2 – New standards, interpretations and amendments to published standards that have been adopted by the Group continued

Impact of changes in accounting policies on condensed consolidated statement of financial position

	30 June 2012				31 December 2012			
	As reported £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m	As reported £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m
Total assets	312,609	(1,839)	—	310,770	315,689	(946)	—	314,743
<i>Effect of change in policy analysed as:</i>								
Interests in, and loans to joint ventures and associates	2,668	(61)	—	2,607	1,708	(53)	—	1,655
Investment property	11,001	(700)	—	10,301	10,815	(876)	—	9,939
Financial investments	213,270	277	—	213,547	189,078	(59)	—	189,019
Receivables	8,456	(114)	—	8,342	7,617	(141)	—	7,476
Deferred acquisition costs and other assets	6,444	(13)	—	6,431	3,799	(21)	—	3,778
Prepayments and accrued income	3,176	(1)	—	3,175	2,701	(1)	—	2,700
Cash and cash equivalents	25,251	(1,227)	—	24,024	22,897	205	—	23,102
Total equity and liabilities	312,609	(1,839)	—	310,770	315,689	(946)	—	314,743
Total equity	14,605	—	—	14,605	11,360	—	—	11,360
Total liabilities	298,004	(1,839)	—	296,165	304,329	(946)	—	303,383
<i>Effect of change in policy analysed as:</i>								
Net asset value attributable to unit holders	11,138	(1,864)	—	9,274	11,146	(887)	—	10,259
Borrowings	8,071	41	—	8,112	8,194	(15)	—	8,179
Payables and other financial liabilities	11,061	(16)	—	11,045	9,441	(43)	—	9,398
Other liabilities	2,927	—	—	2,927	1,843	(1)	—	1,842

There is no impact from the adoption of these standards on the statement of changes in equity reported at 30 June 2012 or at 31 December 2012. The impact on the statement of cash flows is a £1,227 million decrease in net cash from operating activities for the six months ended 30 June 2012 (*31 December 2012: increase of £205 million*). Previously reported cash flows from financing and investing activities were unaffected.

B3 – Exchange rates

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

	6 months 2013	6 months 2012	Full year 2012
Eurozone			
Average rate (€1 equals)	£0.85	£0.82	£0.81
Period end rate (€1 equals)	£0.86	£0.81	£0.81
United States			
Average rate (\$US1 equals)	£0.65	£0.63	£0.63
Period end rate (\$US1 equals)	£0.66	£0.64	£0.62

B4– Subsidiaries

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

(a) Acquisitions

There have been no material acquisitions during the period.

(b) Disposal and remeasurement of subsidiaries, joint ventures and associates

The profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates comprises:

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Ireland – long-term business (see (i) below)	88	—	—
Spain – long-term business (see (ii) below)	197	—	—
Malaysia (see (iii) below)	39	—	—
Russia (see (iv) below)	1	—	—
Czech Republic, Hungary and Romania (see (v) below)	1	—	7
Italy – long-term business (see (c)(ii) below)	(151)	—	—
United Kingdom – RAC Limited	—	(21)	(21)
Delta Lloyd Associate	—	—	(129)
Sri Lanka	—	—	12
Other small operations	5	(9)	(33)
Profit/(loss) on disposal and remeasurement from continuing operations	180	(30)	(164)
Profit/(loss) on disposal and remeasurement from discontinued operations (see (c)(i) below)	91	—	(2,359)
Total profit/(loss) on disposal and remeasurement	271	(30)	(2,523)

(i) Irish long-term business

On 17 January 2012 the Group's Irish long-term subsidiary Ark Life Assurance Company Limited (Ark Life) was classified as held for sale as a result of Allied Irish Bank ("AIB") exercising an option to purchase this entity. In addition AIB exercised its option to put its non-controlling interest in Aviva Life Holdings Ireland Limited (ALHI), another Irish Group subsidiary, to the Group. As a result this non-controlling interest was reclassified from equity to liabilities. At 31 December 2012 the net assets of Ark Life and the liability to purchase the ALHI non-controlling interest were recorded in the Group financial statements at management's best estimates of settlement value.

On 8 March 2013 the disposal of Ark Life and the acquisition of the non-controlling interest in ALHI were completed, for cash consideration of £117 million, consistent with the estimated expected net settlement reflected at 31 December 2012, together with settlement of the non controlling interest purchase liability of £166 million. This transaction resulted in a profit on disposal of £88 million, calculated as follows:

	30 June 2013 £m
Assets	
Intangible assets	77
Investment property	13
Financial Investments	2,955
Reinsurance assets	249
Prepayments and accrued income	9
Other assets	77
Cash and cash equivalents	362
Total assets	3,742
Liabilities	
Insurance liabilities	1,338
Liability for investment contracts	1,955
Other liabilities	166
Total liabilities	3,459
Net assets disposed of	283
ALHI non controlling interest purchase liability settled	166
Cash consideration	117
Less: Transaction costs	(5)
Net consideration	278
Currency translation reserve recycled to the income statement	93
Profit on disposal	88

B4 – Subsidiaries continued**(ii) Spanish long-term business – Aseval**

On 18 December 2012 Aviva reached a settlement with Bankia S.A. ("Bankia") to transfer the Group's 50% interest in its subsidiary Aseval Aseguradora Valenciana, Sociedad Anónima de Seguros y Reaseguros ("Aseval"), a Spanish life assurance company, to Bankia. Aseval was classified as held for sale at this date.

On 24 April 2013 the Group disposed of its entire holding in Aseval to Bankia for cash consideration of £502 million resulting in a profit on disposal of £197 million, calculated as follows:

	30 June 2013 £m
Assets	
Goodwill	189
Intangible assets	11
Financial Investments	2,378
Reinsurance assets	6
Receivables and other financial assets	12
Prepayments and accrued income	35
Other assets	10
Cash and cash equivalents	75
Total assets	2,716
Liabilities	
Insurance liabilities	2,008
Payables and other financial liabilities	76
Other liabilities	120
Total liabilities	2,204
Net assets	512
Non-controlling interests before disposal	(158)
Group's Share of net assets disposed of	354
Cash consideration	502
Less: transaction costs	(5)
Net consideration	497
Currency translation reserve recycled to the income statement	54
Profit on disposal	197

(iii) Malaysia

On 12 April 2013 the Group disposed of its 49% interest in its Malaysia long-term business joint ventures, CIMB Aviva Assurance Berhad and CIMB Aviva Takaful Berhad, to Sun Life Assurance Company of Canada, a subsidiary of Sun Life Financial Inc, for cash consideration of £153 million resulting in a profit on disposal of £39 million, calculated as follows:

	30 June 2013 £m
Interest in joint ventures disposed of	120
Cash consideration	153
Less: Transaction costs	(3)
Net consideration	150
Currency translation reserve recycled to the income statement	9
Profit on disposal	39

(iv) Russia

On 8 April 2013 the Group disposed of its subsidiary in Russia, Closed Joint Stock Insurance Company Aviva (Zao) ("Aviva Russia"), to Blagosostoyanie, a non-state pension fund in Russia, for consideration of £30 million, after transaction costs. Net assets disposed of were £29 million, comprising gross assets of £155 million and gross liabilities of £126 million resulting in a profit on disposal of £1 million.

(v) Romania Pensions

On 7 May 2013 the Group sold its Romania Pensions business to MetLife, Inc for consideration of £5 million. Net assets disposed of were £4 million, comprising gross assets of £11 million and gross liabilities of £7 million resulting in a profit on disposal of £1 million.

B4 – Subsidiaries continued**(c) Assets and liabilities of operations classified as held for sale**

The assets and liabilities of operations classified as held for sale as at 30 June 2013 are as follows:

	30 June 2013			30 June 2012	31 December 2012		
	US Life £m	Other £m	Total £m	Total £m	US Life £m	Other £m	Total £m
Assets							
Goodwill	—	—	—	—	—	183	183
Acquired value of in-force business and intangible assets	496	—	496	108	408	83	491
Interests in, and loans to, joint ventures and associates	—	13	13	14	—	126	126
Property and equipment	—	—	—	—	—	2	2
Investment property	6	—	6	26	6	12	18
Loans	3,784	—	3,784	—	3,397	—	3,397
Financial investments	32,309	2,575	34,884	3,039	31,212	5,203	36,415
Reinsurance assets	699	13	712	244	644	239	883
Deferred acquisition costs	2,342	—	2,342	91	1,468	70	1,538
Other assets	781	179	960	31	769	97	866
Cash and cash equivalents	697	268	965	409	544	373	917
	41,114	3,048	44,162	3,962	38,448	6,388	44,836
Additional impairment to write down the disposal group to fair value less costs to sell	(2,306)	(144)	(2,450)	—	(2,233)	—	(2,233)
Total assets	38,808	2,904	41,712	3,962	36,215	6,388	42,603
Liabilities							
Insurance liabilities	(33,229)	(103)	(33,332)	(1,633)	(31,153)	(3,294)	(34,447)
Liability for investment contracts	(2,171)	(2,687)	(4,858)	(1,798)	(2,197)	(1,857)	(4,054)
Unallocated divisible surplus	—	18	18	—	—	(55)	(55)
Provisions	(176)	(1)	(177)	(7)	(184)	(3)	(187)
Deferred tax liabilities	(688)	—	(688)	(12)	(672)	(8)	(680)
Current tax liabilities	(19)	—	(19)	(4)	—	—	—
External borrowings	(182)	(30)	(212)	—	(145)	—	(145)
Other liabilities	(1,820)	(32)	(1,852)	(181)	(1,497)	(346)	(1,843)
Total liabilities	(38,285)	(2,835)	(41,120)	(3,635)	(35,848)	(5,563)	(41,411)
Net assets	523	69	592	327	367	825	1,192

(i) US long-term business

On 8 November 2012 the Group confirmed it was in discussions with external parties with respect to its US life operations, consisting of Aviva Life and Annuity Company and the associated internal asset management operations of Aviva Investors North America, Inc ("US Life") and these have been classified as held for sale. On 21 December 2012 the Group announced that it had agreed to sell US Life to Athene Holding Ltd for consideration of £1.0 billion including the shareholder loan (£1.1 billion including repayment of an external loan). Following classification as held for sale, US Life was re-measured to fair value less costs to sell. The results of US life continue to be presented in the Group financial statements, classified as discontinued operations in the income statement. The transaction is expected to complete in 2013.

As noted in the 2012 report and accounts, there is uncertainty in the ultimate consideration which depends primarily on the development of the statutory surplus between the announcement of sale and ultimate completion date. At the end of the period, the fair value less costs to sell was assessed considering movements in the statutory surplus and other items and increased by £129 million, with an additional £27 million of foreign exchange movements, to £523 million (31 December 2012: £367 million) reflecting management's revised best estimate of the expected proceeds.

During the period the underlying net assets of US Life increased slightly resulting in a further impairment of £38 million being recorded in the income statement so that the impaired carrying value continues to equal the fair value less costs to sell. The charge was more than offset by the £129 million increase in expected fair value less costs to sell, resulting in a net £91 million profit on remeasurement in the income statement. Movements in exchange rates resulted in foreign exchange losses of £(164) million being recognised in other comprehensive income due primarily to the retranslation of the underlying net assets from the opening to closing rate.

Other comprehensive income, net of tax from discontinued operations of £(206) million includes £303 million fair value losses on available for sale financial investments, £65 million fair value gains on available for sale financial investments transferred to the income statement on disposal, offset by £29 million foreign exchange gains, £7 million of gains from the transfer of previously recognised impairment losses to the income statement and £126 million aggregate shareholder tax effect.

On completion of the disposal the currency translation reserves and investment valuation reserves relating to the US Life operations, currently recognised within equity, will be recycled to the income statement.

(ii) Other

During the period the Italian long-term business Eurovita Assicurazioni S.p.A ("Eurovita") was classified as held for sale, as a result of management determining that the value of this business will principally be recovered through sale. Following classification as held for sale, Eurovita has been re-measured to fair value less costs to sell. A loss on remeasurement of £151 million has been recognised within "Profit on the disposal and re-measurement of subsidiaries and associates" in the income statement. Aviva's share of this loss is £66 million.

After remeasurement the carrying value of this business is equal to its fair value less costs to sell of £48 million. Net of non-controlling interests, Aviva's share of these net assets is £18 million. Eurovita's results continue to be consolidated. On completion of the disposal the currency translation reserves relating to Eurovita, currently recognised within equity, will be recycled to the income statement.

Other businesses classified as held for sale at 30 June 2013 with net assets of £21 million, comprise a joint venture in Taiwan and other small operations.

B5 – Segmental information

The Group's results can be segmented, either by activity or by geography. Our primary reporting format is on market reporting lines, with supplementary information being given by business activity. This note provides segmental information on the condensed consolidated income statement and condensed consolidated statement of financial position.

The Group has determined its operating segments along market reporting lines. These reflect the management structure whereby a member of the Executive Management team is accountable to the Group CEO for the operating segment for which they are responsible.

Following announcements in Q1 2013 relating to modifications to its management structure, the Group's operating segments were changed to align them with the revised organisational reporting structure. The new segments are set out below. Results for prior periods have been restated to facilitate comparison.

United Kingdom & Ireland

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

France

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

Poland

Activities in Poland comprise long-term business and general insurance operations.

Italy, Spain and Other

These countries are not individually significant at a Group level, so have been aggregated into a single reporting segment in line with IFRS 8. This segment includes our operations in Italy and Spain (including Aseval up until the date of its disposal in April 2013). The principal activities of our Italian operations are long-term business and general insurance. The life business offers a range of long-term insurance and savings products, and the general insurance business provides motor and home insurance products to individuals, as well as small commercial risk insurance to businesses. The operations of Eurovita have been classified as held for sale as at 30 June 2013. The principal activity of the Spanish operation is the sale of long-term business, accident and health insurance and a selection of savings products. Our Other European operations include Turkey (both Life and General Insurance) and this segment also includes the results of our Russian, Czech, Hungarian and Romanian businesses until the date of their disposals.

Canada

The principal activity of the Canadian operation is general insurance. In particular it provides personal and commercial lines insurance products through a range of distribution channels.

Asia

Our activities in Asia principally comprise our long-term business operations in China, India, Singapore, Hong Kong, South Korea, Vietnam and Indonesia as well as our life operation in Taiwan which is held for sale as at the balance sheet date. This segment also includes the results of Sri Lanka and Malaysia until the date of their disposals (in December 2012 and April 2013, respectively). Asia also includes general insurance operations in Singapore and health operations in Indonesia.

Aviva Investors

Aviva Investors operates in most of the markets in which the Group operates, in particular the UK, France and Canada and other international businesses, managing policyholders' and shareholders' invested funds, providing investment management services for institutional pension fund mandates and managing a range of retail investment products, including investment funds, unit trusts, OEICs and ISAs. The internal asset management operations of Aviva Investors North America are being sold with the Group's US life operations and are classified as held for sale and as a discontinued operation in these financial statements.

Other Group activities

Investment return on centrally held assets and head office expenses, such as Group treasury and finance functions, together with certain taxes and financing costs arising on central borrowings are included in 'Other Group activities', along with central core structural borrowings and certain tax balances in the segmental statement of financial position. The results of our reinsurance operations are also included in this segment.

Discontinued operations

In December 2012 the Group announced it had agreed to sell its US life operations (including the related internal asset management operations of Aviva Investors) and therefore it has been classified as a discontinued operation for presentation in the income statement and held for sale in the statement of financial position.

Measurement basis

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

- (i) profit or loss from operations before tax attributable to shareholders
- (ii) profit or loss from operations before tax attributable to shareholders, adjusted for non-operating items outside the segment management's control, including investment market performance and fiscal policy changes.

B5 – Segmental information continued**(a) (i) Segmental income statement for the six month period ended 30 June 2013**

	United Kingdom & Ireland		Europe										
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	Canada £m	Asia £m	Aviva Investors ³ £m	Other Group activities ⁴ £m	Continuing operations £m	Discontinued operations £m	Total £m	
Gross written premiums	2,588	2,413	2,936	236	1,757	1,162	351	—	8	11,451	1,103	12,554	
Premiums ceded to reinsurers	(400)	(248)	(28)	(4)	(38)	(32)	(63)	—	(1)	(814)	(66)	(880)	
Internal reinsurance revenue	—	(4)	(3)	(1)	(7)	(4)	—	—	19	—	—	—	
Net written premiums	2,188	2,161	2,905	231	1,712	1,126	288	—	26	10,637	1,037	11,674	
Net change in provision for unearned premiums	(20)	50	(92)	(5)	3	(20)	(1)	—	(4)	(89)	—	(89)	
Net earned premiums	2,168	2,211	2,813	226	1,715	1,106	287	—	22	10,548	1,037	11,585	
Fee and commission income	234	100	64	27	60	21	10	152	(1)	667	5	672	
	2,402	2,311	2,877	253	1,775	1,127	297	152	21	11,215	1,042	12,257	
Net investment income/(expense)	2,468	131	426	(1)	629	(6)	32	44	237	3,960	1,493	5,453	
Inter-segment revenue	—	—	—	—	—	—	—	55	—	55	33	88	
Share of (loss)/profit of joint ventures and associates	(29)	—	4	1	3	—	7	—	—	(14)	—	(14)	
Profit/(loss) on the disposal and remeasurement of subsidiaries and associates	88	—	—	—	53	—	39	—	—	180	91	271	
Segmental income ¹	4,929	2,442	3,307	253	2,460	1,121	375	251	258	15,396	2,659	18,055	
Claims and benefits paid, net of recoveries from reinsurers	(4,550)	(1,440)	(2,344)	(180)	(2,030)	(639)	(258)	—	(17)	(11,458)	(1,434)	(12,892)	
Change in insurance liabilities, net of reinsurance	2,381	92	(810)	45	252	(34)	10	—	(27)	1,909	(140)	1,769	
Change in investment contract provisions	(1,505)	—	(410)	3	21	—	—	(70)	—	(1,961)	(28)	(1,989)	
Change in unallocated divisible surplus	(288)	—	883	20	(34)	—	4	—	—	585	—	585	
Amortisation of acquired value of in-force business	(4)	—	(9)	(1)	(5)	—	—	—	—	(19)	(63)	(82)	
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(14)	(1)	(2)	—	(57)	(9)	(2)	(11)	(13)	(109)	(9)	(118)	
Other operating expenses	(615)	(860)	(386)	(51)	(231)	(373)	(78)	(161)	(623)	(3,378)	(448)	(3,826)	
Impairment losses on AVIF and tangible assets ²	—	(10)	—	—	—	—	—	—	—	(10)	(7)	(17)	
Inter-segment expenses	(48)	(2)	—	(3)	—	(2)	—	—	—	(55)	(33)	(88)	
Finance costs	(104)	(4)	(4)	—	(2)	(4)	—	(3)	(174)	(295)	(10)	(305)	
Segmental expenses	(4,747)	(2,225)	(3,082)	(167)	(2,086)	(1,061)	(324)	(245)	(854)	(14,791)	(2,172)	(16,963)	
Profit/(loss) before tax	182	217	225	86	374	60	51	6	(596)	605	487	1,092	
Tax attributable to policyholders' returns	7	—	—	—	—	—	11	—	—	18	—	18	
Profit/(loss) before tax attributable to shareholders	189	217	225	86	374	60	62	6	(596)	623	487	1,110	
Adjusted for non-operating items:													
Reclassification of corporate costs and unallocated interest	1	3	11	—	—	—	—	—	(15)	—	—	—	
Investment return variances and economic assumption changes on long-term business	312	—	(58)	2	(230)	—	(24)	—	—	2	(279)	(277)	
Short-term fluctuation in return on investments backing non-long-term business	—	47	36	—	13	77	—	—	133	306	—	306	
Economic assumption changes on general insurance and health business	—	(26)	—	—	—	—	—	—	(1)	(27)	—	(27)	
Impairment of goodwill, associates and joint ventures	—	—	—	—	48	—	29	—	—	77	—	77	
Amortisation and impairment of intangibles	9	—	—	—	9	6	1	11	7	43	6	49	
(Profit)/loss on the disposal and remeasurement of subsidiaries and associates	(88)	—	—	—	(53)	—	(39)	—	—	(180)	(91)	(271)	
Integration and restructuring costs	19	12	2	1	4	4	3	15	104	164	2	166	
Operating profit/(loss) before tax attributable to shareholders	442	253	216	89	165	147	32	32	(368)	1,008	125	1,133	

1 Total reported income, excluding inter-segment revenue, includes £7,012 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

2 Impairment losses, and reversal of such losses, recognised directly in other comprehensive income were £nil million and £nil million respectively.

3 Aviva Investors operating profit includes £1 million profit relating to the Aviva Investors Pooled Pensions business.

4 Other group activities include Group Reinsurance.

B5 – Segmental information continued

(a) (ii) Segmental income statement for the six month period ended 30 June 2012 – (Restated)⁶

	United Kingdom & Ireland				Europe								Total £m
	Life £m	GI £m	France £m	Poland £m	Italy ² , Spain and Other £m	Canada £m	Asia £m	Aviva Investors ³ £m	Other Group activities ⁴ £m	Continuing operations £m	Discontinued operations £m		
Gross written premiums	3,089	2,565	2,562	217	1,869	1,121	351	—	36	11,810	1,955	13,765	
Premiums ceded to reinsurers	(413)	(240)	(26)	(4)	(61)	(36)	(53)	—	(6)	(839)	(64)	(903)	
Internal reinsurance revenue	(3)	(7)	(2)	(1)	(8)	(4)	—	—	25	—	—	—	
Net written premiums	2,673	2,318	2,534	212	1,800	1,081	298	—	55	10,971	1,891	12,862	
Net change in provision for unearned premiums	(10)	(50)	(85)	(2)	(8)	(26)	(6)	—	(25)	(212)	—	(212)	
Net earned premiums	2,663	2,268	2,449	210	1,792	1,055	292	—	30	10,759	1,891	12,650	
Fee and commission income	219	87	63	28	62	19	5	138	5	626	6	632	
	2,882	2,355	2,512	238	1,854	1,074	297	138	35	11,385	1,897	13,282	
Net investment income/(expense)	2,901	250	2,998	151	1,149	78	84	(2)	17	7,626	1,093	8,719	
Inter-segment revenue	—	—	—	—	—	—	—	52	—	52	37	89	
Share of (loss)/profit of joint ventures and associates	14	—	4	—	—	—	6	2	(99)	(73)	—	(73)	
(Loss)/profit on the disposal and remeasurement of subsidiaries and associates	—	(21)	—	—	(4)	—	—	—	(5)	(30)	—	(30)	
Segmental income¹	5,797	2,584	5,514	389	2,999	1,152	387	190	(52)	18,960	3,027	21,987	
Claims and benefits paid, net of recoveries from reinsurers	(4,750)	(1,475)	(2,785)	(160)	(2,284)	(608)	(202)	—	(26)	(12,290)	(1,356)	(13,646)	
Change in insurance liabilities, net of reinsurance	1,156	40	(375)	(95)	424	(2)	(47)	—	5	1,106	(1,044)	62	
Change in investment contract provisions	(681)	—	(168)	10	(178)	—	—	(23)	—	(1,040)	(46)	(1,086)	
Change in unallocated divisible surplus	(355)	—	(1,537)	(5)	(577)	—	(32)	—	—	(2,506)	—	(2,506)	
Amortisation of acquired value of in-force business	(7)	—	(9)	(1)	(5)	—	(1)	—	—	(23)	(72)	(95)	
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(41)	(6)	(1)	(1)	(34)	(9)	(3)	(5)	(25)	(125)	(906)	(1,031)	
Other operating expenses	(761)	(976)	(384)	(53)	(270)	(361)	(79)	(167)	(318)	(3,369)	(237)	(3,606)	
Impairment losses on AVIF and tangible assets ²	(22)	(10)	—	—	1	—	—	—	—	(31)	(10)	(41)	
Inter-segment expenses	(47)	(1)	—	(2)	—	(2)	—	—	—	(52)	(37)	(89)	
Finance costs	(115)	(20)	(2)	—	(1)	(4)	—	(3)	(176)	(321)	(10)	(331)	
Segmental expenses	(5,623)	(2,448)	(5,261)	(307)	(2,924)	(986)	(364)	(198)	(540)	(18,651)	(3,718)	(22,369)	
Profit/(loss) before tax	174	136	253	82	75	166	23	(8)	(592)	309	(691)	(382)	
Tax attributable to policyholders' returns	(20)	—	—	—	—	—	(1)	—	—	(21)	—	(21)	
Profit/(loss) before tax attributable to shareholders	154	136	253	82	75	166	22	(8)	(592)	288	(691)	(403)	
Adjusted for non-operating items:													
Reclassification of corporate costs and unallocated interest	4	17	13	—	3	—	—	1	(38)	—	—	—	
Investment return variances and economic assumption changes on long-term business	302	—	(44)	(4)	56	—	(5)	—	—	305	(93)	212	
Short-term fluctuation in return on investments backing non-long- term business	—	(23)	(33)	—	(10)	(3)	—	—	38	(31)	—	(31)	
Economic assumption changes on general insurance and health business	—	18	—	—	—	(1)	—	—	1	18	—	18	
Impairment of goodwill, associates and joint ventures	—	—	—	—	21	—	—	—	(205)	(184)	787	603	
Amortisation and impairment of intangibles	9	5	—	—	7	6	1	3	16	47	117	164	
(Profit)/loss on the disposal and remeasurement of subsidiaries and associates	—	21	—	—	4	—	—	—	5	30	—	30	
Integration and restructuring costs	14	47	6	1	3	6	2	19	84	182	4	186	
Share of Delta Lloyd's non- operating items (before tax), as an associate	—	—	—	—	—	—	—	—	523	523	—	523	
Share of Delta Lloyd's tax expense, as an associate	—	—	—	—	—	—	—	—	(107)	(107)	—	(107)	
Operating profit/(loss) before tax attributable to shareholders	483	221	195	79	159	174	20	15	(275)	1,071	124	1,195	

¹ Total reported income, excluding inter-segment revenue, includes £7,682 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

² Impairment losses, and reversal of such losses, recognised directly in other comprehensive income were £nil million and £nil million respectively.

³ Aviva Investors operating profit includes £1 million profit relating to the Aviva Investors Pooled Pensions business.

⁴ Other group activities include Group Reinsurance.

⁵ Following a review of the classification of contracts issued by the Group's Italian long-term business, certain portfolios have been reclassified from participating insurance to participating investment contracts. There is no impact on the results presented for the period to 30 June 2012 as a result of this reclassification.

⁶ Restated for the adoption of revised IAS19 and IFRS 10. See note B2 for further details.

B5 – Segmental information continued

(a) (iii) Segmental income statement for the year ended 31 December 2012 – (Restated)⁵

	United Kingdom & Ireland		Europe		Canada		Asia	Aviva Investors ³	Other Group activities ⁴	Continuing operations	Discontinued operations	Total
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	£m	£m	£m	£m	£m	£m	£m
Gross written premiums	6,363	4,951	4,763	441	3,195	2,248	740	—	43	22,744	3,796	26,540
Premiums ceded to reinsurers	(740)	(450)	(55)	(6)	(150)	(63)	(101)	—	(6)	(1,571)	(207)	(1,778)
Internal reinsurance revenue	—	(11)	(6)	(2)	(9)	(9)	(3)	—	40	—	—	—
Net written premiums	5,623	4,490	4,702	433	3,036	2,176	636	—	77	21,173	3,589	24,762
Net change in provision for unearned premiums	(15)	63	(28)	(3)	3	(31)	(5)	—	—	(16)	—	(16)
Net earned premiums	5,608	4,553	4,674	430	3,039	2,145	631	—	77	21,157	3,589	24,746
Fee and commission income	448	180	121	57	131	42	10	279	5	1,273	23	1,296
	6,056	4,733	4,795	487	3,170	2,187	641	279	82	22,430	3,612	26,042
Net investment income/(expense)	8,561	514	8,047	401	3,136	140	283	(8)	67	21,141	2,241	23,382
Inter-segment revenue	—	—	—	—	—	—	—	134	—	134	75	209
Share of (loss)/profit of joint ventures and associates	(15)	—	8	2	2	—	(3)	7	(256)	(255)	—	(255)
(Loss)/profit on the disposal and remeasurement of subsidiaries and associates	(2)	(21)	—	—	7	—	12	—	(160)	(164)	(2,359)	(2,523)
Segmental income¹	14,600	5,226	12,850	890	6,315	2,327	933	412	(267)	43,286	3,569	46,855
Claims and benefits paid, net of recoveries from reinsurers	(9,224)	(2,915)	(5,272)	(341)	(3,934)	(1,268)	(589)	—	(58)	(23,601)	(2,721)	(26,322)
Change in insurance liabilities, net of reinsurance	404	(23)	(880)	(241)	359	(40)	(17)	—	8	(430)	(1,566)	(1,996)
Change in investment contract provisions	(3,151)	—	(983)	19	(296)	—	—	(39)	—	(4,450)	(77)	(4,527)
Change in unallocated divisible surplus	(347)	—	(4,359)	(30)	(1,491)	—	(89)	—	—	(6,316)	—	(6,316)
Amortisation of acquired value of in-force business	(13)	—	(18)	(2)	(9)	—	(1)	—	—	(43)	(183)	(226)
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(107)	(9)	(3)	(1)	(129)	(17)	(6)	(9)	(55)	(336)	(916)	(1,252)
Other operating expenses	(1,449)	(1,974)	(850)	(112)	(537)	(745)	(147)	(357)	(676)	(6,847)	(691)	(7,538)
Impairment losses on AVIF and tangible assets ²	(34)	(43)	(1)	—	(3)	—	1	—	—	(80)	(15)	(95)
Inter-segment expenses	(122)	(3)	—	(5)	—	(4)	—	—	—	(134)	(75)	(209)
Finance costs	(252)	(21)	(2)	—	(2)	(8)	—	(5)	(363)	(653)	(21)	(674)
Segmental expenses	(14,295)	(4,988)	(12,368)	(713)	(6,042)	(2,082)	(848)	(410)	(1,144)	(42,890)	(6,265)	(49,155)
Profit/(loss) before tax	305	238	482	177	273	245	85	2	(1,411)	396	(2,696)	(2,300)
Tax attributable to policyholders' returns	(198)	—	—	—	—	—	(23)	—	—	(221)	—	(221)
Profit/(loss) before tax attributable to shareholders	107	238	482	177	273	245	62	2	(1,411)	175	(2,696)	(2,521)
Adjusted for non-operating items:												
Reclassification of corporate costs and unallocated interest	7	32	25	—	6	—	—	1	(71)	—	—	—
Investment return variances and economic assumption changes on long-term business	663	—	(28)	(13)	—	—	(2)	—	—	620	(342)	278
Short-term fluctuation in return on investments backing non-long-term business	—	(17)	(68)	(1)	(43)	10	—	—	112	(7)	—	(7)
Economic assumption changes on general insurance and health business	—	20	—	—	—	—	—	—	1	21	—	21
Impairment of goodwill, associates and joint ventures	(1)	—	—	—	108	—	—	—	(47)	60	782	842
Amortisation and impairment of intangibles	54	6	—	—	16	11	1	6	34	128	129	257
(Profit)/loss on the disposal and remeasurement of subsidiaries and associates	2	21	—	—	(7)	—	(12)	—	160	164	2,359	2,523
Integration and restructuring costs	71	170	11	5	12	11	4	33	144	461	7	468
Share of Delta Lloyd's non-operating items (before tax), as an associate	—	—	—	—	—	—	—	—	523	523	—	523
Share of Delta Lloyd's tax expense, as an associate	—	—	—	—	—	—	—	—	(107)	(107)	—	(107)
Operating profit/(loss) before tax attributable to shareholders	903	470	422	168	365	277	53	42	(662)	2,038	239	2,277

¹ Total reported income, excluding inter-segment revenue, includes £18,582 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

² Impairment losses, and reversal of such losses, recognised directly in other comprehensive income were £nil million and £nil million respectively.

³ Aviva Investors operating profit includes £3 million profit relating to Aviva Investors Pooled Pensions business.

⁴ Other group activities include Group Reinsurance.

⁵ Restated for the adoption of revised IAS19 and IFRS 10. See note B2 for further details.

B5 – Segmental information continued**(a) (iv) Segmental statement of financial position as at 30 June 2013**

	United Kingdom & Ireland		Europe					Aviva Investors £m	United States £m	Other Group activities £m	Total £m
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	Canada £m	Asia £m				
Goodwill	—	1,043	—	9	314	51	58	29	—	—	1,504
Acquired value of in-force business and intangible assets	125	3	131	9	661	56	4	57	—	49	1,095
Interests in, and loans to, joint ventures and associates	957	—	158	11	112	—	260	4	—	—	1,502
Property and equipment	84	21	232	2	7	21	5	1	—	22	395
Investment property	6,629	8	1,531	—	2	—	—	1,016	—	646	9,832
Loans	22,871	343	869	—	25	86	31	—	—	—	24,225
Financial investments	90,286	4,130	64,579	2,817	20,431	3,719	2,884	774	—	3,050	192,670
Deferred acquisition costs	1,317	511	234	21	118	282	5	—	—	—	2,488
Other assets	16,993	4,908	12,396	223	2,131	1,205	404	530	—	5,129	43,919
Assets of operations classified as held for sale	—	—	—	—	2,882	—	13	—	38,808	9	41,712
Total assets	139,262	10,967	80,130	3,092	26,683	5,420	3,664	2,411	38,808	8,905	319,342
Insurance liabilities											
Long term business and outstanding claims provisions	69,335	5,751	15,829	2,466	9,792	2,598	2,384	—	—	46	108,201
Unearned premiums	259	2,240	483	46	344	1,163	70	—	—	5	4,610
Other insurance liabilities	—	87	60	—	1	99	—	—	—	2	249
Liability for investment contracts	51,386	—	50,031	44	9,953	—	—	1,871	—	—	113,285
Unallocated divisible surplus	2,347	—	3,959	67	34	—	162	—	—	—	6,569
Net asset value attributable to unitholders	320	—	4,506	—	341	—	—	—	—	7,173	12,340
External borrowings	2,720	—	—	—	71	—	—	—	—	5,463	8,254
Other liabilities, including inter-segment liabilities	6,630	(3,948)	3,020	113	868	423	235	304	—	5,705	13,350
Liabilities of operations classified as held for sale	—	—	—	—	2,834	—	—	—	38,285	1	41,120
Total liabilities	132,997	4,130	77,888	2,736	24,238	4,283	2,851	2,175	38,285	18,395	307,978
Total equity											11,364
Total equity and liabilities											319,342
Capital expenditure (excluding business combinations)	20	9	1	—	5	17	—	10	5	5	72

B5 – Segmental information continued

(a) (v) Segmental statement of financial position as at 30 June 2012 – (Restated)²

	United Kingdom & Ireland		Europe								
	Life £m	GI £m	France £m	Poland £m	Italy ¹ , Spain and Other £m	Canada £m	Asia £m	Aviva Investors £m	United States £m	Other Group activities £m	Total £m
Goodwill	—	1,036	—	8	612	50	60	28	—	—	1,794
Acquired value of in-force business and intangible assets	177	4	141	12	644	44	9	44	526	48	1,649
Interests in, and loans to, joint ventures and associates	1,196	—	148	9	117	—	520	7	1	609	2,607
Property and equipment	172	15	48	3	19	18	9	12	116	33	445
Investment property	7,098	17	1,270	—	2	—	—	1,153	6	755	10,301
Loans	22,281	466	844	—	15	81	39	—	3,192	—	26,918
Financial investments	86,853	4,163	55,670	2,584	23,165	3,789	2,854	739	31,731	1,999	213,547
Deferred acquisition costs	1,463	560	207	18	131	277	5	—	1,839	6	4,506
Other assets	17,929	6,529	12,684	163	2,522	1,118	393	602	1,873	1,228	45,041
Assets of operations classified as held for sale	3,548	—	—	—	400	—	14	—	—	—	3,962
Total assets	140,717	12,790	71,012	2,797	27,627	5,377	3,903	2,585	39,284	4,678	310,770
Insurance liabilities											
Long term business and outstanding claims provisions	70,433	5,801	13,636	2,271	11,825	2,502	2,472	—	31,573	34	140,547
Unearned premiums	234	2,388	426	38	354	1,140	66	—	—	30	4,676
Other insurance liabilities	—	94	72	—	—	97	—	—	—	2	265
Liability for investment contracts	47,085	—	46,026	51	12,039	—	—	2,001	2,699	—	109,901
Unallocated divisible surplus	2,063	—	1,759	59	(823)	—	104	—	—	—	3,162
Net asset value attributable to unitholders	448	—	4,296	—	19	—	—	—	—	4,511	9,274
External borrowings	2,812	—	—	—	89	—	—	—	166	5,045	8,112
Other liabilities, including inter-segment liabilities	8,263	(4,640)	2,678	90	1,272	412	231	289	2,385	5,613	16,593
Liabilities of operations classified as held for sale	3,285	—	—	—	350	—	—	—	—	—	3,635
Total liabilities	134,623	3,643	68,893	2,509	25,125	4,151	2,873	2,290	36,823	15,235	296,165
Total equity											14,605
Total equity and liabilities											310,770
Capital expenditure (excluding business combinations)	36	2	1	1	6	5	2	9	8	11	81

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, certain portfolios have been reclassified from participating insurance to participating investment contracts. There is no impact on the results presented for the period to 30 June 2012 as a result of this reclassification.

² The statement of financial position has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for the six months to 30 June 2012 as a result of this restatement.

B5 – Segmental information continued**(a) (vi) Segmental statement of financial position as at 31 December 2012 - (Restated)¹**

	United Kingdom & Ireland		Europe								
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	Canada £m	Asia £m	Aviva Investors £m	United States £m	Other Group activities £m	Total £m
Goodwill	—	1,037	—	9	342	50	55	27	—	—	1,520
Acquired value of in-force business and intangible assets	140	3	133	10	633	49	5	56	—	55	1,084
Interests in, and loans to, joint ventures and associates	1,132	—	148	10	116	—	245	4	—	—	1,655
Property and equipment	91	13	220	2	8	21	6	5	—	25	391
Investment property	6,774	8	1,342	—	2	—	—	1,093	—	720	9,939
Loans	23,193	369	848	—	14	83	30	—	—	—	24,537
Financial investments	90,182	3,946	59,853	2,920	21,917	3,766	2,808	759	—	2,868	189,019
Deferred acquisition costs	1,357	519	211	19	117	275	5	—	—	—	2,503
Other assets	16,756	5,074	11,421	201	2,561	1,053	335	436	—	3,655	41,492
Assets of operations classified as held for sale	3,490	—	—	—	2,762	—	126	28	36,187	10	42,603
Total assets	143,115	10,969	74,176	3,171	28,472	5,297	3,615	2,408	36,187	7,333	314,743
Insurance liabilities											
Long term business and outstanding claims provisions	71,282	5,846	14,194	2,517	9,733	2,494	2,285	—	—	51	108,402
Unearned premiums	238	2,274	369	41	335	1,127	55	—	—	2	4,441
Other insurance liabilities	—	86	61	—	1	98	—	—	—	2	248
Liability for investment contracts	49,719	—	46,952	47	11,893	—	—	1,883	—	—	110,494
Unallocated divisible surplus	2,055	—	4,591	86	38	—	161	—	—	—	6,931
Net asset value attributable to unitholders	320	—	3,351	—	278	—	—	—	—	6,310	10,259
External borrowings	2,934	—	—	—	101	—	—	—	—	5,144	8,179
Other liabilities, including inter- segment liabilities	7,439	(4,696)	2,563	99	936	467	236	255	—	5,719	13,018
Liabilities of operations classified as held for sale	3,257	—	—	—	2,304	—	—	13	35,835	2	41,411
Total liabilities	137,244	3,510	72,081	2,790	25,619	4,186	2,737	2,151	35,835	17,230	303,383
Total equity											11,360
Total equity and liabilities											314,743
Capital expenditure (excluding business combinations)	63	3	176	2	17	21	3	24	29	39	377

¹ The statement of financial position has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for the year to 31 December 2012 as a result of this restatement.

(b) Further analysis by products and services

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

Long-term business

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

General insurance and health

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

Fund management

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

Other

Other includes, service companies, head office expenses, such as Group treasury and finance functions, and certain financing costs and taxes not allocated to business segments.

Discontinued operations and Delta Lloyd

In the products and services analysis, the results of US Life (including the related internal asset management business) for all periods are presented as discontinued operations. Between 1 January 2012 and 5 July 2012, the Groups' share of the results of its interest in Delta Lloyd are shown as an associate and, from 5 July 2012 to the year-end, as a financial investment, are shown only within other activities within continuing operations.

B5 – Segmental information continued**(b) (i) Segmental income statement – products and services for the six month period ended 30 June 2013**

	Long-term business £m	General insurance and health ² £m	Fund management £m	Other £m	Total £m
Gross written premiums ¹	6,553	4,898	—	—	11,451
Premiums ceded to reinsurers	(465)	(349)	—	—	(814)
Net written premiums	6,088	4,549	—	—	10,637
Net change in provision for unearned premiums	—	(89)	—	—	(89)
Net earned premiums	6,088	4,460	—	—	10,548
Fee and commission income	312	41	185	129	667
	6,400	4,501	185	129	11,215
Net investment income/(expense)	3,615	125	2	218	3,960
Inter-segment revenue	—	—	48	—	48
Share of (loss)/profit of joint ventures and associates	(15)	1	—	—	(14)
Profit/(loss) on the disposal and remeasurement of subsidiaries and associates	175	—	—	5	180
Segmental income	10,175	4,627	235	352	15,389
Claims and benefits paid, net of recoveries from reinsurers	(8,573)	(2,885)	—	—	(11,458)
Change in insurance liabilities, net of reinsurance	1,917	(8)	—	—	1,909
Change in investment contract provisions	(1,961)	—	—	—	(1,961)
Change in unallocated divisible surplus	585	—	—	—	585
Amortisation of acquired value of in-force business	(19)	—	—	—	(19)
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(62)	(17)	(11)	(19)	(109)
Other operating expenses	(990)	(1,439)	(180)	(769)	(3,378)
Impairment losses on AVIF and tangible assets	—	(10)	—	—	(10)
Inter-segment expenses	(44)	(4)	—	—	(48)
Finance costs	(76)	(6)	(28)	(185)	(295)
Segmental expenses	(9,223)	(4,369)	(219)	(973)	(14,784)
Profit/(loss) before tax from continuing operations	952	258	16	(621)	605
Tax attributable to policyholder returns	18	—	—	—	18
Profit/(loss) before tax attributable to shareholders	970	258	16	(621)	623
Adjusted for:					
Non-operating items from continuing operations	(60)	170	26	249	385
Operating profit/(loss) before tax attributable to shareholders' profits from continuing operations	910	428	42	(372)	1,008
Operating profit/(loss) before tax attributable to shareholders' profits from discontinued operations	111	—	22	(8)	125
Operating profit/(loss) before tax attributable to shareholders' profits	1,021	428	64	(380)	1,133

¹ Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £85 million, of which £30 million relates to property and liability insurance and £55 million relates to long-term business.
² General insurance and health business segment includes gross written premiums of £650 million relating to health business. The remaining business relates to property and liability insurance.

B5 – Segmental information continued**(b) (ii) Segmental income statement – products and services for the six month period ended 30 June 2012 – (Restated)³**

	Long-term business £m	General insurance and health ² £m	Fund management £m	Other £m	Total £m
Gross written premiums ¹	6,855	4,955	—	—	11,810
Premiums ceded to reinsurers	(499)	(340)	—	—	(839)
Net written premiums	6,356	4,615	—	—	10,971
Net change in provision for unearned premiums	—	(212)	—	—	(212)
Net earned premiums	6,356	4,403	—	—	10,759
Fee and commission income	302	30	171	123	626
	6,658	4,433	171	123	11,385
Net investment income/(expense)	7,199	422	2	3	7,626
Inter-segment revenue	—	—	47	—	47
Share of profit/(loss) of joint ventures and associates	25	1	—	(99)	(73)
(Loss)/profit on the disposal and remeasurement of subsidiaries and associates	—	(21)	—	(9)	(30)
Segmental income	13,882	4,835	220	18	18,955
Claims and benefits paid, net of recoveries from reinsurers	(9,443)	(2,847)	—	—	(12,290)
Change in insurance liabilities, net of reinsurance	1,095	11	—	—	1,106
Change in investment contract provisions	(1,040)	—	—	—	(1,040)
Change in unallocated divisible surplus	(2,506)	—	—	—	(2,506)
Amortisation of acquired value of in-force business	(23)	—	—	—	(23)
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(74)	(12)	(5)	(34)	(125)
Other operating expenses	(1,181)	(1,557)	(191)	(440)	(3,369)
Impairment losses on AVIF and tangible assets	(21)	(10)	—	—	(31)
Inter-segment expenses	(44)	(3)	—	—	(47)
Finance costs	(87)	(13)	(29)	(192)	(321)
Segmental expenses	(13,324)	(4,431)	(225)	(666)	(18,646)
Profit/(loss) before tax from continuing operations	558	404	(5)	(648)	309
Tax attributable to policyholder returns	(21)	—	—	—	(21)
Profit/(loss) before tax attributable to shareholders	537	404	(5)	(648)	288
Adjusted for:					
Non-operating items from continuing operations (excluding Delta Lloyd as an associate)	360	58	23	(74)	367
Share of Delta Lloyd's non-operating items (before tax), as an associate	—	—	—	523	523
Share of Delta Lloyd's tax expense, as an associate	—	—	—	(107)	(107)
Operating profit/(loss) before tax attributable to shareholders' profits from continuing operations	897	462	18	(306)	1,071
Operating profit/(loss) before tax attributable to shareholders' profits from discontinued operations	113	—	20	(9)	124
Operating profit/(loss) before tax attributable to shareholders' profits	1,010	462	38	(315)	1,195

¹ Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £137 million, of which £83 million relates to property and liability insurance and £54 million relates to long-term business.

² General insurance and health business segment includes gross written premiums of £610 million relating to health business. The remaining business relates to property and liability insurance.

³ Restated for the adoption of revised IAS19 and IFRS10. See note B2 for further details.

B5 – Segmental information continued**(b) (iii) Segmental income statement – products and services for the year ended 31 December 2012 – (Restated)³**

	Long-term business £m	General insurance and health ² £m	Fund management £m	Other £m	Total £m
Gross written premiums ¹	13,209	9,535	—	—	22,744
Premiums ceded to reinsurers	(930)	(641)	—	—	(1,571)
Net written premiums	12,279	8,894	—	—	21,173
Net change in provision for unearned premiums	—	(16)	—	—	(16)
Net earned premiums	12,279	8,878	—	—	21,157
Fee and commission income	632	65	331	245	1,273
	12,911	8,943	331	245	22,430
Net investment income/(expense)	20,236	823	6	76	21,141
Inter-segment revenue	—	—	127	—	127
Share of (loss)/profit of joint ventures and associates	(5)	1	3	(254)	(255)
Profit/(loss) on the disposal and remeasurement of subsidiaries and associates	(6)	(21)	—	(137)	(164)
Segmental income	33,136	9,746	467	(70)	43,279
Claims and benefits paid, net of recoveries from reinsurers	(17,839)	(5,762)	—	—	(23,601)
Change in insurance liabilities, net of reinsurance	(359)	(71)	—	—	(430)
Change in investment contract provisions	(4,450)	—	—	—	(4,450)
Change in unallocated divisible surplus	(6,316)	—	—	—	(6,316)
Amortisation of acquired value of in-force business	(43)	—	—	—	(43)
Impairment of goodwill and other intangibles, depreciation and other amortisation expense	(236)	(25)	(10)	(65)	(336)
Other operating expenses	(2,457)	(3,170)	(390)	(830)	(6,847)
Impairment losses on AVIF and tangible assets	(37)	(43)	—	—	(80)
Inter-segment expenses	(116)	(11)	—	—	(127)
Finance costs	(198)	(28)	(56)	(371)	(653)
Segmental expenses	(32,051)	(9,110)	(456)	(1,266)	(42,883)
Profit/(loss) before tax from continuing operations	1,085	636	11	(1,336)	396
Tax attributable to policyholder returns	(221)	—	—	—	(221)
Profit/(loss) before tax attributable to shareholders	864	636	11	(1,336)	175
Adjusted for:					
Non-operating items from continuing operations (excluding Delta Lloyd as an associate)	967	258	40	182	1,447
Share of Delta Lloyd's non-operating items (before tax), as an associate	—	—	—	523	523
Share of Delta Lloyd's tax expense, as an associate	—	—	—	(107)	(107)
Operating profit/(loss) before tax attributable to shareholders' profits from continuing operations	1,831	894	51	(738)	2,038
Operating profit/(loss) before tax attributable to shareholders' profits from discontinued operations	200	—	55	(16)	239
Operating profit/(loss) before tax attributable to shareholders' profits	2,031	894	106	(754)	2,277

¹ Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £370 million, of which £130 million relates to property and liability insurance and £240 million relates to long-term business.

² General insurance and health business segment includes gross written premiums of £1,164 million relating to health business. The remaining business relates to property and liability insurance.

³ Restated for the adoption of revised IAS19 and IFRS10. See note B2 for further details.

B5 – Segmental information continued**(c) (i) Segmental statement of financial position as at 30 June 2013**

	Long-term business £m	General insurance and health £m	Fund management £m	Other £m	Total £m
Goodwill	341	1,060	29	74	1,504
Acquired value of in-force business and intangible assets	802	158	57	78	1,095
Interests in, and loans to, joint ventures and associates	1,492	6	4	—	1,502
Property and equipment	253	105	1	36	395
Investment property	9,041	145	—	646	9,832
Loans	23,785	429	—	11	24,225
Financial investments	179,151	10,563	29	2,927	192,670
Deferred acquisition costs	1,521	955	12	—	2,488
Other assets	29,468	5,606	505	8,340	43,919
Assets of operations classified as held for sale	41,665	9	38	—	41,712
Total assets	287,519	19,036	675	12,112	319,342
Gross insurance liabilities	97,754	15,306	—	—	113,060
Gross liabilities for investment contracts	113,285	—	—	—	113,285
Unallocated divisible surplus	6,569	—	—	—	6,569
Net asset value attributable to unitholders	5,167	—	—	7,173	12,340
External borrowings	2,776	—	—	5,478	8,254
Other liabilities, including inter-segment liabilities	8,903	(3,243)	382	7,308	13,350
Liabilities of operations classified as held for sale	40,912	1	13	194	41,120
Total liabilities	275,366	12,064	395	20,153	307,978
Total equity					11,364
Total equity and liabilities					319,342

(c) (ii) Segmental statement of financial position as at 30 June 2012 – (Restated) ²

	Long-term ¹ business £m	General insurance and health £m	Fund management £m	Other £m	Total £m
Goodwill	627	1,066	28	73	1,794
Acquired value of in-force business and intangible assets	1,390	137	45	77	1,649
Interests in, and loans to, joint ventures and associates	1,991	6	—	610	2,607
Property and equipment	343	35	12	55	445
Investment property	9,402	144	—	755	10,301
Loans	26,370	423	—	125	26,918
Financial investments	201,021	9,516	45	2,965	213,547
Deferred acquisition costs	3,502	991	13	—	4,506
Other assets	33,024	7,456	540	4,021	45,041
Assets of operations classified as held for sale	3,962	—	—	—	3,962
Total assets	281,632	19,774	683	8,681	310,770
Gross insurance liabilities	130,308	15,180	—	—	145,488
Gross liabilities for investment contracts	109,901	—	—	—	109,901
Unallocated divisible surplus	3,162	—	—	—	3,162
Net asset value attributable to unitholders	4,763	—	—	4,511	9,274
External borrowings	2,881	—	—	5,231	8,112
Other liabilities, including inter-segment liabilities	12,086	(2,827)	383	6,951	16,593
Liabilities of operations classified as held for sale	3,635	—	—	—	3,635
Total liabilities	266,736	12,353	383	16,693	296,165
Total equity					14,605
Total equity and liabilities					310,770

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, certain portfolios have been reclassified from participating insurance to participating investment contracts. There is no impact on the results for the 6 months to 30 June 2012.

² The statement of financial position has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for the six months to 30 June 2012 as a result of this restatement.

B5 – Segmental information continued**(c) (iii) Segmental statement of financial position as at 31 December 2012 – (Restated)¹**

	Long-term business £m	General insurance and health £m	Fund management £m	Other £m	Total £m
Goodwill	361	1,060	27	72	1,520
Acquired value of in-force business and intangible assets	799	146	56	83	1,084
Interests in, and loans to, joint ventures and associates	1,646	5	4	—	1,655
Property and equipment	253	94	5	39	391
Investment property	9,080	139	—	720	9,939
Loans	24,085	433	—	19	24,537
Financial investments	175,889	9,266	39	3,825	189,019
Deferred acquisition costs	1,550	939	14	—	2,503
Other assets	29,185	7,237	453	4,617	41,492
Assets of operations classified as held for sale	42,564	11	28	—	42,603
Total assets	285,412	19,330	626	9,375	314,743
Gross insurance liabilities	98,086	15,005	—	—	113,091
Gross liabilities for investment contracts	110,494	—	—	—	110,494
Unallocated divisible surplus	6,931	—	—	—	6,931
Net asset value attributable to unitholders	3,949	—	—	6,310	10,259
External borrowings	3,019	—	—	5,160	8,179
Other liabilities, including inter-segment liabilities	8,734	(2,661)	334	6,611	13,018
Liabilities of operations classified as held for sale	41,237	2	13	159	41,411
Total liabilities	272,450	12,346	347	18,240	303,383
Total equity					11,360
Total equity and liabilities					314,743

¹ The statement of financial position has been restated following the adoption of IFRS 10 'Consolidated Financial Statements' - see note B2 for details. There is no impact on the results for the year to 31 December 2012 as a result of this restatement.

B6 – Tax

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

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

(i) The total tax charge comprises:

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full year 2012 £m
Current tax			
For this period	212	220	531
Prior period adjustments	(2)	(10)	(47)
Total current tax from continuing operations	210	210	484
Deferred tax			
Origination and reversal of temporary differences	(13)	8	(33)
Changes in tax rates or tax laws	—	(18)	(12)
Write-down of deferred tax assets	2	6	43
Total deferred tax from continuing operations	(11)	(4)	(2)
Total tax charged to income statement from continuing operations	199	206	482
Total tax charged to income statement from discontinued operations	117	36	152
Total tax charged to income statement	316	242	634

(ii) The Group, as a proxy for policyholders in the UK, Ireland and Singapore, is required to record taxes on investment income and gains each year. Accordingly, the tax benefit or expense attributable to UK, Ireland and Singapore insurance policyholder returns is included in the tax charge. The tax credit attributable to policyholders' returns included in the charge above is £18 million (HY12: £21 million charge; FY12: £221 million charge).

(iii) The tax charge/(credit) can be analysed as follows:

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full year 2012 £m
UK tax	(57)	26	(1)
Overseas tax	373	216	635
	316	242	634

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

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

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full year 2012 £m
Current tax from continuing operations			
In respect of pensions and other post-retirement obligations	(7)	(9)	(28)
In respect of foreign exchange movements	20	(10)	(17)
	13	(19)	(45)
Deferred tax from continuing operations			
In respect of pensions and other post-retirement obligations	(58)	43	(160)
In respect of fair value gains on owner-occupied properties	—	—	(1)
In respect of unrealised gains on investments	(3)	3	9
	(61)	46	(152)
Tax (credited)/charged to other comprehensive income arising from continuing operations	(48)	27	(197)
Tax (credited)/charged to other comprehensive income arising from discontinued operations	(126)	74	107
Total tax (credited)/charged to other comprehensive income	(174)	101	(90)

B6 – Tax continued**(c) Tax credited to equity**

Tax credited directly to equity in the period amounted to £4 million (*HY12: £nil; FY12: £18 million*) and is wholly in respect of coupon payments on direct capital instruments and fixed rate tier 1 notes.

(d) Tax reconciliation

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

	6 months 2013			Restated 6 months 2012			Restated Full year 2012		
	Shareholder £m	Policyholder £m	Total £m	Shareholder £m	Policyholder £m	Total £m	Shareholder £m	Policyholder £m	Total £m
Total profit/(loss) before tax	1,110	(18)	1,092	(403)	21	(382)	(2,521)	221	(2,300)
Tax calculated at standard UK corporation tax rate of 23.25% (2012: 24.5%)	258	(4)	254	(99)	5	(94)	(618)	54	(564)
Reconciling items									
Different basis of tax - policyholders	—	(14)	(14)	—	17	17	—	170	170
Adjustment to tax charge in respect of prior periods	1	—	1	2	—	2	(20)	—	(20)
Non-assessable income and items not taxed at the full statutory rate	(38)	—	(38)	(63)	—	(63)	(86)	—	(86)
Non-taxable(profit)/loss on sale of subsidiaries and associates	(64)	—	(64)	6	—	6	872	—	872
Disallowable expenses	55	—	55	327	—	327	418	—	418
Different local basis of tax on overseas profits	110	—	110	(34)	(1)	(35)	(142)	(3)	(145)
Change in future local statutory tax rates	—	—	—	(18)	—	(18)	(13)	—	(13)
Movement in deferred tax not recognised	21	—	21	31	—	31	(69)	—	(69)
Tax effect of (profit)/loss from associates and joint ventures	(9)	—	(9)	71	—	71	75	—	75
Other	—	—	—	(2)	—	(2)	(4)	—	(4)
Total tax charged/(credited) to income statement	334	(18)	316	221	21	242	413	221	634

The tax (credit)/charge attributable to policyholders' returns is removed from the Group's total profit/(loss) before tax in arriving at the Group's profits/(losses) before tax attributable to shareholders' profits. As the net of tax profits attributable to with-profit and unit-linked policyholders is zero, the Group's pre-tax (loss)/profit attributable to policyholders is an amount equal and opposite to the tax (credit)/charge attributable to policyholders included in the total tax charge. The difference between the policyholder tax (credit)/charge and the impact of this item in the tax reconciliation can be explained as follows:

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Tax attributable to policyholder returns	(18)	21	221
UK corporation tax at a rate of 23.25% (2012: 24.5%) in respect of the policyholder tax deduction	4	(5)	(54)
Different local basis of tax of overseas profits	—	1	3
Different basis of tax – policyholders per tax reconciliation	(14)	17	170

The UK corporation tax rate reduced to 23% from 1 April 2013. This rate has been used in the calculation of the UK's deferred tax assets and liabilities for the period.

Legislation has been substantively enacted in July 2013 to reduce the main rate of UK corporation tax to 21% from 1 April 2014, with a further reduction to 20% from 1 April 2015. The aggregate impact of the reduction in rate from 23% to 20% would reduce the deferred tax assets and liabilities and increase IFRS net assets by approximately £17 million and will be recognised in the second half of the year.

B7 – Earnings per share**(a) Basic earnings per share**

(i) The profit attributable to ordinary shareholders is:

	6 months 2013			Restated 6 months 2012			Restated Full year 2012		
	Operating profit £m	Non- operating items £m	Total £m	Operating profit £m	Non- operating items £m	Total £m	Operating profit £m	Non- operating items £m	Total £m
Continuing operations									
Profit/(loss) before tax attributable to shareholders' profits	1,008	(385)	623	1,071	(890)	181	2,038	(1,970)	68
Share of Delta Lloyd's tax expense as an associate	—	—	—	(28)	135	107	(28)	135	107
Profit/(loss) before tax	1,008	(385)	623	1,043	(755)	288	2,010	(1,835)	175
Tax attributable to shareholders' (loss)/profit	(296)	79	(217)	(287)	102	(185)	(499)	238	(261)
Profit/(loss) for the period	712	(306)	406	756	(653)	103	1,511	(1,597)	(86)
Amount attributable to non-controlling interests	(93)	10	(83)	(90)	26	(64)	(184)	16	(168)
Cumulative preference dividends for the period	(9)	—	(9)	(9)	—	(9)	(17)	—	(17)
Coupon payments in respect of direct capital instruments (DCI) and fixed rate tier 1 notes (net of tax)	(13)	—	(13)	—	—	—	(55)	—	(55)
Profit/(loss) attributable to ordinary shareholders from continuing operations	597	(296)	301	657	(627)	30	1,255	(1,581)	(326)
Profit/(loss) attributable to ordinary shareholders from discontinued operations	102	268	370	78	(805)	(727)	161	(3,009)	(2,848)
Profit/(loss) attributable to ordinary shareholders	699	(28)	671	735	(1,432)	(697)	1,416	(4,590)	(3,174)

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

	6 months 2013			Restated 6 months 2012			Restated Full year 2012		
	Before tax £m	Net of tax, non-controlling interests, preference dividends and DCI ¹ £m	Per share p	Before tax £m	Net of tax, non-controlling interests, preference dividends and DCI ¹ £m	Per share p	Before tax £m	Net of tax, non-controlling interests, preference dividends and DCI ¹ £m	Per share p
Operating profit attributable to ordinary shareholders	1,008	597	20.3	1,071	657	22.6	2,038	1,255	43.1
Non-operating items:									
Investment return variances and economic assumption changes on long term business	(2)	(115)	(3.9)	(305)	(211)	(7.3)	(620)	(499)	(17.1)
Short-term fluctuation in return on investments on non-long-term business	(306)	(227)	(7.7)	31	16	0.5	7	9	0.3
Economic assumption changes on general insurance and health business	27	21	0.7	(18)	(13)	(0.4)	(21)	(16)	(0.6)
Impairment of goodwill, associates and joint ventures	(77)	(77)	(2.6)	184	184	6.3	(60)	(60)	(2.1)
Amortisation and impairment of intangibles	(43)	(31)	(1.1)	(47)	(39)	(1.3)	(128)	(84)	(2.9)
Profit/(loss) on disposal and remeasurement of subsidiaries and associates	180	270	9.2	(30)	(29)	(1.0)	(164)	(164)	(5.6)
Integration and restructuring costs and exceptional items	(164)	(137)	(4.7)	(182)	(147)	(5.1)	(461)	(379)	(13.0)
Share of Delta Lloyd's non-operating items (before tax) as an associate	—	—	—	(523)	(388)	(13.3)	(523)	(388)	(13.3)
Share of Delta Lloyd's tax expense, as an associate	—	—	—	107	—	—	107	—	—
Profit/(loss) attributable to ordinary shareholders from continuing operations	623	301	10.2	288	30	1.0	175	(326)	(11.2)
Profit/(loss) attributable to ordinary shareholders from discontinued operations	487	370	12.6	(691)	(727)	(25.0)	(2,696)	(2,848)	(97.9)
Profit/(loss) attributable to ordinary shareholders	1,110	671	22.8	(403)	(697)	(24.0)	(2,521)	(3,174)	(109.1)

¹ DCI includes direct capital instruments and fixed rate tier 1 notes

(iii) The calculation of basic earnings per share uses a weighted average of 2,942 million (*HY12: 2,902 million; FY12: 2,910 million*) ordinary shares in issue, after deducting shares owned by the employee share trusts. The actual number of shares in issue at 30 June 2013 was 2,947 million (*HY12: 2,918 million; FY12: 2,946 million*) and 2,944 million (*HY12: 2,878 million; FY12: 2,936 million*) excluding shares owned by the employee share trusts.

B7 – Earnings per share continued**(b) Diluted earnings per share**

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

	6 months 2013			Restated 6 months 2012			Restated Full year 2012		
	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p
Profit/(loss) attributable to ordinary shareholders	301	2,942	10.2	30	2,902	1.0	(326)	2,910	(11.2)
Dilutive effect of share awards and options	—	42	(0.1)	—	41	—	—	44	—
Diluted earnings per share from continuing operations¹	301	2,984	10.1	30	2,943	1.0	(326)	2,954	(11.2)
Profit/(loss) attributable to ordinary shareholders	370	2,942	12.6	(727)	2,902	(25.0)	(2,848)	2,910	(97.9)
Dilutive effect of share awards and options	—	42	(0.2)	—	41	—	—	44	—
Diluted earnings per share from discontinued operations¹	370	2,984	12.4	(727)	2,943	(25.0)	(2,848)	2,954	(97.9)
Diluted earnings per share	671	2,984	22.5	(697)	2,943	(24.0)	(3,174)	2,954	(109.1)

¹ Losses have an anti-dilutive effect. Therefore the basic and diluted earnings for periods where the result was a loss have remained the same.

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

	6 months 2013			Restated 6 months 2012			Restated Full year 2012		
	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p
Operating profit attributable to ordinary shareholders	597	2,942	20.3	657	2,902	22.6	1,255	2,910	43.1
Dilutive effect of share awards and options	—	42	(0.3)	—	41	(0.3)	—	44	(0.6)
Diluted operating profit per share from continuing operations	597	2,984	20.0	657	2,943	22.3	1,255	2,954	42.5
Operating profit attributable to ordinary shareholders	102	2,942	3.5	78	2,902	2.7	161	2,910	5.5
Dilutive effect of share awards and options	—	42	(0.1)	—	41	—	—	44	(0.1)
Diluted operating profit per share from discontinued operations	102	2,984	3.4	78	2,943	2.7	161	2,954	5.4
Diluted operating profit per share	699	2,984	23.4	735	2,943	25.0	1,416	2,954	47.9

B8 – Dividends and appropriations

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Ordinary dividends declared and charged to equity in the period			
Final 2012 – 9.00 pence per share, paid on 17 May 2013	264	—	—
Interim 2012 – 10.00 pence per share, paid on 16 November 2012	—	—	292
Final 2011 – 16.00 pence per share, paid on 17 May 2012	—	465	465
	264	465	757
Preference dividends declared and charged to equity in the period	9	9	17
Coupon payments on direct capital instruments and fixed rate tier 1 notes	17	—	73
	290	474	847

Subsequent to 30 June 2013, the directors declared an interim dividend for 2013 of 5.6 pence per ordinary share (*HY12: 10 pence*), amounting to £165 million (*HY12: £292 million*) in total. The dividend will be paid on 15 November and will be accounted for as an appropriation of retained earnings in the year ending 31 December 2013.

Interest on the direct capital instruments issued in November 2004 and the fixed rate tier 1 notes issued in May 2012 is treated as an appropriation of retained profits and, accordingly, is accounted for when paid. Tax relief is obtained at a rate of 23.25% (2012: 24.5%).

B9 – Insurance liabilities**(a) Carrying amount**

Insurance liabilities at 30 June/31 December comprise:

	30 June 2013			30 June 2012			31 December 2012		
	Long-term business £m	General insurance and health £m	Total £m	Restated ¹ Long-term business £m	General insurance and health £m	Total £m	Long-term business £m	General insurance and health £m	Total £m
Long-term business provisions									
Participating	49,037	—	49,037	50,390	—	50,390	49,473	—	49,473
Unit-linked non-participating	8,225	—	8,225	10,065	—	10,065	9,936	—	9,936
Other non-participating	72,368	—	72,368	70,182	—	70,182	71,781	—	71,781
	129,630	—	129,630	130,637	—	130,637	131,190	—	131,190
Outstanding claims provisions	1,455	7,866	9,321	1,304	7,805	9,109	1,342	7,711	9,053
Provision for claims incurred but not reported	—	2,820	2,820	—	2,687	2,687	—	2,843	2,843
	1,455	10,686	12,141	1,304	10,492	11,796	1,342	10,554	11,896
Provision for unearned premiums	—	4,610	4,610	—	4,676	4,676	—	4,441	4,441
Provision arising from liability adequacy tests	—	11	11	—	12	12	—	11	11
Total	131,085	15,307	146,392	131,941	15,180	147,121	132,532	15,006	147,538
Less:									
Amounts classified as held for sale	(33,331)	(1)	(33,332)	(1,633)	—	(1,633)	(34,446)	(1)	(34,447)
	97,754	15,306	113,060	130,308	15,180	145,488	98,086	15,005	113,091

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, there has been a reclassification at 30 June 2012 from participating insurance liabilities to participating investment contract liabilities of £2,515 million. There is no impact on profit or equity reported for the period ended 30 June 2012.

(b) Movements in long-term business liabilities

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

	6 months 2013 £m	Restated ¹ 6 months 2012 £m	Full year 2012 £m
Carrying amount at 1 January	131,190	131,171	131,171
Provisions in respect of new business	2,973	4,317	8,631
Expected change in existing business provisions	(3,672)	(3,956)	(8,362)
Variance between actual and expected experience	764	138	943
Impact of operating assumption changes	36	(40)	(718)
Impact of economic assumption changes	(1,740)	(377)	1,726
Other movements	(57)	103	(109)
Change in liability recognised as an expense	(1,696)	185	2,111
Effect of portfolio transfers, acquisitions and disposals	(3,244)	272	(214)
Foreign exchange rate movements	3,572	(991)	(1,878)
Other movements ²	(192)	—	—
Carrying amount at 30 June/31 December	129,630	130,637	131,190

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, there has been a reclassification at 30 June 2012 from participating insurance liabilities to participating investment contract liabilities of £2,515 million. There is no impact on profit or equity reported for the period ended 30 June 2012.

² Other movements, outside profit and loss, of £(192) million, includes £(193) million in respect of the reclassification of contracts issued by the Group's Italian long-term business from insurance liabilities to participating investment contract liabilities in the current period.

B9 – Insurance liabilities continued**(c) Movements in general insurance and health liabilities**

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

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Carrying amount at 1 January	10,554	10,745	10,745
Impact of changes in assumptions	(48)	50	61
Claim losses and expenses incurred in the current period	3,123	3,021	6,291
Decrease in estimated claim losses and expenses incurred in prior periods	(136)	(125)	(199)
Incurred claims losses and expenses	2,939	2,946	6,153
Less:			
Payments made on claims incurred in the current period	(1,362)	(1,264)	(3,243)
Payments made on claims incurred in prior periods	(1,764)	(1,838)	(3,104)
Recoveries on claim payments	108	142	297
Claims payments made in the period, net of recoveries	(3,018)	(2,960)	(6,050)
Unwinding of discounting	9	17	35
Changes in claims reserve recognised as an expense	(70)	1	140
Effect of portfolio transfers, acquisitions and disposals	(9)	(149)	(171)
Foreign exchange rate movements	212	(112)	(158)
Other movements	(1)	7	(2)
Carrying amount at 30 June/31 December	10,686	10,492	10,554

B10 – Liability for investment contracts**(a) Carrying amount**

The liability for investment contracts at 30 June/31 December comprised:

	30 June 2013 £m	Restated ¹ 30 June 2012 £m	31 December 2012 £m
Long-term business			
Participating contracts	70,249	65,941	66,849
Non-participating contracts at fair value	46,501	44,130	46,299
Non-participating contracts at amortised cost	1,393	1,628	1,400
	47,894	45,758	47,699
	118,143	111,699	114,548
Less: Amounts classified as held for sale	(4,858)	(1,798)	(4,054)
Total	113,285	109,901	110,494

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, there has been a reclassification at 30 June 2012 from participating insurance liabilities to participating investment contract liabilities of £2,515 million. There is no impact on profit or equity reported for the period ended 30 June 2012.

(b) Movements in participating investment contracts

The following movements have occurred during the period:

	6 months 2013 £m	Restated ¹ 6 months 2012 £m	Full year 2012 £m
Carrying amount at 1 January	66,849	67,707	67,707
Provisions in respect of new business	1,686	1,656	2,695
Expected change in existing business provisions	(1,100)	(1,421)	(2,039)
Variance between actual and expected experience	(401)	(136)	102
Impact of operating assumption changes	(2)	(4)	9
Impact of economic assumption changes	(61)	(46)	74
Other movements	7	(75)	(82)
Change in liability recognised as an expense	129	(26)	759
Effect of portfolio transfers, acquisitions and disposals	(39)	—	—
Foreign exchange rate movements	3,117	(1,740)	(1,610)
Other movements ²	193	—	(7)
Carrying amount at 30 June/31 December	70,249	65,941	66,849

¹ Following a review of the classification of contracts issued by the Group's Italian long-term business, there has been a reclassification at 30 June 2012 from participating insurance liabilities to participating investment contract liabilities of £2,515 million. There is no impact on profit or equity reported for the period ended 30 June 2012. In the figures previously published for the first six months of 2012, £112 million of provisions in respect of new business were offset against the expected change in existing business provisions. The 6 months 2012 figures above have been restated to correct for this.

² Other movements outside profit and loss, of £193 million are in respect of the reclassification of contracts issued by the Group's Italian long-term business from insurance liabilities to participating investment contract liabilities in the current period.

(c) Movements in non-participating investment contracts

The following movements have occurred during the period:

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Carrying amount at 1 January	47,699	45,659	45,659
Provisions in respect of new business	1,805	1,905	3,851
Expected change in existing business provisions	(1,687)	(1,455)	(2,531)
Variance between actual and expected experience	1,374	(17)	982
Impact of operating assumption changes	5	1	14
Impact of economic assumption changes	(46)	(1)	4
Other movements	(31)	17	104
Change in liability	1,420	450	2,424
Effect of portfolio transfers, acquisitions and disposals	(1,909)	—	25
Foreign exchange rate movements	684	(340)	(404)
Other movements	—	(11)	(5)
Carrying amount at 30 June/31 December	47,894	45,758	47,699

B11 – Reinsurance assets

The reinsurance assets at 30 June/31 December comprised:

	30 June 2013 £m	30 June 2012 £m	31 December 2012 £m
Long-term business provisions			
Insurance contracts	4,402	4,152	4,291
Participating investment contracts	3	3	3
Non-participating investment contracts ¹	1,657	1,707	1,678
	6,062	5,862	5,972
Outstanding claims provisions	76	134	93
Total long-term business provision	6,138	5,996	6,065
General insurance and health			
Outstanding claims provisions	868	818	900
Provisions for claims incurred but not reported	344	405	354
	1,212	1,223	1,254
Provisions for unearned premiums	269	264	248
Total general insurance and health	1,481	1,487	1,502
Total	7,619	7,483	7,567
Less: Amounts classified as held for sale	(712)	(244)	(883)
Total	6,907	7,239	6,684

¹ Balances in respect of all reinsurance treaties are included under reinsurance assets, regardless of whether they transfer significant insurance risk.

B12 – Effect of changes in assumptions and estimates during the period

This disclosure only allows for the impact on liabilities and related assets, such as unallocated divisible surplus, reinsurance, deferred acquisition costs and AVIF, and does not allow for offsetting movements in the value of backing financial assets.

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Assumptions			
Long-term insurance business			
Interest rates	1,190	271	(515)
Expenses	(16)	(3)	11
Persistency rates	—	19	—
Mortality for annuity contracts	—	90	241
Tax and other assumptions	(214)	(3)	(207)
Investment contracts			
Interest rates	—	(2)	(2)
Expenses	—	—	(1)
General insurance and health business			
Change in loss ratio assumptions	1	(3)	—
Change in discount rate assumptions	27	(18)	(21)
Change in expense ratio and other assumptions	—	(4)	(21)
Total	988	347	(515)

The impact of interest rates for long-term business relates primarily to the UK, driven by an increase in the valuation interest rates for annuity business. This had the effect of reducing liabilities and hence a positive impact on profit. The overall impact on profit also depends on movements in the value of assets backing the liabilities, which is not included in this disclosure. The impact of tax and other assumptions includes £0.3 billion relating to strengthening of credit default assumptions for commercial mortgages backing UK annuity business.

B13 – Unallocated divisible surplus

An unallocated divisible surplus (UDS) is established where the nature of policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain at the reporting date. This note shows the movements in the UDS during the period.

	6 months 2013 £m	6 months 2012 £m	Full year 2012 £m
Carrying amount at 1 January	6,986	650	650
Change in participating contract assets	(810)	2,269	6,140
Change in participating contract liabilities	222	203	253
Other movements	3	34	(77)
Change in liability recognised as an expense	(585)	2,506	6,316
Effect of portfolio transfers, acquisition and disposals	(115)	—	1
Foreign exchange rate movements	265	10	24
Other movements	—	(4)	(5)
Carrying amount at 30 June/31 December	6,551	3,162	6,986
Less: Amounts classified as held for sale	18	—	(55)
Total	6,569	3,162	6,931

In Italy, the balance was £46 million negative at 30 June 2013 (FY12: £2 million negative, HY12: £834 million negative). In Spain, certain participating funds had negative UDS balances at 30 June 2013, although in aggregate the UDS balance was £62 million positive (FY12: £95 million positive, HY12: £12 million positive).

Negative UDS balances result from an accounting mismatch between participating assets carried at market value and participating liabilities measured using local practice. The negative balances were tested for recoverability using embedded value methodology and in line with local accounting practice. Testing is conducted at a participating fund-level within each life entity. The negative balances are considered to be recoverable from margins in the existing participating business liabilities.

In Italy, there was a reversal of £33 million of previous losses for negative UDS considered irrecoverable (FY12: £9 million loss, HY12: £31 million profit), and in Spain a reversal of £52 million of previous losses (FY12: £33 million profit, HY12: £35 million loss).

In Italy the method for estimation of the recoverable negative UDS balance uses a real-world embedded value method, with a risk-discount rate of 6.65% (FY12: 6.25%, HY12: 7.10%). The embedded value method includes implicit allowance for the time value of options and guarantees. If the risk-discount rate were increased by 1% it is estimated that the recoverable negative UDS balance would reduce by £10 million (FY12: unchanged, HY12 £30 million reduction).

In Spain, the estimation of the recoverable negative UDS balance uses a market-consistent embedded value method.

B14 – Borrowings

On 21 January 2013, Aviva Group Holdings Limited borrowed £200 million as a short term external borrowing which will be repaid from disposal proceeds.

On 5 July 2013 Aviva plc issued €650 million of subordinated debt bearing interest at 6.125% per annum. The subordinated debt matures on 5 July 2043 but the Company may, at its sole option, redeem all (but not part) of the debt on 5 July 2023 and on each interest payment date thereafter. The subordinated debt qualifies as tier 2 capital under current regulatory rules.

B15 – Pension obligations and other provisions**(a) Provisions in condensed consolidated statement of financial position**

In the condensed consolidated statement of financial position, the amount described as provisions includes pension scheme deficits and comprises:

	30 June 2013 £m	30 June 2012 £m	31 December 2012 £m
Deficits in the main staff pension schemes	582	497	651
Deficits in other staff pension schemes	94	84	88
Total obligations to staff pension schemes	676	581	739
Restructuring provisions	184	147	144
Other provisions	396	376	423
Total	1,256	1,104	1,306
Less: Amounts classified as held for sale	(177)	(7)	(187)
	1,079	1,097	1,119

(b) Movements in the main schemes' surpluses and deficits

Movements in the main pension schemes' surpluses and deficits comprise:

	6 months 2013	Restated ¹ 6 months 2012	Restated ¹ Full year 2012
	Pension scheme surpluses/ (deficits) £m	Pension scheme surpluses/ (deficits) £m	Pension scheme surpluses/ (deficits) £m
Net defined benefit asset in the schemes at 1 January	606	1,264	1,264
Employer contributions	83	80	250
Current and past service costs and administrative expenses	(16)	(11)	(19)
Gains on curtailments	4	1	15
Net interest	16	32	68
Remeasurements	(294)	49	(980)
Exchange rate movement on foreign plans	(23)	8	8
Net defined benefit asset in the schemes at 30 June/31 December	376	1,423	606
Comprising:			
Surpluses	958	1,920	1,257
Deficits	(582)	(497)	(651)
	376	1,423	606

¹ Following the adoption of revised IAS19 "Employee benefits", the Group has retrospectively applied the changes to the comparative periods. This has led to an increase in profit before tax of £150 million for FY12 and £74 million for HY12 shown above within net interest, with a corresponding decrease in other comprehensive income, recorded within remeasurements above.

The decrease in the net defined benefit asset is primarily due to a significant increase in the inflation assumption in the UK schemes, which was partly offset by an increase in long term AA corporate bond yields across all schemes. The IAS 19 net surplus is sensitive to changing credit spreads since the liabilities are valued with reference to the yield on high quality corporate bonds.

B16 – Related party transactions

During the period, there have been no changes in the nature of the related party transactions from those described in the Group's annual report and accounts for the year ended 31 December 2012. There were no transactions with related parties that had a material effect on the result for the period ended 30 June 2013, 30 June 2012 or 31 December 2012.

B17 – Fair value**Fair value methodology**

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

Basis for determining fair value hierarchy

For assets and liabilities measured at fair value, we have categorised the measurement basis into a 'fair value hierarchy' as follows:

Level 1

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

Level 2

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

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

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

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

Level 3

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

The majority of the Group's assets and liabilities measured at fair value are based on quoted market information or observable market data. 5.0% of assets and 1.0% of liabilities measured at fair value are based on estimates and recorded as Level 3. Where estimates are used, these are based on a combination of independent third-party evidence and internally developed models, calibrated to market observable data where possible. Third-party valuations using significant unobservable inputs validated against Level 2 internally modelled valuations are classified as Level 3, where there is a significant difference between the third-party price and the internally modelled value. Where the difference is insignificant, the instrument would be classified as Level 2.

Changes to valuation technique

There were no changes in the valuation techniques during the period compared to those described in the 2012 annual consolidated financial statements.

Comparison of the carrying amounts and fair values of financial instruments as at 30 June 2013:

	Fair value £m	Carrying amount £m
Financial Assets		
Loans	25,008	24,225
Financial Investments		
Fixed maturity securities	128,389	128,389
Equity securities	34,564	34,564
Other investments (including derivatives)	29,717	29,717
Financial liabilities		
Non-participating investment contracts	45,722	45,722
Net asset value attributable to unitholders	12,340	12,340
Borrowings	8,288	8,254
Derivative liabilities	1,564	1,564

B17 – Fair value continued

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

- Receivables
- Cash and cash equivalents
- Payables and other financial liabilities
- The equivalent assets to those above, which are classified as held for sale

Fair value hierarchy analysis

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

	Level 1 £m	Level 2 £m	Level 3 £m	Fair Value £m
Assets				
Investment Property	—	9,832	—	9,832
Loans ¹	—	18,431	—	18,431
Financial investments measured at fair value				
Fixed maturity securities	108,451	10,679	9,259	128,389
Equity securities	34,062	19	483	34,564
Other investments (including derivatives)	22,625	4,784	2,308	29,717
Financial assets of operations classified as held for sale ²	2,231	31,884	833	34,948
Total	167,369	75,629	12,883	255,881
Liabilities				
Financial liabilities measured at fair value				
Non-participating investment contracts	45,225	298	199	45,722
Borrowings ¹	—	1,284	—	1,284
Derivative liabilities	138	1,418	8	1,564
Financial liabilities of operations classified as held for sale ²	—	612	299	911
Total	45,363	3,612	506	49,481

¹ The statement of financial position includes £5,794 million of loans and £6,970 million of borrowings carried at amortised cost.

² Financial assets and liabilities of operations classified as held for sale relate to those measured at fair value. An analysis of total assets and liabilities of operations classified as held for sale is provided in note B4(c).

Transfers between levels of the fair value hierarchy

For recurring fair value measurements, the Group determines whether transfers have occurred between the levels of the fair value hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of the reporting period. During the six month period ended 30 June 2013, there were no transfers of assets or liabilities from Fair Value hierarchy Level 1 to Level 2 or from Level 2 to Level 1. Transfers out of Level 3 (shown below) relate to improvements in the market liquidity of certain debt securities held by our business in France, which were transferred to Level 1, as quoted market prices became available from an active market.

Further information on Level 3 assets and liabilities:

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

	Debt securities £m	Equity securities £m	Other investments (including derivatives) £m	Financial assets of operations classified as held for sale £m	Non participating investment contracts £m	Derivative liabilities £m	Financial liabilities of operations classified as held for sale £m
Opening balance at 1 January 2013	9,961	470	2,316	687	(184)	(46)	(272)
Total net (losses)/gains recognised in the income statement	(188)	(9)	100	5	—	(8)	1
Total net gains/(losses) recognised in the other comprehensive income	1	—	—	15	—	—	—
Purchases	536	4	240	184	—	—	—
Issuances	—	—	5	—	(15)	—	(8)
Disposals	(589)	(7)	(332)	(97)	—	46	—
Transfers into Level 3	51	—	3	—	—	—	—
Transfers out of Level 3	(1,050)	—	(63)	—	—	—	—
Foreign exchange movements	537	25	39	39	—	—	(20)
Balance at 30 June 2013	9,259	483	2,308	833	(199)	(8)	(299)

Total net losses recognised in the income statement in the six month period ended 30 June 2013 in respect of Level 3 assets and liabilities measured at fair value amounted to £99 million. Included in this balance are £52 million of net losses attributable to those assets and liabilities still held at the end of the period.

B17 – Fair value continued

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

- Structured bond-type products held by our business in France amounting to £7.7 billion, for which there is no active market. These bonds are valued either using third-party counterparty or broker quotes. These bonds are validated against internal or third-party models. These bonds have been classified as Level 3 because either (i) the third-party models included a significant unobservable liquidity adjustment or (ii) differences between the valuation provided by the counterparty and broker quotes and the validation model were sufficiently significant to result in a Level 3 classification. At 30 June 2013, the values reported in respect of these products were the lower of counterparty and broker quotes and modelled valuations.
- Notes issued by loan partnerships held by our UK Life business amounting to £0.7 billion, for which there is no active market. These are valued using counterparty quotes, corroborated against the prices of selected similar securities. In the first six-month period ended 30 June 2013, there were insufficient market observable transactions in the selected securities to provide a reliable proxy price to corroborate the counterparty price.
- Private equity investment funds amounting to £1.2 billion, of which £1.1 billion is held by our UK business. In valuing our interest in these funds, we rely on investment valuation reports received from the fund manager, making adjustments for items such as subsequent draw-downs and distributions between the date of the report and the balance sheet date and the fund manager's carried interest.
- External hedge funds held principally by businesses in the UK, France, and the US (which is classified as held for sale) amounting to £1.3 billion. Valuations received from fund managers are based on net asset values. However, insufficient information is provided on the underlying fund assets to support a classification other than Level 3.
- Certain strategic interests in banking partners held by our Italian business amounting to £0.3 billion. Valuations are based on third-party independent appraisals, or where internally modelled, transactions in similar entities, discounted cash flow techniques and valuation multiples, using public and internal management information.
- Financial assets of operations classified as held for sale represent investments held by our business in the US in external hedge funds amounting to £0.4 billion (as mentioned and included above) and debt securities amounting to £0.3 billion. The debt securities are valued based on a consensus view of the prices being held by banks, trading desks and market makers but do not necessarily represent executable quotes or observable price.
- Other Level 3 investments amount to £1.4 billion and relate to a diverse range of different types of securities held by a number of businesses throughout the Group.

Where possible, the Group tests the sensitivity of the fair values of Level 3 investments to changes in unobservable inputs to reasonable alternatives. 99% of valuations for Level 3 investments are sourced from independent third parties and, where appropriate, validated against internally-modelled valuations, third-party models or broker quotes. Where third-party pricing sources are unwilling to provide a sensitivity analysis for their valuations, the Group undertakes, where feasible, sensitivity analysis on the following basis:

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

On the basis of the methodology outlined above, the Group is able to perform sensitivity analysis for £12.6 billion of the Group's Level 3 investments. For these Level 3 investments, changing unobservable valuation inputs to a reasonable alternative would result in a change in fair value by \pm £0.5 billion. Of the £0.3 billion Level 3 investments for which sensitivity analysis is not provided, investments are held predominantly to back non-linked shareholder business and it is estimated that a 10% change in valuation of these investments would reduce shareholder profit before tax by £30 million.

Non-participating investment contract liabilities carried within our UK life business amounting to £0.2 billion relate to non-unit reserves. These are valued based on unobservable inputs, such as future lapses and expense experience, and therefore, have a Level 3 classification. Financial liabilities of operations classified as held for sale amounting to £0.3 billion represent the non-participating investment contracts in our US business which are valued using valuation techniques with unobservable inputs.

B18 – Risk management

As a global insurance group, risk management is at the heart of what we do and is the source of value creation as well as a vital form of control. It is an integral part of managing and maintaining financial strength and stability for our customers, shareholders and other stakeholders.

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

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

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

Risk environment

The first six months of 2013 have seen an overall strengthening of the financial markets with monetary policies in the US, Europe and Japan helping to bolster this position. Global equities have rallied at the fastest rate seen in a number of years and corporate credit spreads have fallen to levels not seen since before the 2008 financial crisis. Sovereign bonds have also benefited from increased liquidity in the system, principally Europe and Japan, with yields registering the lowest historical rates seen to date. Currencies remain volatile as investors are quick to respond to political and monetary updates.

As discussions on the Omnibus II Directive (the amendments to the Solvency II Directive) and technical standards continue, there is still significant uncertainty over the detailed requirements of the new European prudential regime. Aviva continues to actively participate in the development of Solvency II through key European industry working groups.

On 18 July 2013 Aviva plc was identified by the Financial Stability Board as being a Global Systemically Important Insurer ("G-SII"). In common with other G-SIIs and Global Systemically Important Financial Institutions, this designation implies an enhanced level of group supervision and the requirement for Aviva to develop a Systemic Risk Mitigation Plan and Recovery and Resolution Plans.

Risk profile

We continue to manage our risk profile to reflect Aviva's objective of maintaining financial strength and reducing capital volatility. We disposed of the remainder of our holding in Delta Lloyd in January 2013 and our exposure to Italian government bonds continues to be reduced, reflected in the sell down of approximately £1 billion (gross of NCI, redemptions, and purchases) during the first half of 2013. As described below, a number of foreign exchange rate, credit and equity hedges are in place and restrictions on non-domestic investment in sovereign and corporate debt from Greece, Ireland, Italy, Portugal and Spain remain in place.

Going forward, the Group's focus will continue to be on building the balance sheet and cash-flow position, and decreasing the balance sheet volatility and required economic capital.

Our risk management processes enable us to monitor all our capital measures and to identify and manage mismatches between our assets and liabilities. These processes include the use of derivative hedges which are described in more detail below.

Material risks and uncertainties

In accordance with the requirements of the FCA Handbook (DTR 4.2.7) we provide an update here on the material risks and uncertainties facing the Group. The types of risks to which the Group is exposed have not changed significantly over the half-year to 30 June 2013 and remain credit, market, life insurance, general insurance, liquidity, asset management, operational and reputational risks. These risks are described below. Further detail on these risks is given within note 56 of the Aviva plc annual report and accounts 2012.

(a) Credit risk

Aviva has a strong record of managing credit risk and we see credit as an area where we can make a good return for the benefit of both our policyholders and shareholders. We have broad ranging investment restrictions in place on sovereign and corporate debt exposure to Greece, Ireland, Italy, Portugal and Spain and have actively reduced our exposure to the most vulnerable countries. We have in place a comprehensive group-wide reporting system that consolidates credit exposures across geographies, business lines and exposure types. We have a robust framework of limits and controls to diversify the portfolio and enable the early identification of potential issues. Refer to section D3.3.5 of this report for details of our exposures to Greece, Ireland, Portugal, Spain and Italy.

During the first half of 2013 the credit rating profile of our debt securities portfolio has remained strong, although the average rating has fallen slightly in line with the general market's rating agency downgrades. At 30 June 2013, the proportion of our shareholder debt securities that are investment grade has remained stable at 88.6% (31 December 2012: 88.1%).

The Group has in place a series of macro credit hedges to reduce the overall credit risk exposure. The notional size of these long-term hedges remained at approximately £4 billion during the first half of 2013.

B18 – Risk management continued**(b) Market risk**

We continue to limit our direct equity exposure. As discussed earlier, a rolling central equity hedging strategy remains in place to help control the Group's overall direct and indirect exposure to equities.

We have a limited appetite for interest rate risk as we do not believe it is adequately rewarded. Our conservative and disciplined approach to asset and liability management and pricing limit our exposure to interest rate and guarantee risk. Asset and liability durations across the Group are generally well matched and actions have been taken to manage guarantee risk in the current low interest rate environment. In particular, a key objective is to match the duration of our annuity liabilities with assets of the same duration. These assets include corporate bonds, residential mortgages and commercial mortgages. Should they default before maturity, it is assumed that the Group can reinvest in assets of a similar risk and return profile, which is subject to market conditions.

Interest rate hedges are used to manage asymmetric interest rate exposures in some of our life insurance businesses as well as an efficient way to manage cash flow and duration matching (the most material examples relate to guaranteed annuity exposures in both UK and Ireland). These hedges are used to protect against interest rate falls and are sufficient in scale to materially reduce the Group's interest rate exposure.

At a Group level we actively seek to manage currency risk primarily by matching assets and liabilities in functional currencies at the business unit level. Foreign currency dividends from subsidiaries are hedged using foreign exchange forwards to provide certainty regarding the sterling value to be received by the Group. As described earlier, hedges have also been used to protect the Group's capital against a significant depreciation in local currency versus sterling. At 30 June 2013 the Group had in place Euro and Canadian Dollar hedges with notional values of £1.1 billion and £0.15 billion respectively. These hedges are used to protect the Group's capital against a significant depreciation in the local currency versus sterling.

(c) Liquidity risk

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

The relatively illiquid nature of insurance liabilities is a potential source of additional investment return by allowing us to invest in higher yielding, but less liquid assets such as commercial mortgages. The Group seeks to ensure that it maintains sufficient liquid financial resources to meet its obligations as they fall due through the application of a Group liquidity risk policy and business standard. At Group and business unit level, there is a liquidity risk appetite which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario. The Company's main sources of liquidity are liquid assets held within the Company and Aviva Group Holdings Limited (AGH), and dividends received from the Group's insurance and asset management businesses. Sources of liquidity in normal markets also includes a variety of short and long-term instruments including commercial papers and medium and long-term debt. In addition to the existing liquid resources and expected inflows, the Group and Company maintain significant undrawn committed borrowing facilities (£1.5 billion) from a range of leading international banks to further mitigate this risk.

(d) Life insurance risk

The profile of our life insurance risks, primarily persistency, mortality and expense risk have remained stable in the first half of 2013. Our economic exposure to longevity risk has increased as the Group continues to write significant volumes of individual annuity new business in the UK adding to an already significant in force portfolio. Persistency risk remains significant and continues to have a volatile outlook, with underlying performance linked to economic conditions. Businesses across the Group mitigate this risk through a range of customer retention activities. The Group has continued to write substantial volumes of life protection business, and to utilise reinsurance to reduce exposure to potential mortality losses. All life insurance risks benefit from significant diversification against other risks in the portfolio, limiting the impact on the Group's aggregate risk profile.

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

(e) General insurance risk

The Group writes a balanced portfolio of general insurance risk (including personal motor; household; commercial motor; property and liability) across a geographically diversified spread of markets including UK; Ireland; Canada; France; Italy; Turkey and Poland. This risk is assumed in line with our underwriting and pricing expertise, to provide an appropriate level of returns for an acceptable level of risk. Underwriting discipline and a robust governance process is at the core of the Group's underwriting strategy.

Provisions made for insurance liabilities are inherently uncertain. Due to this uncertainty, general insurance reserves are regularly reviewed by qualified and experienced actuaries at the business unit and Group level in accordance with the Group's reserving framework. These and other key risks, including the occurrence of unexpected claims from a single source or cause and inadequate reinsurance protection/risk transfer, are subject to an overarching risk management framework and various mechanisms to govern and control our risks and exposures.

During the first half of 2013, Aviva's general insurance risk profile has remained stable. As with life insurance risks, general insurance risks also benefit from the significant diversification that arises from being part of a large and diverse portfolio, limiting the impact on the Group's aggregate risk profile. Losses from the Alberta flooding event in Canada are within the Group's risk appetite and will therefore be largely retained within the Group. On July 7, 2013, Toronto experienced a severe storm causing flooding. As a result our general insurance operations are expected to record a loss from this event, which will be recorded in the third quarter results.

Processes are in place to manage catastrophe risk in individual business units and at a group level. The group cedes much of its worldwide catastrophe risk to third-party reinsurers but retains a pooled element for its own account gaining diversification benefit. Aviva successfully completed the renewal of its group-wide catastrophe reinsurance protection on 1 April 2013.

B18 – Risk management continued

(f) Asset management risk

Asset management risk arises through exposure to negative investment performance, fund liquidity, and factors that influence franchise value such as product development appropriateness and capability, and client retention.

Aviva is directly exposed to the risks associated with operating an asset management business through its ownership of Aviva Investors. The underlying risk profile of our asset management risk is derived from investment performance, specialist investment professionals and leadership, product development capabilities, fund liquidity, margin, client retention, regulatory developments, fiduciary and contractual responsibilities. These key risks are monitored on an on-going basis with issues escalated to the appropriate governance committee.

(g) Operational risk

All of our businesses are subject to operational risks, including the risk of direct or indirect loss resulting from inadequate or failed internal or external processes, systems and human error or misconduct or from external events. Our systems and processes on which we are dependent to serve our customers are designed to appropriately identify and address the operational risks associated with our activities. However, they may nonetheless fail due to IT malfunctions, human error, intentional disruption or hacking of IT systems, business interruptions, non-performance by third parties or other external events. This could disrupt business operations resulting in material reputational damage and the loss of customers, and have a consequent material adverse effect on our results of operations and financial condition. Although we have taken steps to manage these operational risks, we cannot anticipate the details or timing of all possible operational and systems failures which may adversely impact our business.

The Group maintains constructive relationships with its regulators around the world and developments in relation to key regulatory changes such as Solvency II are monitored closely. We continue to work with regulatory bodies to help deliver an appropriate outcome to Solvency II and prepare for the necessary business changes. Similarly, we are monitoring the development of IFRS 4 Phase 2 and will prepare for the necessary business changes.

Execution risk is inherent in the completion of all strategic transactions including the pending disposal of the Company's US business. Such risks include uncertainty in relation to obtaining the required regulatory approvals on satisfactory terms for the change of control envisaged by such transactions. Such execution risk gives rise to a corresponding potential impact on capital and liquidity.

As with all insurance groups, the Group is subject to litigation risks as a result of policies written in its insurance subsidiaries. The Group assesses, and holds provisions in respect of, such litigation risks. For example, provisions are held in technical reserves in respect of contracts which allow for switches at known prices in Aviva France.

(h) Brand and reputation risk

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

B19 – Cash and cash equivalents

Cash and cash equivalents in the statement of cash flows at 30 June/31 December reconciles to the statement of financial position as follows:

	30 June 2013 £m	Restated ¹ 30 June 2012 £m	Restated ¹ 31 December 2012 £m
Cash and cash equivalents	25,075	24,024	23,102
Cash and cash equivalents of operations classified as held for sale	965	409	917
Bank overdrafts	(1,002)	(665)	(566)
Net cash and cash equivalents at 30 June/31 December	25,038	23,768	23,453

¹ Restated following the adoption of IFRS 10 'consolidated financial statements' – see note B2 for details.

Directors' responsibility statement

Directors' responsibility statement

The directors' confirm that these condensed interim financial statements have been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and as issued by the IASB and that the interim management report includes a fair review of the information required by DTR 4.2.7 and DTR 4.2.8, namely:

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

Information on the current directors responsible for providing this statement can be found on pages 80 to 82 of Aviva plc's 2012 Annual Report and Accounts and on the Company's website at:

<http://www.aviva.com/investor-relations/corporate-governance/board-of-directors/>

By order of the Board

Mark Wilson
Group chief executive officer
7 August 2013

Patrick Regan
Chief financial officer

Independent review report to Aviva plc

Independent review report to Aviva plc

Introduction

We have been engaged by the company to review the Condensed consolidated set of financial statements in the half year report for the six months ended 30 June 2013, which comprises the Condensed consolidated income statement, the Condensed consolidated statement of comprehensive income, the Condensed consolidated statement of changes in equity, the Condensed consolidated statement of financial position, the Condensed consolidated statement of cash flows and related notes. We have read the other information contained in the half year report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the Condensed consolidated set of financial statements.

Directors' responsibilities

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

As disclosed in note B1, the annual financial statements of the group are prepared in accordance with IFRSs as adopted by the European Union and as issued by the International Accounting Standards Board. The Condensed consolidated set of financial statements included in this half year report has been prepared in accordance with International Accounting Standard 34, "Interim Financial Reporting", as adopted by the European Union and as issued by the International Accounting Standards Board.

Our responsibility

Our responsibility is to express to the company a conclusion on the Condensed consolidated set of financial statements in the half year report based on our review. This report, including the conclusion, has been prepared for and only for the company for the purpose of the Disclosure and Transparency Rules of the Financial Conduct Authority and for no other purpose. We do not, in producing this report, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the Condensed consolidated set of financial statements in the half year report for the six months ended 30 June 2013 is not prepared, in all material respects, in accordance with International Accounting Standard 34 as adopted by the European Union and as issued by the International Accounting Standards Board, and the Disclosure and Transparency Rules of the United Kingdom's Financial Conduct Authority.

PricewaterhouseCoopers LLP

Chartered Accountants
London
7 August 2013

- (a) The maintenance and integrity of the Aviva plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
- (b) Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

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Capital & assets

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Capital and liquidity

C1 – Capital performance

(a) Capital generation and utilisation

	6 months 2013 £m	Restated 6 months 2012 £m	Restated 12 months 2012 £m
Group operating capital generated after investment in new business	1,019	891	1,982
Interest, corporate and other costs	(271)	(321)	(677)
External dividends and appropriations, net of shares issued in lieu of dividends	(297)	(447)	(723)
Net operating capital generation after financing	451	123	582

(b) Capital required to write life new business, internal rate of return and payback period

The Group generates a significant amount of capital each year which supports both shareholder distribution and reinvestment in new business. The new business written requires up front capital investment, due to set-up costs and capital requirements.

The internal rate of return (IRR) is a measure of the shareholder return expected on this capital investment. It is equivalent to the discount rate at which the present value of the post-tax cash flows expected to be earned over the life time of the business written, including allowance for the time value of options and guarantees, is equal to the total invested capital to support the writing of the business. The capital included in the calculation of the IRR is the initial capital required to pay acquisition costs and set up statutory reserves in excess of premiums received ('initial capital'), plus required capital at the same level as for the calculation of the value of new business.

The payback period shows how quickly shareholders can expect the total capital to be repaid. The payback period has been calculated based on undiscounted cash flows and allows for the initial and required capital.

The projected investment returns in both the IRR and payback period calculations assume that equities, properties and bonds earn a return in excess of risk-free, consistent with the long-term rate of return assumed in operating earnings.

The internal rates of return on new business written during the period are set out below:

	6 months 2013			6 months 2012			Full year 2012		
	Internal rate of return %	New business impact on free surplus	Payback period years	Internal rate of return %	New business impact on free surplus	Payback period years	Internal rate of return %	New business impact on free surplus	Payback period years
Gross of non-controlling interests									
United Kingdom	25%	(33)	5	15%	35	7	18%	6	6
Ireland	4%	16	19	2%	16	20	2%	31	25
United Kingdom & Ireland	21%	(17)	7	13%	51	9	16%	37	8
France	12%	73	8	11%	70	8	11%	125	8
Poland	19%	14	5	22%	15	4	20%	25	4
Italy	12%	27	6	12%	27	6	12%	41	6
Spain	18%	19	4	16%	23	4	21%	35	4
Other Europe	32%	13	3	20%	24	3	22%	42	3
Europe	15%	146	6	14%	159	6	15%	268	6
Asia	14%	35	11	12%	40	11	11%	84	11
Total – excluding United States	16.3%	164	7	13.5%	250	7	14.9%	389	8
Total – United States	—	—	—	14%	199	5	17%	319	4
Total	16.3%	164	7	13.6%	449	7	15.5%	708	7

C1 – Capital performance continued

(c) Analysis of return of equity - IFRS basis

	Operating return ¹		Opening shareholders' funds including non-controlling interests £m	Return on equity %
	Before Tax £m	After tax £m		
6 months 2013				
United Kingdom & Ireland life	446	364	5,646	12.9%
United Kingdom & Ireland general insurance and health	214	168	4,008	8.4%
Europe	472	323	5,860	11.0%
Canada	147	109	1,039	21.0%
Asia	37	33	825	8.0%
Fund management	42	30	225	26.7%
Corporate and Other Business ²	(190)	(193)	(1,471)	n/a
Return on total capital employed (excluding United States)	1,168	834	16,132	10.3%
United States	125	102	367	55.6%
Return on total capital employed (including United States)	1,293	936	16,499	11.3%
Subordinated debt	(148)	(114)	(4,337)	5.3%
External debt	(12)	(8)	(802)	2.0%
Return on total equity	1,133	814	11,360	14.3%
Less: Non-controlling interests		(93)	(1,574)	11.8%
Direct capital instruments and fixed rate tier 1 notes		(13)	(1,382)	1.9%
Preference capital		(9)	(200)	9.0%
Return on equity shareholders' funds		699	8,204	17.0%

¹ The operating return is based upon Group adjusted operating profit, which is stated before impairment of goodwill, amortisation of intangibles, exceptional items and investment variance.

² The 'Corporate and Other Business' loss before tax of £190 million comprises corporate costs of £72 million, interest on internal lending arrangements of £119 million, other business operating loss (net of investment return) of £27 million offset by finance income on the main UK pension scheme of £28 million.

	Operating return ¹		Opening shareholders' funds including non-controlling interests £m	Restated return on equity %
	Restated before tax £m	Restated after tax £m		
Full year 2012				
United Kingdom & Ireland life	892	869	5,478	15.9%
United Kingdom & Ireland general insurance and health	490	370	3,903	9.5%
Europe	967	671	5,420	12.4%
Canada	277	205	1,034	19.8%
Asia	64	56	916	6.1%
Fund management	51	36	185	19.5%
Corporate and Other Business ²	(498)	(541)	(234)	n/a
Return on total capital employed (excluding Delta Lloyd and United States)	2,243	1,666	16,702	10.0%
Delta Lloyd	112	84	776	10.8%
United States	239	161	3,140	5.1%
Return on total capital employed (including Delta Lloyd and United States)	2,594	1,911	20,618	9.3%
Subordinated debt	(294)	(222)	(4,550)	4.9%
External debt	(23)	(17)	(705)	2.4%
Return on total equity	2,277	1,672	15,363	10.9%
Less: Non-controlling interest		(184)	(1,530)	12.0%
Direct capital instruments and fixed rate tier 1 notes		(55)	(990)	5.6%
Preference capital		(17)	(200)	8.5%
Return on equity shareholders' funds		1,416	12,643	11.2%

¹ The operating return is based upon Group adjusted operating profit, which is stated before impairment of goodwill, amortisation of intangibles, exceptional items and investment variance.

² The 'Corporate and Other Business' loss before tax of £498 million comprises corporate costs of £136 million, interest on internal lending arrangements of £307 million, other business operating loss (net of investment return) of £142 million offset by finance income on the main UK pension scheme of £87 million.

C1 – Capital performance continued

(d) Group capital structure

The table below shows how our capital, on both an IFRS and MCEV basis, is deployed by market and how that capital is funded.

	30 June 2013 Capital employed			31 December 2012 Capital employed		
	IFRS basis £m	Internally generated AVIF £m	MCEV ⁴ basis £m	IFRS basis £m	Internally generated AVIF £m	MCEV ⁴ basis £m
United Kingdom & Ireland life	5,336	2,017	7,353	5,646	1,956	7,602
United Kingdom & Ireland general insurance	4,330	—	4,330	4,008	—	4,008
Europe	5,400	3,131	8,531	5,860	2,873	8,733
Canada	1,068	—	1,068	1,039	—	1,039
Asia	746	79	825	825	28	853
Fund Management	234	—	234	225	—	225
Corporate and Other Business ¹	(812)	12	(800)	(1,471)	13	(1,458)
Delta Lloyd	—	—	—	—	—	—
United States	523	—	523	367	—	367
Total capital employed	16,825	5,239	22,064	16,499	4,870	21,369
Financed by						
Equity shareholders' funds	8,276	4,723	12,999	8,204	4,230	12,434
Non-controlling interests	1,506	516	2,022	1,574	640	2,214
Direct capital instruments and fixed rate tier 1 notes	1,382	—	1,382	1,382	—	1,382
Preference shares	200	—	200	200	—	200
Subordinated debt	4,435	—	4,435	4,337	—	4,337
External debt	1,026	—	1,026	802	—	802
Total capital employed	16,825	5,239	22,064	16,499	4,870	21,369
Less Goodwill & Other Intangibles (net of tax and non-controlling interests) ²	(2,250)		(2,137)	(2,523)		(2,429)
Total tangible capital employed	14,575		19,927	13,976		18,940
Total Debt³	7,293		7,293	6,971		6,971
Tangible debt leverage	50%		37%	50%		37%

1 'Corporate' and 'other Business' includes centrally held tangible net assets, the main UK staff pension scheme surplus and also reflects internal lending arrangements. These internal lending arrangements, which net out on consolidation, arise in relation to the following:

– Post the 2012 year end the Group took action to improve access to its dividends from the Group's insurances and asset management businesses by undertaking a corporate restructuring whereby Aviva Group Holdings (AGH) purchased the majority of the overseas businesses from Aviva Insurance Limited (AIL).

– The internal leverage through the interdivisional balance within AIL has been replaced by a formal loan between AIL and AGH with plans in place to reduce this loan by £600 million over the next three years.

– Certain subsidiaries, subject to satisfying standalone capital and liquidity requirements, loan funds to corporate and holding entities. These loans satisfy arm's-length criteria and all interest payments are made when due.

2 Goodwill and intangibles comprise £1,504 million (FY12: £1,703 million) of goodwill in subsidiaries, £1,095 million (FY12: £1,090 million) of intangibles in subsidiaries and £75 million (FY12: £132 million) of goodwill and intangibles in joint ventures, net of deferred tax liabilities of £(203) million (FY12: £(188) million) and the non controlling interest share of intangibles of £(221) million (FY12: £(214) million). Under MCEV goodwill and intangibles have been further impaired by £113 million (FY12: £94 million) which has been reflected in the additional value of in-force long-term business in the MCEV balance sheet.

3 Total debt comprises direct capital instruments and fixed rate tier 1 notes, Aviva Plc preference share capital and core structural borrowings. In addition preference share capital of GA plc of £250 million within non-controlling interests has been included.

4 In preparing the MCEV information, the directors have done so in accordance with the European Insurance CFO Forum MCEV Principles with the exception of stating held for sale operation at their expected fair value, as represented by expected sale proceeds, less cost to sell.

Total capital employed is financed by a combination of equity shareholders' funds, preference capital, subordinated debt and borrowings. At HY13 we had £16.8 billion (FY12: £16.5 billion) of total capital employed in our trading operations measured on an IFRS basis and £22.1 billion (FY12: £21.4 billion) of total capital employed on an MCEV basis.

Financial leverage, the ratio of external senior and subordinated debt to tangible capital employed, is 50% (FY12: 50%), and financial leverage under MCEV is 37% (FY12: 37%).

At HY13 the market value of our external debt, subordinated debt, preference shares (including both Aviva plc preference shares of £200 million and General Accident plc preference shares, within non-controlling interest, of £250 million), and direct capital instruments and fixed rate tier 1 notes was £7,499 million (FY12: £7,260 million), with a weighted average cost, post tax, of 4.6% (FY12: 4.4%). The Group Weighted Average Cost of Capital (WACC) is 6.6% (FY12: 6.3%) and has been calculated by reference to the cost of equity and the cost of debt at the relevant date. The cost of equity at HY13 was 8.1% (FY12: 7.5%) based on a risk free rate of 2.5% (FY12: 1.9%), an equity risk premium of 4.0% (FY12: 4.0%) and a market beta of 1.4 (FY12: 1.4).

C1 – Capital performance continued

(e) Equity sensitivity analysis

The sensitivity of the group's total equity, excluding Delta Lloyd and US, on an IFRS basis and MCEV basis at 30 June 2013 to a 10% fall in global equity markets, a rise of 1% in global interest rates or a 0.5% increase in credit spreads is as follows:

31 December 2012 £bn		30 June 2013 £bn	Equities down 10% £bn	Interest rates up 1% £bn	0.5% increased credit spread £bn
	IFRS basis				
11.5	Long-term savings	10.6	(0.1)	(0.4)	(0.2)
4.6	General insurance and other	5.7	(0.1)	(0.5)	0.5
(5.1)	Borrowings	(5.5)	—	—	—
11.0	Total equity	10.8	(0.2)	(0.9)	0.3

31 December 2012 £bn		30 June 2013 £bn	Equities down 10%		Interest rates up 1% £bn	0.5% increased credit spread £bn
	MCEV basis		Direct £bn	Indirect £bn		
16.3	Long-term savings	15.9	(0.1)	(0.4)	(0.5)	(1.1)
4.6	General insurance and other	5.7	(0.1)	—	(0.5)	0.5
(5.1)	Borrowings	(5.5)	—	—	—	—
15.8	Total equity	16.1	(0.2)	(0.4)	(1.0)	(0.6)

These sensitivities assume a full tax charge/credit on market value assumptions. The interest rate sensitivity also assumes an equivalent movement in both inflation and discount rate (i.e. no change to real interest rates) and therefore incorporates the offsetting effects of these items on the pension scheme liabilities. A 1% increase in the real interest rate has the effect of reducing the pension scheme liability in the main UK pension scheme by £1.6 billion (before any associated tax impact).

The 0.5% increased credit spread sensitivities for IFRS and MCEV do not make an allowance for any adjustment to risk-free interest rates. MCEV sensitivities assume that the credit spread movement relates to credit risk and not liquidity risk; in practice, credit spread movements may be partially offset due to changes in liquidity risk. Life IFRS sensitivities provide for any impact of credit spread movements on liability valuations. The IFRS and MCEV sensitivities also include the allocation of staff pension scheme sensitivities, which assume inflation rates and government bond yields remain constant. In practice, the sensitivity of the business to changes in credit spreads is subject to a number of complex interactions. The impact of the credit spread movements will be related to individual portfolio composition and may be driven by changes in credit or liquidity risk; hence, the actual impact may differ substantially from applying spread movements implied by various published credit spread indices to these sensitivities.

C2 – Regulatory capital

Individual regulated subsidiaries measure and report solvency based on applicable local regulations, including in the UK the regulations established by the Prudential Regulatory Authority (PRA). These measures are also consolidated under the European Insurance Groups Directive (IGD) to calculate regulatory capital adequacy at an aggregate Group level, where Aviva has a regulatory obligation to have a positive position at all times. This measure represents the excess of the aggregate value of regulatory capital employed in our business over the aggregate minimum solvency requirements imposed by local regulators, excluding the surplus held in the UK and Ireland with-profit life funds. The minimum solvency requirement for our European businesses is based on the Solvency 1 Directive. In broad terms, for EU operations, this is set at 4% and 1% of non-linked and unit-linked life reserves respectively and for our general insurance portfolio of business is the higher of 18% of gross premiums or 26% of gross claims, in both cases adjusted to reflect the level of reinsurance recoveries. For our major non-European businesses (the US and Canada) a risk charge on assets and liabilities approach is used.

Based on individual guidance from the PRA we recognise surpluses of the non-profit funds of our UK Life and pensions businesses which are available for transfer to shareholders. These have decreased to £nil as at 30 June 2013 (FY12: £0.4 billion) due to the transfer of surpluses to the shareholder fund at the beginning of the year.

(a) Regulatory capital – Group: European Insurance Groups Directive (IGD)

	UK life funds £bn	Other business £bn	30 June 2013 £bn	31 December 2012 £bn
Insurance Groups Directive (IGD) capital resources	4.7	9.8	14.5	14.4
Less: capital resource requirement	(4.7)	(5.6)	(10.3)	(10.6)
Insurance Group Directive (IGD) excess solvency	—	4.2	4.2	3.8
Cover over EU minimum (calculated excluding UK life funds)			1.8 times	1.7 times

The EU Insurance Groups Directive (IGD) regulatory capital solvency surplus has increased by £0.4 billion since FY12 to £4.2 billion. On a pro forma basis the estimated IGD solvency surplus at 30 June 2013 is £3.7 billion. The pro forma 30 June 2013 position includes the impact of the announced disposal of the Aviva US Life and Annuities business and related asset management operations classified as held for sale in the Group IFRS balance sheet.

The key movements over the period are set out in the following table:

	£bn
IGD solvency surplus at 31 December 2012	3.8
Operating profits net of other income and expenses	0.6
Dividends and appropriations	(0.3)
Market movements including foreign exchange ¹	(0.2)
Pension scheme funding	(0.1)
Disposals	0.6
Other regulatory adjustments	(0.2)
Estimated IGD solvency surplus at 30 June 2013	4.2

¹ Market movements include the impact of equity, credit spread, interest rate and foreign exchange movements net of the effect of hedging instruments.

(b) Regulatory capital – UK Life with-profits funds

The available capital of the with-profit funds is represented by the realistic inherited estate. The estate represents the assets of the long-term with-profit funds less the realistic liabilities for non-profit policies within the funds, less asset shares aggregated across the with-profit policies and any additional amounts expected at the valuation date to be paid to in-force policyholders in the future in respect of smoothing costs, guarantees and promises. Realistic balance sheet information is shown below for the three main UK with-profit funds: New With-Profit Sub Fund (NWPSF), Old With-Profit Sub Fund (OWPSF) and With-Profit Sub-Fund (WPSF). These realistic liabilities have been included within the long-term business provision and the liability for insurance and investment contracts on the Group's IFRS balance sheet at 30 June 2013 and 31 December 2012.

	Estimated realistic assets £bn	Estimated realistic liabilities ¹ £bn	Estimated realistic inherited estate ² £bn	Capital support arrangement ³ £bn	Estimated risk capital margin £bn	30 June 2013 Estimated excess available capital £bn	31 December 2012 Estimated excess available capital £bn
NWPSF	16.6	(16.6)	—	0.7	(0.3)	0.4	0.3
OWPSF	2.8	(2.5)	0.3	—	(0.1)	0.2	0.2
WPSF ⁴	17.4	(15.4)	2.0	—	(0.3)	1.7	1.3
Aggregate	36.8	(34.5)	2.3	0.7	(0.7)	2.3	1.8

¹ These realistic liabilities include the shareholders' share of future bonuses of £0.3 billion (FY12: £0.3 billion). Realistic liabilities adjusted to eliminate the shareholders' share of future bonuses are £34.2 billion (FY12: £36.0 billion). These realistic liabilities make provision for guarantees, options and promises on a market consistent stochastic basis. The value of the provision included within realistic liabilities is £1.6 billion, £0.3 billion and £3.1 billion for NWPSF, OWPSF and WPSF respectively (FY12: £1.8 billion, £0.3 billion and £3.5 billion for NWPSF, OWPSF and WPSF respectively).

² Estimated realistic inherited estate at FY12 was £nil, £0.3 billion and £1.8 billion for NWPSF, OWPSF and WPSF respectively.

³ The support arrangement represents the reattributed estate (RIESA) of £0.7 billion at 30 June 2013 (FY12: £0.7 billion).

⁴ The WPSF fund includes the Provident Mutual (PM) fund which has realistic assets and realistic liabilities of £1.6 billion and therefore does not contribute to the realistic inherited estate.

C2 – Regulatory capital continued

(c) Investment mix

The aggregate investment mix of the assets in the three main with-profit funds was:

	30 June 2013 %	31 December 2012 %
Equity	23%	23%
Property	13%	16%
Fixed interest	48%	51%
Other	16%	10%

The equity backing ratios, including property, supporting with-profit asset shares are 72% in NWPSF and OWPSF, and 66% in WPSF.

C3 – IFRS Sensitivity analysis

The Group uses a number of sensitivity test-based risk management tools to understand the volatility of earnings, the volatility of its capital requirements, and to manage its capital more efficiently. Primarily, MCEV, ICA, and scenario analysis are used. Sensitivities to economic and operating experience are regularly produced on all of the Group's financial performance measurements to inform the Group's decision making and planning processes, and as part of the framework for identifying and quantifying the risks that each of its business units, and the Group as a whole are exposed to.

For long-term business in particular, sensitivities of MCEV performance indicators to changes in both economic and non-economic experience are continually used to manage the business and to inform the decision making process. More information on MCEV sensitivities can be found in the presentation of results on an MCEV basis in section F (note F19) of this report.

(a) Life insurance and investment contracts

The nature of long-term business is such that a number of assumptions are made in compiling these financial statements.

Assumptions are made about investment returns, expenses, mortality rates, and persistency in connection with the in-force policies for each business unit. Assumptions are best estimates based on historic and expected experience of the business. A number of the key assumptions for the Group's central scenario are disclosed elsewhere in these statements for both IFRS reporting and reporting under the MCEV methodology.

(b) General insurance and health business

General insurance and health claim liabilities are estimated by using standard actuarial claims projection techniques.

These methods extrapolate the claims development for each accident year based on the observed development of earlier years. In most cases, no explicit assumptions are made as projections are based on assumptions implicit in the historic claims.

(c) Sensitivity test results

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

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

C3 – IFRS Sensitivity analysis continued

(d) Long-term businesses

30 June 2013 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance Participating	(125)	20	(80)	20	(70)	(25)	(5)	(50)
Insurance non-participating	(135)	80	(410)	—	—	(85)	(65)	(500)
Investment participating	(80)	30	(10)	10	(20)	(10)	—	—
Investment non-participating	(55)	25	(5)	10	(15)	(15)	—	—
Assets backing life shareholders' funds	—	—	(40)	45	(45)	—	—	—
Total excluding United States	(395)	155	(545)	85	(150)	(135)	(70)	(550)
United States	1,010	(755)	555	—	—	—	—	—
Total	615	(600)	10	85	(150)	(135)	(70)	(550)

30 June 2013 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance Participating	(125)	20	(80)	20	(70)	(25)	(5)	(50)
Insurance non-participating	(135)	80	(410)	—	—	(85)	(65)	(500)
Investment participating	(80)	30	(10)	10	(20)	(10)	—	—
Investment non-participating	(55)	25	(5)	10	(15)	(15)	—	—
Assets backing life shareholders' funds	(25)	25	(45)	50	(50)	—	—	—
Total excluding United States	(420)	180	(550)	90	(155)	(135)	(70)	(550)
United States	—	—	—	—	—	—	—	—
Total	(420)	180	(550)	90	(155)	(135)	(70)	(550)

31 December 2012 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance Participating	(45)	(15)	(110)	60	(95)	(25)	(5)	(50)
Insurance non-participating	(160)	130	(430)	—	—	(75)	(45)	(470)
Investment participating	(55)	45	—	5	(10)	(10)	—	—
Investment non-participating	(40)	35	(5)	10	(15)	(20)	—	—
Assets backing life shareholders' funds	10	(15)	(40)	45	(45)	—	—	—
Total excluding Delta Lloyd and United States	(290)	180	(585)	120	(165)	(130)	(50)	(520)
United States	880	(640)	495	—	—	—	—	—
Total excluding Delta Lloyd	590	(460)	(90)	120	(165)	(130)	(50)	(520)

31 December 2012 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
Insurance Participating	(45)	(15)	(110)	60	(95)	(25)	(5)	(50)
Insurance non-participating	(165)	125	(430)	—	—	(75)	(45)	(470)
Investment participating	(55)	45	—	5	(10)	(10)	—	—
Investment non-participating	(45)	40	—	10	(15)	(20)	—	—
Assets backing life shareholders' funds	(5)	—	(45)	50	(50)	—	—	—
Total excluding Delta Lloyd and United States	(315)	195	(585)	125	(170)	(130)	(50)	(520)
United States	—	—	—	—	—	—	—	—
Total excluding Delta Lloyd	(315)	195	(585)	125	(170)	(130)	(50)	(520)

Changes in sensitivities between HY13 and FY12 reflect movements in market interest rates, portfolio growth, changes to asset mix and the relative durations of assets and liabilities and asset liability management actions. The sensitivities to economic movements (excluding the United States) relate mainly to business in the UK. In general, a fall in market interest rates has a beneficial impact on non-participating business, due to the increase in market value of fixed interest securities and the relative durations of assets and liabilities; similarly a rise in interest rates has a negative impact. The mortality sensitivities also relate primarily to the UK.

In the United States, most debt securities are classified as AFS for which movements in unrealised gains or losses are taken directly to shareholders' equity. This limits the overall sensitivity of IFRS profit to interest rate and credit spread movements. Following the classification of the business as held for sale in 2012 it was remeasured to fair value less costs to sell. It has been assumed that economic movements would not materially impact the fair value less costs to sell and the impact on shareholders' equity is therefore reported as £nil. As a result, were economic movements to occur, the corresponding movements in AFS assets which would be taken directly to shareholders' equity are reversed out through profit before tax in order to maintain the remeasurement value of the US at fair value less costs to sell.

C3 – IFRS Sensitivity analysis continued

(e) General insurance and health businesses

30 June 2013 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	(280)	265	(125)	50	(50)	(70)	(150)
Net of reinsurance	(330)	320	(125)	50	(50)	(70)	(145)
30 June 2013 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance	(280)	265	(125)	50	(50)	(25)	(150)
Net of reinsurance	(330)	320	(125)	50	(50)	(25)	(145)
31 December 2012 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance excluding Delta Lloyd	(260)	235	(125)	45	(50)	(120)	(300)
Net of reinsurance excluding Delta Lloyd	(300)	285	(125)	45	(50)	(120)	(285)
31 December 2012 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
Gross of reinsurance excluding Delta Lloyd	(260)	235	(125)	50	(50)	(25)	(300)
Net of reinsurance excluding Delta Lloyd	(300)	285	(125)	50	(50)	(25)	(285)

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

(f) Fund management and other operations businesses¹

30 June 2013 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	(5)	5	30	(30)	55
30 June 2013 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total	(5)	5	30	(30)	55
31 December 2012 Impact on profit before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total excluding Delta Lloyd	(5)	—	30	(90)	10
31 December 2012 Impact on shareholders' equity before tax £m	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
Total excluding Delta Lloyd	(5)	—	30	(90)	10

¹ The Fund management and other operations are not shown excluding the United States as their sensitivities are immaterial to the group.

(g) Delta Lloyd

The FY12 sensitivities contained in the above tables exclude any contribution from Delta Lloyd following deconsolidation of this business.

C3 – IFRS Sensitivity analysis continued

(h) Limitations of sensitivity analysis

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

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

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

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

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

Analysis of assets

D1 – Total assets

As an insurance business, Aviva 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. In addition, to support this, Aviva also uses a variety of hedging and other risk management strategies to diversify away any residual mis-match risk that is outside of the Group's risk appetite.

30 June 2013	Policyholder assets £m	Participating fund assets £m	Shareholder assets £m	Total assets analysed £m	Less assets of operations classified as held for sale £m	Balance sheet total £m
Goodwill and acquired value of in-force business and intangible assets	—	—	3,095	3,095	(496)	2,599
Interests in joint ventures and associates	50	1,102	363	1,515	(13)	1,502
Property and equipment	—	206	189	395	—	395
Investment property	4,060	5,519	259	9,838	(6)	9,832
Loans	461	5,898	21,650	28,009	(3,784)	24,225
Financial investments						
Debt securities	14,780	84,883	61,805	161,468	(33,079)	128,389
Equity securities	22,442	11,134	1,095	34,671	(107)	34,564
Other investments	25,578	3,557	2,280	31,415	(1,698)	29,717
Reinsurance assets	1,553	635	5,431	7,619	(712)	6,907
Deferred tax assets	—	—	247	247	(13)	234
Current tax assets	—	—	96	96	(7)	89
Receivables	549	2,414	5,404	8,367	(386)	7,981
Deferred acquisition costs and other assets	4	420	5,409	5,833	(2,416)	3,417
Prepayments and accrued income	132	1,300	1,752	3,184	(480)	2,704
Cash and cash equivalents	4,790	10,838	10,412	26,040	(965)	25,075
Additional impairment to write down the disposal group to fair value less costs to sell	—	—	(2,450)	(2,450)	2,450	—
Assets of operations classified as held for sale	—	—	—	—	41,712	41,712
Total	74,399	127,906	117,037	319,342	—	319,342
Total %	23.3%	40.1%	36.6%	100.0%	—	100.0%
FY12 restated	73,968	125,366	115,409	314,743	—	314,743
FY12 Total %	23.5%	39.8%	36.7%	100.0%	—	100.0%

As at 30 June 2013, 36.6% of Aviva's total asset base was shareholder assets, 40.1% participating assets where Aviva shareholders have partial exposure, and 23.3% policyholder assets where Aviva shareholders have no exposure. Of the total assets (excluding assets held for sale), investment property, loans and financial investments comprise £226.7 billion, compared to £223.5 billion at 31 December 2012.

D2 – Total assets – Valuation bases/fair value hierarchy

	Fair value £m	Amortised cost £m	Equity accounted/ tax assets ¹ £m	Total £m
Total assets – 30 June 2013				
Goodwill and acquired value of in-force business and intangible assets	—	3,095	—	3,095
Interests in joint ventures and associates	—	—	1,515	1,515
Property and equipment	261	134	—	395
Investment property	9,838	—	—	9,838
Loans	18,489	9,520	—	28,009
Financial investments				
Debt securities	161,468	—	—	161,468
Equity securities	34,671	—	—	34,671
Other investments	31,415	—	—	31,415
Reinsurance assets	—	7,619	—	7,619
Deferred tax assets	—	—	247	247
Current tax assets	—	—	96	96
Receivables and other financial assets	—	8,367	—	8,367
Deferred acquisition costs and other assets	—	5,833	—	5,833
Prepayments and accrued income	—	3,184	—	3,184
Additional impairment to write down the disposal group to fair value less costs to sell	—	(2,450)	—	(2,450)
Cash and cash equivalents	26,040	—	—	26,040
Total	282,182	35,302	1,858	319,342
Total %	88.4%	11.0%	0.6%	100.0%
Assets of operations classified as held for sale	35,913	5,740	59	41,712
Total (excluding assets held for sale)	246,269	29,562	1,799	277,630
Total % (excluding assets held for sale)	88.8%	10.6%	0.6%	100.0%
FY12 restated	278,464	34,210	2,069	314,743
FY12 Total %	88.4%	10.9%	0.7%	100.0%

¹ Within the Group's statement of financial position, assets are recognised for deferred tax and current tax. The valuation basis of these 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.

	Fair value £m	Amortised cost £m	Equity accounted/ tax assets ¹ £m	Total £m
Total assets – Policyholder assets 30 June 2013				
Goodwill and acquired value of in-force business and intangible assets	—	—	—	—
Interests in joint ventures and associates	—	—	50	50
Property and equipment	—	—	—	—
Investment property	4,060	—	—	4,060
Loans	—	461	—	461
Financial investments				
Debt securities	14,780	—	—	14,780
Equity securities	22,442	—	—	22,442
Other investments	25,578	—	—	25,578
Reinsurance assets	—	1,553	—	1,553
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	549	—	549
Deferred acquisition costs and other assets	—	4	—	4
Prepayments and accrued income	—	132	—	132
Cash and cash equivalents	4,790	—	—	4,790
Total	71,650	2,699	50	74,399
Total %	96.3%	3.6%	0.1%	100.0%
Assets of operations classified as held for sale	74	—	—	74
Total (excluding assets held for sale)	71,576	2,699	50	74,325
Total % (excluding assets held for sale)	96.3%	3.6%	0.1%	100.0%
FY12 restated	71,196	2,701	71	73,968
FY12 Total %	96.3%	3.6%	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.

D2 – Total assets – Valuation bases/fair value hierarchy continued

	Fair value £m	Amortised cost £m	Equity accounted/ tax assets ¹ £m	Total £m
Total assets – Participating fund assets 30 June 2013				
Goodwill and acquired value of in-force business and intangible assets	—	—	—	—
Interests in joint ventures and associates	—	—	1,102	1,102
Property and equipment	135	71	—	206
Investment property	5,519	—	—	5,519
Loans	925	4,973	—	5,898
Financial investments				
Debt securities	84,883	—	—	84,883
Equity securities	11,134	—	—	11,134
Other investments	3,557	—	—	3,557
Reinsurance assets	—	635	—	635
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	2,414	—	2,414
Deferred acquisition costs and other assets	—	420	—	420
Prepayments and accrued income	—	1,300	—	1,300
Cash and cash equivalents	10,838	—	—	10,838
Total	116,991	9,813	1,102	127,906
Total %	91.5%	7.7%	0.8%	100.0%
Assets of operations classified as held for sale	3,740	484	32	4,256
Total (excluding assets held for sale)	113,251	9,329	1,070	123,650
Total % (excluding assets held for sale)	91.6%	7.5%	0.9%	100.0%
FY12 restated	114,532	9,603	1,231	125,366
FY12 Total %	91.4%	7.6%	1.0%	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.

	Fair value £m	Amortised cost £m	Equity accounted/ tax assets ¹ £m	Total £m
Total assets – Shareholders assets 30 June 2013				
Goodwill and acquired value of in-force business and intangible assets	—	3,095	—	3,095
Interests in joint ventures and associates	—	—	363	363
Property and equipment	126	63	—	189
Investment property	259	—	—	259
Loans	17,564	4,086	—	21,650
Financial investments				
Debt securities	61,805	—	—	61,805
Equity securities	1,095	—	—	1,095
Other investments	2,280	—	—	2,280
Reinsurance assets	—	5,431	—	5,431
Deferred tax assets	—	—	247	247
Current tax assets	—	—	96	96
Receivables and other financial assets	—	5,404	—	5,404
Deferred acquisition costs and other assets	—	5,409	—	5,409
Prepayments and accrued income	—	1,752	—	1,752
Additional impairment to write down the disposal group to fair value less costs to sell	—	(2,450)	—	(2,450)
Cash and cash equivalents	10,412	—	—	10,412
Total	93,541	22,790	706	117,037
Total %	79.9%	19.5%	0.6%	100.0%
Assets of operations classified as held for sale	32,099	5,256	27	37,382
Total (excluding assets held for sale)	61,442	17,534	679	79,655
Total % (excluding assets held for sale)	77.1%	22.0%	0.9%	100.0%
FY12 restated	92,736	21,906	767	115,409
FY12 Total %	80.4%	19.0%	0.6%	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.

D2 – Total assets – Valuation bases/fair value hierarchy continued**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' in accordance with the fair value methodology disclosed in Note B17 in the consolidated financial statements (IFRS section).

Financial assets of operations classified as held for sale have been analysed by underlying financial assets in the following tables.

	Fair value hierarchy				Amortised cost £m	Less: Assets of operations classified as held for sale £m	Balance sheet total £m
	Level 1 £m	Level 2 £m	Level 3 £m	Sub-total fair value £m			
Investment property and financial assets - total 30 June 2013							
Investment property	—	9,838	—	9,838	—	(6)	9,832
Loans	—	18,489	—	18,489	9,520	(3,784)	24,225
Debt securities	110,516	41,445	9,507	161,468	—	(33,079)	128,389
Equity securities	34,110	76	485	34,671	—	(107)	34,564
Other investments (including derivatives)	22,743	5,781	2,891	31,415	—	(1,698)	29,717
Assets of operations classified as held for sale	—	—	—	—	—	38,674	38,674
Total	167,369	75,629	12,883	255,881	9,520	—	265,401
Total %	63.0%	28.5%	4.9%	96.4%	3.6%	—	100.0%
Assets of operations classified as held for sale	2,231	31,884	833	34,948	3,726	—	38,674
Total (excluding assets held for sale)	165,138	43,745	12,050	220,933	5,794	—	226,727
Total % (excluding assets held for sale)	72.8%	19.3%	5.3%	97.4%	2.6%	—	100.0%
FY12 restated	162,731	78,396	13,440	254,567	8,961	—	263,528
FY12 Total %	61.8%	29.7%	5.1%	96.6%	3.4%	—	100.0%

At 30 June 2013, the proportion of total financial assets and investment property classified as Level 1 in the fair value hierarchy has increased slightly to 63.0% (FY12: 61.8%). Level 2 and Level 3 financial investments, loans and investment properties have reduced marginally to 28.5% (FY12: 29.7%) and 4.9% (FY12: 5.1%), respectively. Excluding assets classified as held for sale, the proportion of Level 1 assets at 30 June 2013 increases to 72.8% with Level 2 assets reducing to 19.3% reflecting the impact of the higher proportion of Level 2 debt securities within the US business (see D3.3.1).

D3 – Analysis of asset quality

The analysis of assets that follows provides information about the assets held by the Group. The amounts in individual line items below may differ from those presented in the IFRS section of this document, as it includes assets which are held for sale.

D3.1 – Investment property

	30 June 2013				Restated 31 December 2012			
	Fair value hierarchy			Total £m	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m		Level 1 £m	Level 2 £m	Level 3 £m	
Investment property - Total								
Leased to third parties under operating leases	—	9,819	—	9,819	—	9,946	—	9,946
Vacant investment property/held for capital appreciation	—	19	—	19	—	11	—	11
Total	—	9,838	—	9,838	—	9,957	—	9,957
Total %	—	100.0%	—	100.0%	—	100.0%	—	100.0%
Assets of operations classified as held for sale	—	6	—	6	—	18	—	18
Total (excluding assets held for sale)	—	9,832	—	9,832	—	9,939	—	9,939
Total % (excluding assets held for sale)	—	100.0%	—	100.0%	—	100.0%	—	100.0%

	30 June 2013				Restated 31 December 2012			
	Fair value hierarchy			Total £m	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m		Level 1 £m	Level 2 £m	Level 3 £m	
Investment property - Shareholder assets								
Leased to third parties under operating leases	—	249	—	249	—	243	—	243
Vacant investment property/held for capital appreciation	—	10	—	10	—	10	—	10
Total	—	259	—	259	—	253	—	253
Total %	—	100.0%	—	100.0%	—	100.0%	—	100.0%
Assets of operations classified as held for sale	—	6	—	6	—	6	—	6
Total (excluding assets held for sale)	—	253	—	253	—	247	—	247
Total % (excluding assets held for sale)	—	100.0%	—	100.0%	—	100.0%	—	100.0%

97.4% (FY12: 97.5%) of total investment properties by value are held in unit-linked or participating funds. Shareholder exposure to investment properties is principally through investments in Property Limited Partnerships (PLPs). Depending on the Group's interest in these PLPs, its investments are classified as either interests in joint ventures, unit trusts or consolidated as a subsidiary, in which case the underlying investment properties held by the PLP are included on the balance sheet.

Investment properties are stated at their market values as assessed by qualified external independent valuers or by local qualified staff of the Group in overseas operations, all with recent relevant experience. Values are calculated using a discounted cash flow approach and are based on current rental income plus anticipated uplifts at the next rent review, lease expiry or break option taking into consideration lease incentives, assuming no future growth in the estimated rental value of the property. This uplift and the discount rate are derived from rates implied by recent market transactions on similar properties. The basis of valuation therefore naturally falls to be classified as Level 2. Valuations are typically undertaken on a quarterly (and in some cases monthly) basis.

99.8% (FY12: 99.9%) of total investment properties by value are leased to third parties under operating leases, with the remainder either being vacant or held for capital appreciation.

D3 – Analysis of asset quality continued

D3.2 - Loans

The Group loan portfolio is principally made up of:

- Policy loans which are generally collateralised by a lien or charge over the underlying policy;
- Loans and advances to banks, which primarily relate to loans of cash collateral received in stock lending transactions. These loans are fully collateralised by other securities;
- Mortgage loans collateralised by property assets; and
- Other loans, which include loans to brokers and intermediaries.

Loans with fixed maturities, including policy loans, mortgage loans (at amortised cost) 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 as an adjustment to loan yield using the effective interest rate method.

For certain mortgage loans, the Group has taken advantage of the fair value option under IAS 39 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. The mortgage loans are not traded in active markets. These investments are valued using internal models with market observable inputs such as current property values and credit assumptions, which support classification as Level 2.

Loans - Total 30 June 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	28	855	—	31	437	1,351
Loans and advances to banks	4,413	—	—	—	—	4,413
Mortgage loans	18,679	1	—	—	3,345	22,025
Other loans	94	38	86	—	2	220
Total	23,214	894	86	31	3,784	28,009
Total %	82.9%	3.2%	0.3%	0.1%	13.5%	100.0%
Assets of operations classified as held for sale	—	—	—	—	3,784	3,784
Total (excluding assets held for sale)	23,214	894	86	31	—	24,225
Total % (excluding assets held for sale)	95.8%	3.7%	0.4%	0.1%	—	100.0%
FY12 Total	23,562	862	83	30	3,397	27,934
FY12 Total %	84.3%	3.1%	0.3%	0.1%	12.2%	100.0%

Loans - Shareholder assets 30 June 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	8	12	—	10	244	274
Loans and advances to banks	249	—	—	—	—	249
Mortgage loans	17,755	—	—	—	3,178	20,933
Other loans	94	12	86	—	2	194
Total	18,106	24	86	10	3,424	21,650
Total %	83.6%	0.1%	0.5%	—	15.8%	100.0%
Assets of operations classified as held for sale	—	—	—	—	3,424	3,424
Total (excluding assets held for sale)	18,106	24	86	10	—	18,226
Total % (excluding assets held for sale)	99.3%	0.1%	0.5%	0.1%	—	100.0%
FY12 Total	18,558	14	83	31	3,081	21,767
FY12 Total %	85.2%	0.1%	0.4%	0.1%	14.2%	100.0%

The value of the Group's loan portfolio (including Policyholder, Participating Fund and Shareholder assets), at 30 June 2013 stood at £28.0 billion (FY12: £27.9 billion), an increase of £0.1 billion. Excluding assets held for sale, the Group's loan portfolio amounts to £24.2 billion.

The total shareholder exposure to loans decreased to £21.6 billion (FY12: £21.8 billion), and represented 77% of the total loan portfolio, with the remaining 23% split between participating funds (£5.9 billion) and policyholder assets (£0.5 billion).

Of the Group's total loan portfolio (including Policyholder, Participating Fund and Shareholder assets), 79% (FY12: 79%) is invested in mortgage loans.

D3 – Analysis of asset quality continued**D3.2 – Loans continued****Mortgage loans – Shareholder assets**

	United Kingdom & Ireland £m	United States £m	Total £m
30 June 2013			
Non-securitised mortgage loans			
– Residential (Equity release)	3,156	—	3,156
– Commercial	8,371	3,178	11,549
– Healthcare	4,064	—	4,064
	15,591	3,178	18,769
Securitised mortgage loans	2,164	—	2,164
Total	17,755	3,178	20,933
Assets of operations classified as held for sale	—	3,178	3,178
Total (excluding assets held for sale)	17,755	—	17,755
FY12 Total	18,211	2,859	21,070

The Group's mortgage loan portfolio spans several business units, primarily in the UK and USA, and across various sectors, including residential loans, commercial loans and government supported healthcare loans. Aviva's shareholder exposure to mortgage loans accounts for 97% of total shareholder asset loans. This section focuses on explaining the shareholder risk within these exposures.

United Kingdom & Ireland
(Non-securitised mortgage loans)
Residential

The UK non-securitised residential mortgage portfolio has a total current value of £3.2 billion (FY12: £3.2 billion). Movements during the period include £195 million of new loans and accrued interest, £38 million of redemptions and £198 million of fair value losses. These mortgages are all in the form of equity release, whereby homeowners mortgage their property to release cash equity. Due to the low relative levels of equity released in each property, they predominantly have a Loan to Value ("LTV") of below 70%, and the average LTV across the portfolio is approximately 29.8% (FY12: 29.6%).

Healthcare

Primary Healthcare & PFI businesses loans included within shareholder assets are £4.1 billion (FY12: £4.1 billion) and are secured against General Practitioner premises, other primary health related premises or other 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 and premises 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 91%, although as explained above, we do not consider this to be a key risk indicator. Income support from the Government bodies and the social need for these premises provide sustained income stability. Aviva therefore considers these loans to be lower risk.

Commercial

Gross exposure by loan to value and arrears is shown in the table below.

Shareholder assets

	>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
30 June 2013											
Not in arrears	142	168	616	766	1,401	1,268	392	791	947	1,384	7,875
0 – 3 months	—	—	—	—	—	82	—	—	—	—	82
3 – 6 months	—	—	—	—	—	32	67	2	—	—	101
6 – 12 months	—	—	—	—	—	56	1	3	—	—	60
> 12 months	—	—	—	—	—	151	102	—	—	—	253
Total	142	168	616	766	1,401	1,589	562	796	947	1,384	8,371

Of the total £8.4 billion of UK non-securitised commercial mortgage loans in the shareholder fund, £8.1 billion are held by our UK Life business to back annuity liabilities, and are stated on a fair value basis. The loan exposures for our UK Life business are calculated on a discounted cash flow basis, and include a risk adjustment through the use of Credit Risk Adjusted Value ("CRAV") methods.

Aviva UK General Insurance hold the remaining £0.3 billion of loans which are stated on an amortised cost basis and are subject to impairment review, using a fair value methodology calibrated to the UK Life approach, adjusted for specific portfolio characteristics.

D3 – Analysis of asset quality continued

D3.2 – Loans continued

For the commercial mortgages held by the UK Life and UK General Insurance business, loan service collection ratios, a key indicator of mortgage portfolio performance, decreased slightly during the period. Loan Interest Cover ("LIC"), which is defined as the annual net rental income (including rental deposits and less ground rent) divided by the annual loan interest service, decreased to 1.37x (FY12: 1.40x). Mortgage LTVs decreased during the half year from 95% to 91% (CRAV basis) largely due to an increase in gilt spot rates (on average 42bps) causing the value of the mortgage assets to decrease, (average property values have fallen c0.6% since end 2012).

All loans in arrears have been assessed for impairment. Of the £496 million (FY12: £446 million) value of all loans in arrears included within our shareholder assets, the interest and capital amount in arrears is only £4.1 million.

Although portfolio level metrics are stable or improved, reflecting the quality of new lending, there has been a rise in impairments, restructuring of loans and requests for forbearance. These relate to loans made prior to the current financial downturn, with particular exposure to the retail sector in the north of England. As a result we have increased allowances on commercial mortgages (including healthcare and PFI mortgages) to £1.5 billion (FY12: £1.2 billion including an implicit reinvestment risk margin of £0.2 billion) against the risk of default on our riskier mortgages. This includes a net increase of £0.3 billion and explicit recognition of the £0.2 billion margin previously held implicitly. For the mortgages with an LTV of greater than 100% there is negative equity at today's property prices of circa £1.3 billion compared with the underlying value of the properties. The provision of £1.5 billion therefore would be available to contribute to this amount.

The valuation allowance (including supplementary allowances) of £1.5 billion made in the UK Life business for commercial mortgages, including healthcare and PFI mortgages, held by Aviva Annuity UK Limited and carried at fair value equates to 128 bps at 30 June 2013 (FY12: 89 bps).

The total valuation allowance held by Aviva Annuity UK Limited in respect of corporate bonds and mortgages, including healthcare and PFI mortgages, is £2.2 billion (FY12: £2.0 billion – including the implicit margin of £0.2 billion) over the remaining term of the UK Life corporate bond and mortgage portfolio.

In addition, we hold £127 million (FY12: £118 million) of impairment provisions in our UK General Insurance mortgage portfolio, which is carried at amortised cost.

The UK portfolio remains 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 still retains the option of selling the security or restructuring the loans and benefiting from the protection of the collateral. A combination of these benefits and the higher recovery levels afforded by property collateral (compared to corporate debt or other uncollateralised credit exposures) should result in the economic exposure being significantly lower than the gross exposure reported above.

Securitised mortgage loans

Funding for the securitised residential mortgage assets (£2.2 billion) was obtained by issuing loan note securities. Of these loan notes approximately £260 million are held by Aviva shareholder funds. The remainder are held by third parties external to Aviva. As any cash shortfall arising once all mortgages have redeemed is borne by the loan note holders, the majority of the credit risk of these mortgages is borne by third parties. Securitised residential mortgages held are predominantly issued through vehicles in the UK.

United States

(Non-securitised mortgage loans)

Commercial

Gross exposure by loan to value and arrears is shown in the table below.

Shareholder assets

30 June 2013	>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
Neither past due nor impaired	10	—	3	—	3	15	39	135	543	2,429	3,177
0 – 3 months	—	—	—	—	—	—	—	—	—	—	—
3 – 6 months	—	—	—	—	—	—	—	—	—	—	—
6 – 12 months	—	—	—	—	—	—	—	—	—	1	1
> 12 months	—	—	—	—	—	—	—	—	—	—	—
Total	10	—	3	—	3	15	39	135	543	2,430	3,178

Aviva USA currently holds £3.2 billion (FY12: £2.9 billion) of commercial mortgages included within shareholder assets. These mortgages continue to perform well, reflecting:

- Low underwriting LTVs (shall not exceed 80% at the time of issuance), and consequently a portfolio with an average LTV of 61% (FY12: 61%);
- A highly diversified portfolio, with strong volumes in many states with more stable economies and related real estate values; and
- Strong LIC ratios, with 96% of the loans having an LIC above 1.4x, and 0.9% with LIC below 1.0x.

As at 30 June 2013, the actual amount of interest payments in arrears was £1 million.

D3 – Analysis of asset quality continued

D3.3 – Financial investments

	30 June 2013				Restated 31 December 2012			
	Cost/ amortised cost £m	Unrealised gains £m	Impairments and unrealised losses £m	Fair value £m	Cost/ amortised cost £m	Unrealised gains £m	Impairments and unrealised losses £m	Fair value £m
Financial investments - Total								
Debt securities	150,832	13,599	(2,963)	161,468	147,822	16,439	(2,030)	162,231
Equity securities	30,155	6,578	(2,062)	34,671	31,453	5,067	(2,177)	34,343
Other investments	30,743	2,513	(1,841)	31,415	27,946	2,063	(1,149)	28,860
Total	211,730	22,690	(6,866)	227,554	207,221	23,569	(5,356)	225,434
Assets of operations classified as held for sale	33,094	3,193	(1,403)	34,884	32,834	3,762	(181)	36,415
Total (excluding assets held for sale)	178,636	19,497	(5,463)	192,670	174,387	19,807	(5,175)	189,019

Aviva holds large quantities of high quality bonds, primarily to match our liability to make guaranteed payments to policyholders. Some credit risk is taken, partly to increase returns to policyholders and partly to optimise the risk/return profile for shareholders. The risks are consistent with the products we offer and the related investment mandates, and are in line with our risk appetite.

The Group also holds equities, the majority of which are held in participating funds and policyholder funds, where they form an integral part of the investment expectations of policyholders and follow well-defined investment mandates. Some equities are also held in shareholder funds. The vast majority of equity investments are valued at quoted market prices.

D3.3.1 – Debt securities

Debt securities – Shareholder assets 2013	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m	
UK Government	3,916	140	—	4,056
Non-UK Government	7,459	4,517	37	12,013
Europe	6,638	426	37	7,101
North America	481	3,724	—	4,205
Asia Pacific & Other	340	367	—	707
Corporate bonds – Public utilities	2,869	3,186	20	6,075
Corporate convertible bonds	—	73	53	126
Other corporate bonds	9,527	23,989	431	33,947
Other	1,556	3,992	40	5,588
Total	25,327	35,897	581	61,805
Total %	41.0%	58.1%	0.9%	100.0%
Assets of operations classified as held for sale	296	29,217	248	29,761
Total (excluding assets held for sale)	25,031	6,680	333	32,044
Total % (excluding assets held for sale)	78.1%	20.8%	1.1%	100.0%
FY12 restated	25,046	36,234	427	61,707
FY12 Total %	40.6%	58.7%	0.7%	100.0%

0.9% (FY12: 0.7%) of shareholder exposure to debt securities and 1.1% excluding assets held for sale is fair valued using models with significant unobservable market parameters (classified as Fair Value Level 3). Where estimates are used, these are based on a combination of independent third party evidence and internally developed models, calibrated to market observable data where possible.

41.0% (FY12: 40.6%) of shareholder exposure to debt securities is based on quoted prices in an active market and are therefore classified as Fair Value Level 1. The majority of the debt instruments in Level 2 are held by our US and Canadian businesses. These debt instruments are valued by independent pricing firms in accordance with usual market practice in that region and consistent with other companies operating in the region are classified as Level 2 in the Fair Value hierarchy. Excluding our US and Canadian businesses, the proportion of shareholder debt securities classified as Level 1 in the Fair Value hierarchy would be 87.2% (FY12: 84.3%); while excluding assets held for sale (including our US business) 78.1% of shareholder debt securities are classified as Level 1.

D3 – Analysis of asset quality continued**D3.3 – Financial investments continued****D3.3.1 – Debt securities continued**

Debt securities – Shareholder assets 2013	External ratings						Total £m
	AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	
Government							
UK Government	—	3,813	44	—	—	184	4,041
UK local authorities	—	11	—	—	—	4	15
Non-UK Government	4,647	4,513	1,058	1,692	51	52	12,013
	4,647	8,337	1,102	1,692	51	240	16,069
Corporate							
Public utilities	23	146	3,600	2,020	65	221	6,075
Convertibles and bonds with warrants	—	—	19	107	—	—	126
Other corporate bonds	1,836	2,951	11,836	11,487	1,484	4,353	33,947
	1,859	3,097	15,455	13,614	1,549	4,574	40,148
Certificates of deposits	—	—	—	6	141	204	351
Structured							
RMBS ¹ non-agency ALT A	—	—	—	—	—	—	—
RMBS ¹ non-agency prime	47	21	—	—	—	—	68
RMBS ¹ agency	773	—	—	—	—	—	773
	820	21	—	—	—	—	841
CMBS ²	1,659	486	265	269	128	—	2,807
ABS ³	322	297	122	15	59	10	825
CDO (including CLO) ⁴	—	—	—	—	8	—	8
ABCP ⁵	30	—	—	—	—	23	53
	2,011	783	387	284	195	33	3,693
Wrapped credit	1	15	260	77	36	46	435
Other	29	16	78	57	75	13	268
Total	9,367	12,269	17,282	15,730	2,047	5,110	61,805
Total %	15.2%	19.9%	28.0%	25.5%	3.2%	8.2%	100.0%
Assets of operations classified as held for sale	3,288	3,227	8,988	10,414	1,501	2,343	29,761
Total (excluding assets held for sale)	6,079	9,042	8,294	5,316	546	2,767	32,044
Total % (excluding assets held for sale)	19.0%	28.2%	25.9%	16.6%	1.7%	8.6%	100.0%
FY12 restated	12,288	8,877	17,780	15,424	1,924	5,414	61,707
FY12 Total %	19.9%	14.4%	28.8%	25.0%	3.1%	8.8%	100.0%

1 RMBS – Residential Mortgage Backed Security.

2 CMBS – Commercial Mortgage Backed Security.

3 ABS – Asset Backed Security.

4 CDO – Collateralised Debt Obligation, CLO – Collateralised Loan Obligation.

5 ABCP – Asset Backed Commercial Paper.

The overall quality of the book remains strong, despite the continuing downgrade activity by the major rating agencies during the period. 26% of shareholder exposure to debt securities is in government holdings (FY12: 25%). Our corporate debt securities portfolio represents 65% (FY12: 66%) of total shareholder debt securities.

The majority of non-rated corporate bonds are held by our businesses in the UK and US.

At 30 June 2013, the proportion of our shareholder debt securities that are investment grade remained stable at 88.6% (FY12: 88.1%). The remaining 11.4% of shareholder debt securities that do not have an external rating of BBB or higher can be split as follows:

- 3.2% are debt securities that are rated as below investment grade;
- 3.5% are US private placements which are not rated by the major rating agencies, but are rated as investment grade by the Securities Valuation Office of the National Association of Insurance Commissioners (NAIC), a US national regulatory agency; and,
- 4.7% are not rated by the major rating agencies or the NAIC.

Of the securities not rated by an external agency or NAIC 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 £2.5 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.

The majority of the Residential Mortgage-Backed Securities (RMBS) are U.S. investments and over 89% of this exposure is backed by one of the U.S. Government Sponsored Entities (GSEs) including Fannie Mae and Freddie Mac which, under the conservatorship arrangements implemented in September 2008, have an implicit guarantee, although they are not expressly backed by the full faith and credit of the U.S. Government.

The Group has extremely limited exposure to CDOs, CLOs and 'Sub-prime' debt securities.

Asset backed securities (ABS) are held primarily by our UK (£519 million) and US (£305 million) businesses. 91.6% of the Group's shareholder holdings in ABS are investment grade. ABS that either have a rating below BBB or are not rated represent approximately 0.1% of shareholder exposure to debt securities.

D3 – Analysis of asset quality continued**D3.3.2 – Equity securities**

	30 June 2013				Restated 31 December 2012			
	Fair value hierarchy			Total £m	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m		Level 1 £m	Level 2 £m	Level 3 £m	
Equity securities – Shareholder assets								
Public utilities	3	—	—	3	18	—	—	18
Banks, trusts and insurance companies	131	58	328	517	644	72	327	1,043
Industrial miscellaneous and all other	227	—	16	243	112	—	12	124
Non-redeemable preferred shares	332	—	—	332	323	—	—	323
Total	693	58	344	1,095	1,097	72	339	1,508
Total %	63.3%	5.3%	31.4%	100.0%	72.7%	4.8%	22.5%	100.0%
Assets of operations classified as held for sale	1	56	3	60	11	61	—	72
Total (excluding assets held for sale)	692	2	341	1,035	1,086	11	339	1,436
Total % (excluding assets held for sale)	66.9%	0.2%	32.9%	100.0%	75.6%	0.8%	23.6%	100.0%

63.3% of our shareholder exposure to equity securities is based on quoted prices in an active market and as such is classified as Level 1 (FY12: 72.7%). The decrease in Level 1 shareholder equity securities reflects the sale of our holding in Delta Lloyd during the period. Excluding assets of operations classified as held for sale, 66.9% of shareholder exposure is to equities that are Level 1 (FY12: 75.6%).

Shareholder investments include a strategic holding in Italian banks of £294 million (£150 million, net of any non-controlling interest share in the Group companies that own the investments).

D3.3.3 – Other investments

	30 June 2013				Restated 31 December 2012			
	Fair value hierarchy			Total £m	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m		Level 1 £m	Level 2 £m	Level 3 £m	
Other investments – Shareholders assets								
Unit trusts and other investment vehicles	196	50	436	682	261	22	416	699
Derivative financial instruments	70	1,175	11	1,256	174	896	47	1,117
Deposits with credit institutions	128	11	26	165	143	11	26	180
Minority holdings in property management undertakings	—	116	—	116	—	115	—	115
Other	10	—	51	61	10	—	47	57
Total	404	1,352	524	2,280	588	1,044	536	2,168
Total %	17.7%	59.3%	23.0%	100.0%	27.1%	48.2%	24.7%	100.0%
Assets of operations classified as held for sale	70	996	440	1,506	169	658	396	1,223
Total (excluding assets held for sale)	334	356	84	774	419	386	140	945
Total % (excluding assets held for sale)	43.2%	46.0%	10.8%	100.0%	44.4%	40.8%	14.8%	100.0%

In total 77.0% (FY12: 75.3%) of shareholder other investments, are classified as Level 1 or 2 in the fair value hierarchy. The unit trusts and other investment vehicles invest in a variety of assets, which can include cash equivalents, debt, equity and property securities. Excluding assets classified as held for sale, 89.2% of shareholder exposure is to other investments that are Level 1 or 2.

D3.3.4 – Available for sale investments – Impairments and duration and amount of unrealised losses

The total impairment expense for the six months to 30 June 2013 for AFS debt securities was £7 million (FY12: £12 million). The total AFS impairment expense relates to corporate bonds that are not yet in default but showed continued deterioration in market value from the previous impairment value.

Total unrealised losses on AFS debt securities, equity securities and other investments at 30 June 2013 were £1,175 million (FY12: £74 million), £3 million (FY12: £nil) and £12 million (FY12: £5 million) respectively. This increase includes an unrealised loss on AFS debt securities of £1,169 million attributable to the US operations of the Group, and is a result of a significant increase in the 10 year Treasury yield curve rate, which has adversely affected the value of the Groups' investments in US debt securities.

D3 – Analysis of asset quality continued**D3.3 – Financial investments continued****D3.3.5 – Exposures to peripheral European countries**

Included in our debt securities and other financial assets are exposures to peripheral European countries. All of these assets are valued on a mark to market basis under IAS 39, and therefore our statement of financial position and income statement already reflect any reduction in value between the date of purchase and the balance sheet date. The significant majority of these holdings are within our participating funds where the risk to our shareholders is governed by the nature and extent of our participation within those funds.

Net of non-controlling interests, our direct shareholder and participating fund asset exposure to the government (and local authorities and agencies) of Italy is £4.9 billion (FY12: £4.9 billion). Gross of non-controlling interests, 94% of our shareholder asset exposure to Italy arises from the investment exposure of our Italian business.

Direct sovereign exposures to Greece, Ireland, Portugal, Italy and Spain (net of non-controlling interests, excluding policyholder assets)

	Participating		Shareholder		Total	
	30 June 2013 £bn	31 December 2012 £bn	30 June 2013 £bn	31 December 2012 £bn	30 June 2013 £bn	31 December 2012 £bn
Greece	—	—	—	—	—	—
Ireland	0.4	0.4	—	—	0.4	0.4
Portugal	0.3	0.3	—	—	0.3	0.3
Italy	4.5	4.5	0.4	0.4	4.9	4.9
Spain	0.8	0.9	0.5	0.5	1.3	1.4
Total Greece, Ireland, Portugal, Italy and Spain	6.0	6.1	0.9	0.9	6.9	7.0

Direct sovereign exposures to Greece, Ireland, Portugal, Italy and Spain (gross of non-controlling interests, excluding policyholder assets)

	Participating		Shareholder		Total	
	30 June 2013 £bn	31 December 2012 £bn	30 June 2013 £bn	31 December 2012 £bn	30 June 2013 £bn	31 December 2012 £bn
Greece	—	—	—	—	—	—
Ireland	0.4	0.4	—	—	0.4	0.4
Portugal	0.2	0.3	—	—	0.2	0.3
Italy	8.6	8.5	0.6	0.6	9.2	9.1
Spain	1.2	1.3	0.9	0.9	2.1	2.2
Total Greece, Ireland, Portugal, Italy and Spain	10.4	10.5	1.5	1.5	11.9	12.0

D3 – Analysis of asset quality continued**D3.3 – Financial investments continued****D3.3.6 – Non UK Government debt securities (gross of non-controlling interests)**

	Policyholder		Participating		Shareholder		Total	
	30 June 2013 £m	Restated 31 December 2012 £m	30 June 2013 £m	Restated 31 December 2012 £m	30 June 2013 £m	Restated 31 December 2012 £m	30 June 2013 £m	Restated 31 December 2012 £m
Non UK Government Debt Securities								
Austria	10	14	705	634	161	123	876	771
Belgium	31	45	1,441	1,343	287	172	1,759	1,560
France	137	191	10,312	9,076	1,657	1,944	12,106	11,211
Germany	140	220	2,163	2,394	748	957	3,051	3,571
Greece	1	—	3	—	—	—	4	—
Ireland	28	35	363	363	—	26	391	424
Italy	251	265	8,615	8,521	575	617	9,441	9,403
Netherlands	56	69	1,262	1,200	309	228	1,627	1,497
Poland	627	673	923	1,014	419	445	1,969	2,132
Portugal	1	—	242	257	—	—	243	257
Spain	41	37	1,174	1,319	908	854	2,123	2,210
European Supranational debt	100	136	2,641	2,928	1,419	1,470	4,160	4,534
Other European countries	326	244	822	651	618	421	1,766	1,316
Europe	1,749	1,929	30,666	29,700	7,101	7,257	39,516	38,886
Canada	13	19	190	196	2,445	2,517	2,648	2,732
United States	140	139	58	56	1,760	1,665	1,958	1,860
North America	153	158	248	252	4,205	4,182	4,606	4,592
Singapore	9	7	401	453	279	276	689	736
Sri Lanka	3	1	4	3	—	—	7	4
Other	707	637	1,622	1,315	428	393	2,757	2,345
Asia Pacific and other	719	645	2,027	1,771	707	669	3,453	3,085
Total	2,621	2,732	32,941	31,723	12,013	12,108	47,575	46,563
Assets of operations classified as held for sale	7	197	1,684	556	2,169	2,274	3,860	3,027
Total (excluding assets held for sale)	2,614	2,535	31,257	31,167	9,844	9,834	43,715	43,536

At 30 June 2013, the Group's total government (non-UK) debt securities stood at £47.6 billion (*FY12: £46.6 billion*), an increase of £1.0 billion. The significant majority of these holdings are within our participating funds where the risk to our shareholders is governed by the nature and extent of our participation within those funds.

Our direct shareholder asset exposure to government (non-UK) debt securities amounts to £12.0 billion (*FY12: £12.1 billion*). The primary exposures, relative to total shareholder (non-UK) government debt exposure, are to French (13.8%), German (6.2%), Spanish (7.6%) and Italian (4.8%) government debt securities.

The participating funds exposure to (non-UK) government debt amounts to £32.9 billion (*FY12: £31.7 billion*), an increase of £1.2 billion. The primary exposures, relative to total (non-UK) government debt exposures included within our participating funds, are to the (non-UK) government debt securities of France (31.3%), Italy (26.2%), Germany (6.6%), Belgium (4.4%), Spain (3.6%), Netherlands (3.8%) and Poland (2.8%).

D3 – Analysis of asset quality continued**D3.3 – Financial investments continued****D3.3.7 – Exposure to worldwide bank debt securities**

Direct shareholder and participating fund assets exposures to worldwide bank debt securities (net of non-controlling interests, excluding policyholder assets)

	Shareholder assets			Participating fund assets		
	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn
30 June 2013						
Austria	—	—	—	0.2	—	0.2
France	0.2	—	0.2	3.7	0.9	4.6
Germany	—	0.1	0.1	0.5	0.7	1.2
Ireland	—	0.1	0.1	—	—	—
Italy	—	0.1	0.1	0.3	—	0.3
Netherlands	0.4	0.2	0.6	1.9	0.2	2.1
Portugal	—	—	—	—	—	—
Spain	0.7	0.1	0.8	0.9	0.1	1.0
United Kingdom	0.6	0.4	1.0	0.8	1.0	1.8
United States	1.4	0.9	2.3	1.0	0.1	1.1
Other	0.6	0.5	1.1	2.0	0.9	2.9
Total	3.9	2.4	6.3	11.3	3.9	15.2
Assets of operations classified as held for sale	1.2	1.0	2.2	—	—	—
Total (excluding assets held for sale)	2.7	1.4	4.1	11.3	3.9	15.2
FY12 Total	4.2	2.3	6.5	11.7	3.9	15.6

Net of non-controlling interests, our direct shareholder assets exposure to worldwide bank debt securities is £6.3 billion. The majority of our holding (61.9%) is in senior debt. The primary exposures are to US (36.5%) and UK (15.9%) banks.

Net of non-controlling interests, the participating fund exposures to worldwide bank debt securities, where the risk to our shareholders is governed by the nature and extent of our participation within those funds, is £15.2 billion. The majority of the exposure (74.3%) is in senior debt. Participating funds are the most exposed to French (30.3%), Dutch (13.8%) and UK (11.8%) banks.

Direct shareholder and participating fund assets exposures to worldwide bank debt securities (gross of non-controlling interests, excluding policyholder assets)

	Shareholder assets			Participating fund assets		
	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn
30 June 2013						
Austria	—	—	—	0.2	—	0.2
France	0.2	—	0.2	4.1	1.0	5.1
Germany	—	0.1	0.1	0.6	0.7	1.3
Ireland	—	0.1	0.1	—	—	—
Italy	0.1	0.1	0.2	0.7	0.1	0.8
Netherlands	0.4	0.2	0.6	2.0	0.3	2.3
Portugal	—	—	—	—	—	—
Spain	1.0	0.1	1.1	1.2	0.1	1.3
United Kingdom	0.6	0.4	1.0	0.9	1.1	2.0
United States	1.4	0.9	2.3	2.3	0.1	2.4
Other	0.6	0.5	1.1	2.5	0.9	3.4
Total	4.3	2.4	6.7	14.5	4.3	18.8
Assets of operations classified as held for sale	1.2	1.0	2.2	—	—	—
Total (excluding assets held for sale)	3.1	1.4	4.5	14.5	4.3	18.8
FY12 Total	4.9	2.4	7.3	13.3	4.4	17.7

Gross of non-controlling interests, our direct shareholder assets exposure to worldwide bank debt securities is £6.7 billion. The majority of our holding (64.2%) is in senior debt. The primary exposures are to US (34.3%), Spanish (16.4%) and UK (14.9%) banks.

Gross of non-controlling interests, the participating fund exposures to worldwide bank debt securities, where the risk to our shareholders is governed by the nature and extent of our participation within those funds, is £18.8 billion. The majority of the exposure (77.1%) is in senior debt. Participating funds are the most exposed to French (27.1%), US (12.8%), Dutch (12.2%) and UK (10.6%) banks.

D4 – Pension fund assets

In addition to the assets recognised directly on the Group's statement of financial position outlined in the disclosures above, the Group is also exposed to the "Plan assets" that are shown net of the present value of scheme liabilities within the IAS 19 net pension surplus. Pension surpluses are included within other assets and pension deficits are recognised within provisions in the Group's consolidated statement of financial position.

Plan assets comprise

	30 June 2013				31 December 2012			
	United Kingdom £m	Ireland £m	Canada £m	Total £m	United Kingdom £m	Ireland £m	Canada £m	Total £m
Equities	920	96	80	1,096	909	87	92	1,088
Bonds	8,961	259	142	9,362	8,867	260	121	9,248
Property	996	13	—	1,009	914	12	—	926
Other	839	54	24	917	957	47	15	1,019
Total	11,716	422	246	12,384	11,647	406	228	12,281

Risk management and asset allocation strategy

The long-term investment objectives of the trustees and the employers are to limit the risk of the assets failing to meet the liabilities of the schemes over the long term, and to maximise returns consistent with an acceptable level of risk so as to control the long-term costs of these schemes. To meet these objectives, each scheme's assets are invested in a diversified portfolio, consisting primarily of debt securities, equity securities and property.

Main UK Scheme

Both the Group and the trustees regularly review the asset/liability management of the main UK scheme. It is fully understood that, whilst the current asset mix is designed to produce appropriate long-term returns, this introduces a material risk of volatility in the scheme's surplus or deficit of assets compared with its liabilities.

The principal risks to which the scheme assets are exposed are interest rate, inflation and equity markets. These are actively mitigated, for example, by using inflation and interest rate swaps. Additionally, the exposure to equities has been reduced over time. There is also an exposure to currency risk where assets are not denominated in the same currency as the liabilities. The majority of this exposure has been removed by the use of hedging instruments.

Other schemes

The other schemes are considerably less material but their risks are managed in a similar way to those in the main UK scheme.

Refer to Note B15 for details on the movements in the main schemes' surpluses and deficits.

D5 – Available funds

To ensure access to liquidity as and when needed, the Group maintains £1.5 billion of undrawn committed central borrowing facilities with various highly rated banks, £0.75 billion of which is allocated to support the credit ratings of Aviva plc's commercial paper programmes. The expiry profile of the undrawn committed central borrowing facilities is as follows:

30 June 2013	£m
Expiring within one year	300
Expiring beyond one year	1,200
Total	1,500

D6 – Guarantees

As a normal part of their operating activities, various Group companies have given guarantees and options, including investment return guarantees, in respect of certain long-term insurance and fund management products.

For the UK Life with-profit business, provisions in respect of these guarantees and options are calculated on a market consistent basis, in which stochastic models are used to evaluate the level of risk (and additional cost) under a number of economic scenarios, which allow for the impact of volatility in both interest rates and equity prices. For UK Life non-profit business, provisions do not materially differ from those determined on a market consistent basis.

In all other businesses, provisions for guarantees and options are calculated on a local basis with sensitivity analysis undertaken where appropriate to assess the impact on provisioning levels of a movement in interest rates and equity levels (typically a 1% decrease in interest rates and 10% decline in equity markets).

VNB & Sales analysis

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VNB and Sales analysis

E1 – Trend analysis of VNB (continuing operations¹) – cumulative

	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	Growth on 2Q12 YTD	
							Sterling %	Local currency %
Gross of tax and non-controlling interests								
United Kingdom	81	182	288	420	108	211	16%	16%
Ireland	(2)	(6)	(11)	(8)	(1)	1	117%	117%
United Kingdom & Ireland	79	176	277	412	107	212	20%	20%
France	35	62	84	119	39	86	39%	34%
Poland	10	18	23	35	10	21	17%	10%
Italy	9	14	19	29	4	6	(57)%	(59)%
Spain	14	21	32	56	5	13	(38)%	(40)%
Turkey	6	13	20	30	10	20	54%	53%
Other Europe	—	2	2	2	1	1	(50)%	(47)%
Europe	74	130	180	271	69	147	13%	9%
Asia – excluding Malaysia and Sri Lanka	14	29	46	55	19	41	41%	37%
Value of new business – pro forma basis	167	335	503	738	195	400	19%	18%
Effect of disposals (Malaysia and Sri Lanka)	2	8	8	8	1	1	(88)%	(88)%
Total	169	343	511	746	196	401	17%	15%

¹ Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

E2 – Trend analysis of VNB (continuing operations¹) – discrete

	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	Growth on 1Q13	
							Sterling %	Local currency %
Gross of tax and non-controlling interests								
United Kingdom	81	101	106	132	108	103	(5)%	(5)%
Ireland	(2)	(4)	(5)	3	(1)	2	300%	300%
United Kingdom & Ireland	79	97	101	135	107	105	(2)%	(2)%
France	35	27	22	35	39	47	21%	21%
Poland	10	8	5	12	10	11	10%	10%
Italy	9	5	5	10	4	2	(50)%	(50)%
Spain	14	7	11	24	5	8	60%	60%
Turkey	6	7	7	10	10	10	—	1%
Other Europe	—	2	—	—	1	—	(100)%	(100)%
Europe	74	56	50	91	69	78	13%	13%
Asia – excluding Malaysia and Sri Lanka	14	15	17	9	19	22	16%	15%
Value of new business – pro forma basis	167	168	168	235	195	205	5%	5%
Effect of disposals (Malaysia and Sri Lanka)	2	6	—	—	1	—	(100)%	(100)%
Total	169	174	168	235	196	205	5%	5%

¹ Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

E3 – Trend analysis of PVNBP (continuing operations¹) – cumulative

	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	Growth on 2Q12 YTD	
							Sterling %	Local currency %
Present value of new business premiums²								
Life and pensions business								
United Kingdom	2,430	5,387	8,002	10,410	2,336	4,441	(18)%	(18)%
Ireland	199	342	469	632	117	225	(34)%	(36)%
United Kingdom & Ireland	2,629	5,729	8,471	11,042	2,453	4,666	(19)%	(19)%
France	1,092	1,944	2,671	3,638	1,245	2,373	22%	18%
Poland	107	201	274	373	123	227	13%	7%
Italy	673	1,259	1,603	1,971	614	1,305	4%	—
Spain	402	705	934	1,295	375	641	(9)%	(12)%
Turkey	68	141	212	312	135	253	79%	77%
Other Europe	56	108	132	158	20	20	(81)%	(82)%
Europe	2,398	4,358	5,826	7,747	2,512	4,819	11%	7%
Asia	442	913	1,367	1,765	488	861	(6)%	(8)%
Other business ³	13	30	79	92	4	7	(77)%	(77)%
Total life and pensions	5,482	11,030	15,743	20,646	5,457	10,353	(6)%	(8)%
Investment sales⁴	949	1,934	3,400	4,586	1,134	2,498	29%	27%
Total long-term savings sales	6,431	12,964	19,143	25,232	6,591	12,851	(1)%	(3)%

1 Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

2 Present value of new business premiums (PVNBP) is the present value of new regular premiums plus 100% of single premiums, calculated using assumptions consistent with those used to determine the value of new business.

3 Other business represents the results of Aviva Investors Pooled Pensions, Russia up to the date of disposal in April 2013 and the Czech Republic, Hungary and Romania Life up to the date of disposal in July 2012.

4 Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E4 – Trend analysis of PVNBP (continuing operations¹) – discrete

	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	Growth on 1Q13	
							Sterling %	Local currency %
Present value of new business premiums²								
Life and pensions business								
United Kingdom	2,430	2,957	2,615	2,408	2,336	2,105	(10)%	(10)%
Ireland	199	143	127	163	117	108	(8)%	(8)%
United Kingdom & Ireland	2,629	3,100	2,742	2,571	2,453	2,213	(10)%	(10)%
France	1,092	852	727	967	1,245	1,128	(9)%	(9)%
Poland	107	94	73	99	123	104	(15)%	(15)%
Italy	673	586	344	368	614	691	13%	13%
Spain	402	303	229	361	375	266	(29)%	(29)%
Turkey	68	73	71	100	135	118	(13)%	(12)%
Other Europe	56	52	24	26	20	—	(100)%	(100)%
Europe	2,398	1,960	1,468	1,921	2,512	2,307	(8)%	(8)%
Asia	442	471	454	398	488	373	(24)%	(24)%
Other business ³	13	17	49	13	4	3	(25)%	(25)%
Total life and pensions	5,482	5,548	4,713	4,903	5,457	4,896	(10)%	(10)%
Investment sales⁴	949	985	1,466	1,186	1,134	1,364	20%	20%
Total long-term savings sales	6,431	6,533	6,179	6,089	6,591	6,260	(5)%	(5)%

1 Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

2 Present value of new business premiums (PVNBP) is the present value of new regular premiums plus 100% of single premiums, calculated using assumptions consistent with those used to determine the value of new business.

3 Other business represents the results of Aviva Investors Pooled Pensions, Russia up to the date of disposal in April 2013 and the Czech Republic, Hungary and Romania Life up to the date of disposal in July 2012.

4 Investment sales are calculated as new single premium plus the annualised value of new regular premiums.

E5 – Trend analysis of PVNBP by product (continuing operations¹) – cumulative

							Growth on 2Q12 YTD	
	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	Sterling %	Local currency %
Present value of new business premiums ²								
Life and pensions business								
Pensions	1,251	2,762	3,963	5,158	1,322	2,479	(10)%	(10)%
Annuities	662	1,555	2,459	3,211	630	1,217	(22)%	(22)%
Bonds	128	253	322	379	33	59	(77)%	(77)%
Protection	300	608	920	1,228	253	504	(17)%	(17)%
Equity release	89	209	338	434	98	182	(13)%	(13)%
United Kingdom	2,430	5,387	8,002	10,410	2,336	4,441	(18)%	(18)%
Ireland	199	342	469	632	117	225	(34)%	(36)%
United Kingdom & Ireland	2,629	5,729	8,471	11,042	2,453	4,666	(19)%	(19)%
Savings	1,038	1,842	2,541	3,462	1,169	2,235	21%	17%
Protection	54	102	130	176	76	138	35%	31%
France	1,092	1,944	2,671	3,638	1,245	2,373	22%	18%
Pensions	180	311	430	672	246	409	32%	28%
Savings	994	1,836	2,337	2,888	882	1,770	(4)%	(7)%
Annuities	11	18	25	39	11	17	(6)%	(9)%
Protection	121	249	363	510	128	250	—	(3)%
Poland, Italy, Spain and Other	1,306	2,414	3,155	4,109	1,267	2,446	1%	(2)%
Europe	2,398	4,358	5,826	7,747	2,512	4,819	11%	7%
Asia	442	913	1,367	1,765	488	861	(6)%	(8)%
Other business ³	13	30	79	92	4	7	(77)%	(77)%
Total life and pensions sales	5,482	11,030	15,743	20,646	5,457	10,353	(6)%	(8)%

¹ Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

² Present value of new business premiums (PVNBP) is the present value of new regular premiums plus 100% of single premiums, calculated using assumptions consistent with those used to determine the value of new business.

³ Other business represents the results of Aviva Investors Pooled Pensions, Russia up to the date of disposal in April 2013 and the Czech Republic, Hungary and Romania Life up to the date of disposal in July 2012.

E6 – Trend analysis of PVNBP by product (continuing operations¹) – discrete

	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	Growth on 1Q13	
							Sterling %	Local currency %
Present value of new business premiums ²								
Life and pensions business								
Pensions	1,251	1,511	1,201	1,195	1,322	1,157	(12)%	(12)%
Annuities	662	893	904	752	630	587	(7)%	(7)%
Bonds	128	125	69	57	33	26	(21)%	(21)%
Protection	300	308	312	308	253	251	(1)%	(1)%
Equity release	89	120	129	96	98	84	(14)%	(14)%
United Kingdom	2,430	2,957	2,615	2,408	2,336	2,105	(10)%	(10)%
Ireland	199	143	127	163	117	108	(8)%	(8)%
United Kingdom & Ireland	2,629	3,100	2,742	2,571	2,453	2,213	(10)%	(10)%
Savings	1,038	804	699	921	1,169	1,066	(9)%	(9)%
Protection	54	48	28	46	76	62	(18)%	(18)%
France	1,092	852	727	967	1,245	1,128	(9)%	(9)%
Pensions	180	131	119	242	246	163	(34)%	(33)%
Savings	994	842	501	551	882	888	1%	1%
Annuities	11	7	7	14	11	6	(45)%	(45)%
Protection	121	128	114	147	128	122	(5)%	(4)%
Poland, Italy, Spain and Other	1,306	1,108	741	954	1,267	1,179	(7)%	(7)%
Europe	2,398	1,960	1,468	1,921	2,512	2,307	(8)%	(8)%
Asia	442	471	454	398	488	373	(24)%	(24)%
Other business ³	13	17	49	13	4	3	(25)%	(25)%
Total life and pensions sales	5,482	5,548	4,713	4,903	5,457	4,896	(10)%	(10)%

¹ Following the announced disposal of US Life, it is no longer being managed on a MCEV basis and it is no longer included in covered business.

² Present value of new business premiums (PVNBP) is the present value of new regular premiums plus 100% of single premiums, calculated using assumptions consistent with those used to determine the value of new business.

³ Other business represents the results of Aviva Investors Pooled Pensions, Russia up to the date of disposal in April 2013 and the Czech Republic, Hungary and Romania Life up to the date of disposal in July 2012.

E7 – Trend analysis of Investment sales (continuing operations¹) – cumulative

	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	Growth on 2Q12 YTD	
							Sterling %	Local Currency %
Investment Sales								
United Kingdom & Ireland	432	823	1,269	1,730	305	841	2%	2%
Aviva Investors	479	1,043	2,038	2,727	787	1,563	50%	45%
Asia	38	68	93	129	42	94	38%	34%
Total investment sales	949	1,934	3,400	4,586	1,134	2,498	29%	27%

¹ Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E8 – Trend analysis of Investment sales (continuing operations¹) – discrete

	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	Growth on 1Q13	
							Sterling %	Local Currency %
Investment Sales								
United Kingdom & Ireland	432	391	446	461	305	536	76%	76%
Aviva Investors	479	564	995	689	787	776	(1)%	(1)%
Asia	38	30	25	36	42	52	24%	24%
Total investment sales	949	985	1,466	1,186	1,134	1,364	20%	20%

¹ Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E9 – Trend analysis of general insurance and health net written premiums – cumulative

	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	Growth on 2Q12 YTD	
							Sterling %	Local currency %
General insurance								
United Kingdom	974	2,087	3,091	4,062	923	1,963	(6)%	(6)%
Ireland	82	174	252	326	71	146	(16)%	(19)%
United Kingdom & Ireland	1,056	2,261	3,343	4,388	994	2,109	(7)%	(7)%
Europe	410	726	982	1,295	435	764	5%	2%
Canada	454	1,081	1,635	2,176	470	1,126	4%	3%
Asia	6	11	17	22	3	7	(36)%	(38)%
Other	40	51	53	67	20	20	(61)%	(61)%
	1,966	4,130	6,030	7,948	1,922	4,026	(3)%	(4)%
Health insurance								
United Kingdom	120	255	389	528	138	289	13%	13%
Ireland	40	57	76	102	36	52	(9)%	(12)%
United Kingdom & Ireland	160	312	465	630	174	341	9%	9%
Europe	83	123	161	218	89	135	10%	6%
Asia	27	50	79	98	35	47	(6)%	(7)%
	270	485	705	946	298	523	8%	6%
Total	2,236	4,615	6,735	8,894	2,220	4,549	(1)%	(3)%

E10 – Trend analysis of general insurance and health net written premiums – discrete

	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	Growth on 1Q13	
							Sterling %	Local currency %
General insurance								
United Kingdom	974	1,113	1,004	971	923	1,040	13%	13%
Ireland	82	92	78	74	71	75	6%	6%
United Kingdom & Ireland	1,056	1,205	1,082	1,045	994	1,115	12%	12%
Europe	410	316	256	313	435	329	(24)%	(24)%
Canada	454	627	554	541	470	656	40%	40%
Asia	6	5	6	5	3	4	33%	33%
Other	40	11	2	14	20	—	(100)%	(100)%
	1,966	2,164	1,900	1,918	1,922	2,104	9%	9%
Health insurance								
United Kingdom	120	135	134	139	138	151	9%	9%
Ireland	40	17	19	26	36	16	(56)%	(56)%
United Kingdom & Ireland	160	152	153	165	174	167	(4)%	(4)%
Europe	83	40	38	57	89	46	(48)%	(48)%
Asia	27	23	29	19	35	12	(66)%	(66)%
	270	215	220	241	298	225	(24)%	(24)%
Total	2,236	2,379	2,120	2,159	2,220	2,329	5%	5%

MCEV financial statements

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MCEV financial statements

Consolidated income statement – MCEV basis

For the six month period ended 30 June 2013

	Reviewed 6 months 2013 £m			Restated ¹ Reviewed 6 months 2012 £m			Restated ¹ Audited Full Year 2012 £m		
	Continuing Operations	Discontinued Operations	Total	Continuing Operations	Discontinued Operations	Total	Continuing Operations	Discontinued Operations	Total
Operating profit/(loss) before tax attributable to shareholders' profits									
United Kingdom & Ireland	443	—	443	471	—	471	923	—	923
Europe	689	—	689	613	—	613	1,171	—	1,171
Asia	69	—	69	56	—	56	107	—	107
Other	—	—	—	7	—	7	5	—	5
United States ²	—	—	—	—	81	81	—	(378)	(378)
Long-term business for continuing operations	1,201	—	1,201	1,147	81	1,228	2,206	(378)	1,828
United States ²	—	111	111	—	—	—	—	—	—
General insurance and health	428	—	428	462	—	462	894	—	894
Fund management ³	25	22	47	6	1	7	24	4	28
Other operations ⁴	(44)	(2)	(46)	(81)	(2)	(83)	(170)	(4)	(174)
Market operating profit/(loss)	1,610	131	1,741	1,534	80	1,614	2,954	(378)	2,576
Corporate centre	(72)	—	(72)	(64)	—	(64)	(136)	—	(136)
Group debt costs and other interest	(251)	(6)	(257)	(267)	(7)	(274)	(537)	(12)	(549)
Operating profit/(loss) before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	1,287	125	1,412	1,203	73	1,276	2,281	(390)	1,891
Share of operating profit (before tax) of Delta Lloyd as an associate	—	—	—	112	—	112	112	—	112
Operating profit/(loss) before tax attributable to shareholders' profits	1,287	125	1,412	1,315	73	1,388	2,393	(390)	2,003
Integration and restructuring costs	(163)	(2)	(165)	(185)	(3)	(188)	(464)	(3)	(467)
Operating profit/(loss) before tax attributable to shareholders' profits after integration and restructuring costs	1,124	123	1,247	1,130	70	1,200	1,929	(393)	1,536
Adjusted for the following:									
Economic variances on long-term business	555	279	834	1,022	151	1,173	1,901	(6)	1,895
Short-term fluctuation in return on investments on non-long-term business	(306)	—	(306)	31	—	31	7	—	7
Economic assumption changes on general insurance and health business	27	—	27	(18)	—	(18)	(21)	—	(21)
Impairment of goodwill	(86)	—	(86)	184	(787)	(603)	(154)	(782)	(936)
Amortisation and impairment of intangibles	(46)	(6)	(52)	(36)	(98)	(134)	(110)	(97)	(207)
Profit on the disposal and remeasurement of subsidiaries and associates ⁵	187	91	278	(30)	—	(30)	(1)	1,095	1,094
Exceptional items	—	—	—	—	—	—	51	—	51
Non-operating items before tax (excluding Delta Lloyd as an associate)	331	364	695	1,153	(734)	419	1,673	210	1,883
Share of Delta Lloyd's non-operating items (before tax) as an associate	—	—	—	(523)	—	(523)	(523)	—	(523)
Non-operating items before tax	331	364	695	630	(734)	(104)	1,150	210	1,360
Share of Delta Lloyd's tax expense, as an associate	—	—	—	107	—	107	107	—	107
Profit/(loss) before tax attributable to shareholders' profits	1,455	487	1,942	1,867	(664)	1,203	3,186	(183)	3,003
Tax on operating profit	(412)	(23)	(435)	(406)	(25)	(431)	(780)	134	(646)
Tax on other activities	(53)	(94)	(147)	(314)	(21)	(335)	(516)	34	(482)
	(465)	(117)	(582)	(720)	(46)	(766)	(1,296)	168	(1,128)
Profit/(loss) for the period	990	370	1,360	1,147	(710)	437	1,890	(15)	1,875
Attributable to:									
Equity shareholders' of Aviva plc	708	370	1,078	725	(710)	15	1,035	(15)	1,020
Non-controlling Interest	282	—	282	422	—	422	855	—	855
	990	370	1,360	1,147	(710)	437	1,890	(15)	1,875

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.² From 1 January 2013 the held for sale US life operations are reported within non-covered business on an IFRS basis as set out in F1 Basis of Preparation. In the half year 2012 and full year 2012 comparatives the US life operations are within covered business on an MCEV basis and then remeasured at FY12 to fair value less cost to sell.³ Excludes the proportion of the results of Aviva Investors fund management businesses and other fund management operations within the Group that arises from the provision of fund management services to our life businesses. In the comparatives US operations exclude results for fund management services related to life business. These results, for continuing operations, are included within the life MCEV operating earnings consistent with the MCEV methodology.⁴ Excludes the proportion of the results of subsidiaries providing services to the Life business. These results are included within the life MCEV operating earnings consistent with the MCEV methodology.⁵ Includes profit in respect of remeasurement of held for sale operations to expected fair value less cost to sell, in particular for the US business. In addition this includes profit or loss on completion of the sales of Aseval, Ark Life, Russia, Romania pensions and Malaysia.

Earnings per share – MCEV basis

	Reviewed 6 months 2013			Restated ¹ Reviewed 6 months 2012			Restated ² Audited Full Year 2012		
	Continuing Operations	Discontinued ¹ Operations	Total	Continuing Operations	Discontinued Operations	Total	Continuing Operations	Discontinued Operations	Total
Operating earnings/(losses) per share on an MCEV basis after tax, attributable to ordinary shareholders of Aviva plc									
Basic (pence per share)	24.2p	3.5p	27.7p	25.0p	1.6p	26.6p	40.4p	(8.8)p	31.6p
Diluted ³ (pence per share)	23.9p	3.4p	27.3p	24.7p	1.6p	26.3p	39.8p	(8.8)p	31.2p
Earnings/(losses) after tax on an MCEV basis, attributable to ordinary shareholders of Aviva plc									
Basic (pence per share)	23.3p	12.6p	35.9p	24.7p	(24.5)p	0.2p	33.1p	(0.5)p	32.6p
Diluted ³ (pence per share)	23.0p	12.4p	35.4p	24.3p	(24.5)p	0.2p	32.6p	(0.5)p	32.1p

¹ Discontinued operations represents the results of the US life and related internal asset management business (US Life).

² The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

³ Losses have an anti-dilutive effect. Therefore the basic and diluted earnings for discontinued operations in 2012 have remained the same.

Consolidated statement of comprehensive income – MCEV basis

For the six month period ended 30 June 2013

	Reviewed 6 months 2013 £m	Restated ¹ Reviewed 6 months 2012 £m	Restated ¹ Audited Full Year 2012 £m
Profit for the period from continuing operations	990	1,147	1,890
Profit/(loss) for the period from discontinued operations	370	(710)	(15)
Total profit for the period	1,360	437	1,875
Other comprehensive income from continuing operations:			
<i>Items that may be reclassified subsequently to income statement</i>			
Share of other comprehensive income of joint ventures and associates	—	(7)	(7)
Foreign exchange rate movements	469	(194)	(145)
Aggregate tax effect – shareholder tax on items that may be reclassified	(20)	10	17
<i>Items that will not be reclassified to income statement</i>			
Remeasurement of pension schemes	(294)	49	(980)
Aggregate tax effect – shareholders tax on items that will not be reclassified	65	(34)	189
Other comprehensive income, net of tax from continuing operations	220	(176)	(926)
Other comprehensive income, net of tax from discontinued operations	(206)	(8)	(14)
Total other comprehensive income net of tax	14	(184)	(940)
Total comprehensive income for the period from continuing operations	1,210	971	964
Total comprehensive income for the period from discontinued operations	164	(718)	(29)
Total comprehensive income for the period	1,374	253	935
Attributable to:			
Equity shareholders of Aviva plc	1,000	(134)	102
Non-controlling Interests	374	387	833
	1,374	253	935

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

Consolidated statement of changes in equity – MCEV basis

For the six month period ended 30 June 2013

	Reviewed 6 months 2013 £m	Reviewed 6 months 2012 £m	Audited Full Year 2012 £m
Balance at 1 January	16,230	15,495	15,495
Total comprehensive income for the period	1,374	253	935
Dividends and appropriations	(290)	(474)	(847)
Shares issued in lieu of dividends	—	38	127
Capital contributions from non-controlling interests	—	6	20
Share of dividends declared in the period applicable to non-controlling interests	(75)	(66)	(102)
Issue of fixed rate tier 1 notes	—	392	392
Transfer to (loss)/profit on disposal of subsidiaries, joint ventures and associates	(175)	—	187
Non-controlling interest in (disposed)/acquired subsidiaries	(491)	5	(13)
Shares acquired by employee trusts	—	(3)	(33)
Shares distributed by employee trusts	3	—	8
Reserves credit for equity compensation plans	23	23	42
Shares issued under equity compensation plans	—	—	1
Aggregate tax effect – shareholder tax	4	—	18
Total equity	16,603	15,669	16,230
Non-controlling interests	(2,022)	(1,808)	(2,214)
Balance at 30 June/31 December	14,581	13,861	14,016

Consolidated statement of financial position – MCEV basis

As at 30 June 2013

	Reviewed 30 June 2013 £m	Restated ¹ Reviewed 30 June 2012 £m	Restated ¹ Audited 31 December 2012 £m
Assets			
Goodwill	1,504	1,794	1,520
Acquired value of in-force business and other intangibles	1,095	1,649	1,084
Additional value of in-force long-term business ²	5,239	1,064	4,870
Interest in, and loans to, joint ventures	1,237	1,602	1,390
Interest in, and loans to, associates	265	1,005	265
Property and equipment	395	445	391
Investment property	9,832	10,301	9,939
Loans	24,225	26,918	24,537
Financial investments	192,670	213,547	189,019
Reinsurance assets	6,907	7,239	6,684
Deferred tax assets	234	262	188
Current tax assets	89	74	67
Receivables	7,981	8,342	7,476
Deferred acquisition costs and other assets	3,417	6,431	3,778
Prepayments and accrued income	2,704	3,175	2,700
Cash and cash equivalents	25,075	24,024	23,102
Assets of operations classified as held for sale	41,712	3,962	42,603
Total assets	324,581	311,834	319,613
Equity			
Ordinary share capital	736	729	736
Capital reserves	4,436	4,441	4,436
Other reserves ²	1,437	1,066	1,171
Shares held by employee trusts	(9)	(14)	(32)
Retained earnings	1,581	4,854	1,389
Additional retained earnings on an MCEV basis ²	4,818	1,203	4,734
Equity attributable to ordinary shareholders of Aviva plc	12,999	12,279	12,434
Preference share capital, direct capital instruments and fixed rate tier 1 notes	1,582	1,582	1,582
Non-controlling interests ²	2,022	1,808	2,214
Total equity	16,603	15,669	16,230
Liabilities			
Gross insurance liabilities	113,060	145,488	113,091
Gross liabilities for investment contracts	113,285	109,901	110,494
Unallocated divisible surplus	6,569	3,162	6,931
Net asset value attributable to unitholders	12,340	9,274	10,259
Provisions	1,079	1,097	1,119
Deferred tax liabilities	551	1,324	547
Current tax liabilities	130	200	112
External borrowings	8,254	8,112	8,179
Payables and other financial liabilities	9,764	11,045	9,398
Other liabilities	1,826	2,927	1,842
Liabilities of operations classified as held for sale	41,120	3,635	41,411
Total liabilities	307,978	296,165	303,383
Total equity and liabilities	324,581	311,834	319,613

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

² The summarised consolidated statement of financial position presented above is unaltered from the corresponding IFRS summarised consolidated statement of financial position with the exception of the following:
Adding the excess of the Life MCEV, including non-controlling interests, over the corresponding Life IFRS net assets is represented as the additional value of in-force long-term business; the corresponding items within equity are represented by the additional retained profit on an MCEV basis; other reserves and corresponding adjustments to non-controlling interests. Note that the presentation of equity in the 'Consolidated statement of financial position – MCEV basis' is in a different format to the 'Consolidated statement of financial position – IFRS basis'.

Reconciliation of shareholders' equity on IFRS and MCEV bases

As at 30 June 2013

Reviewed 30 June 2013	IFRS £m	Adjustment £m	MCEV £m
Ordinary share capital	736	—	736
Capital reserves	4,436	—	4,436
Other reserves	1,532	(95)	1,437
Shares held by employee trusts	(9)	—	(9)
Retained earnings	1,581	—	1,581
Additional retained earnings on an MCEV basis	—	4,818	4,818
Equity attributable to ordinary shareholders of Aviva plc	8,276	4,723	12,999
Preference share capital	200	—	200
Direct capital instruments and fixed rate tier 1 notes	1,382	—	1,382
Non-controlling Interests	1,506	516	2,022
Total equity	11,364	5,239	16,603

Reviewed 30 June 2012	IFRS £m	Adjustment £m	MCEV £m
Ordinary share capital	729	—	729
Capital reserves	4,441	—	4,441
Other reserves	1,514	(448)	1,066
Shares held by employee trusts	(14)	—	(14)
Retained earnings	4,854	—	4,854
Additional retained earnings on an MCEV basis	—	1,203	1,203
Equity attributable to ordinary shareholders of Aviva plc	11,524	755	12,279
Preference share capital	200	—	200
Direct capital instruments and fixed rate tier 1 notes	1,382	—	1,382
Non-controlling Interests	1,499	309	1,808
Total equity	14,605	1,064	15,669

Audited 31 December 2012	IFRS £m	Adjustment £m	MCEV £m
Ordinary share capital	736	—	736
Capital reserves	4,436	—	4,436
Other reserves	1,675	(504)	1,171
Shares held by employee trusts	(32)	—	(32)
Retained earnings	1,389	—	1,389
Additional retained earnings on an MCEV basis	—	4,734	4,734
Equity attributable to ordinary shareholders of Aviva plc	8,204	4,230	12,434
Preference share capital	200	—	200
Direct capital instruments and fixed rate tier 1 notes	1,382	—	1,382
Non-controlling Interests	1,574	640	2,214
Total equity	11,360	4,870	16,230

Reconciliation of IFRS total equity to MCEV net worth

As at 30 June 2013

	Reviewed 30 June 2013 £m	Reviewed 30 June 2012 £m	Audited 31 December 2012 £m
Net assets on a statutory IFRS net basis	11,364	14,605	11,360
Adjusting for general business and other net assets on a statutory IFRS net basis	789	291	1,602
Life and related businesses net assets on a statutory IFRS net basis	12,153	14,896	12,962
Adjustment for Life net assets on an IFRS basis ¹	(1,288)	—	—
Goodwill and other intangibles	(744)	(1,234)	(989)
Acquired value of in-force business	(155)	(830)	(245)
Adjustment for share of joint ventures and associates	(7)	(11)	(9)
Adjustment for assets to regulatory value net of tax	125	(2,238)	94
Adjustment for DAC and DIR net of tax	(1,048)	(2,499)	(1,134)
Adjustment for differences in technical provisions	(694)	3,065	(488)
Other accounting and tax differences	439	(827)	940
MCEV net worth	8,781	10,322	11,131
MCEV value of in-force ²	6,434	3,732	5,366
MCEV³	15,215	14,054	16,497

¹ Represents held for sale US life operations which from 1 January 2013 are not included in MCEV covered business as set out in F1 Basis of Preparation.

² Comprises PVFP of £9,030 million (30 June 2012: £6,721 million; 31 December 2012: £8,616 million), FC of £(471) million (30 June 2012: £(579) million; 31 December 2012: £(569) million), CNHR of £(1,162) million (30 June 2012: £(1,063) million; 31 December 2012: £(1,381) million), and TVOG of £(963) million (30 June 2012: £(1,347) million; 31 December 2012: £(1,300) million).

³ Comprises embedded value of £13,869 million (30 June 2012: 12,902 million; 31 December 2012: £14,941 million) and non-controlling interest in long-term business assets of £1,346 million (30 June 2012: £1,152 million; 31 December 2012: £1,556 million).

Differences between the reconciling items for 30 June 2013, 31 December 2012 and 30 June 2012 arise mainly from different treatment of the United States business. For 30 June 2013, the Adjustment for Life net assets on an IFRS basis relates to US operations, which are included on an IFRS basis within non-covered but related to life business. The IFRS net assets are included at the expected fair value less costs to sell, including the effect of re-measurement at 30 June 2013 and the impact of foreign exchange movement during the period. For 31 December 2012, IFRS net assets included the expected fair value less costs to sell for the US and the total difference from the amount included for the US in the MCEV net worth was included in Other accounting and tax differences. For 30 June 2012, each reconciling item included the appropriate contribution from the US business.

For 30 June 2013 and 31 December 2012, the adjustments for DAC and DIR and differences in technical provisions mainly relate to the UK & Ireland.

Group MCEV analysis of earnings

For the six month period ending 30 June 2013

Reviewed 6 months 2013	Covered business ^{1,4} £m A	Non- covered but related to life business ² £m B	Total life business ³ £m A+B	Non- covered relating to non-life £m C	Total non- covered business ⁴ £m B+C	Total £m A+B+C
Opening Group MCEV	14,941	1,175	16,116	(2,100)	(925)	14,016
Opening Adjustments ⁵	(1,058)	1,058	—	—	1,058	—
Adjusted opening Group MCEV	13,883	2,233	16,116	(2,100)	133	14,016
Operating MCEV earnings	741	94	835	3	97	838
Non-operating MCEV earnings	222	186	408	(168)	18	240
Total MCEV earnings	963	280	1,243	(165)	115	1,078
Other movements in IFRS net equity	—	(417)	(417)	(67)	(484)	(484)
Capital and dividend flows	(762)	23	(739)	304	327	(435)
Foreign exchange variances	325	108	433	(27)	81	406
Acquired/divested business	(540)	(217)	(757)	757	540	—
Closing Group MCEV	13,869	2,010	15,879	(1,298)	712	14,581
Preference share capital, direct capital instruments and fixed rate tier 1 notes						(1,582)
Equity attributable to ordinary shareholders of Aviva plc on an MCEV basis						12,999

1 Covered business represents the business that the MCEV calculations cover, as detailed in F1 Basis of Preparation. The embedded value is presented net of non-controlling interests and tax.

2 Non-covered but related to life business represents the adjustments to the MCEV, including goodwill, to calculate the long-term business net assets on an MCEV basis. An analysis of net assets on an MCEV basis gross of non-controlling interests is provided in F7. Note that US Life is part of non-covered but related to life business with effect from 1 January 2013.

3 Net assets for the total life businesses on an MCEV basis presented net of non-controlling interests.

4 Covered business includes an adjustment for held for sale operations through the acquired/divested business line which is reflected as non-operating earnings for non-covered business, consistent with where the profit would arise on completion of the sale.

5 Represents the transfer of the held for sale US life operations from covered business to non-covered but related to life business as explained in F1 Basis of Preparation.

Restated ⁴ Reviewed 6 months 2012	Covered business ¹ £m A	Non- covered but related to life business ² £m B	Total life business ³ £m A+B	Non- covered relating to non-life £m C	Total non- covered business £m B+C	Total £m A+B+C
Opening Group MCEV	12,274	2,533	14,807	(788)	1,745	14,019
Operating MCEV earnings	744	—	744	38	38	782
Non-operating MCEV earnings	483	(873)	(390)	(377)	(1,250)	(767)
Total MCEV earnings	1,227	(873)	354	(339)	(1,212)	15
Other movements in IFRS net equity	—	87	87	(69)	18	18
Capital and dividend flows	(508)	—	(508)	484	484	(24)
Foreign exchange variances	(108)	(34)	(142)	(25)	(59)	(167)
Acquired/divested business	17	31	48	(48)	(17)	—
Closing Group MCEV	12,902	1,744	14,646	(785)	959	13,861
Preference share capital, direct capital instruments and fixed rate tier 1 notes						(1,582)
Equity attributable to ordinary shareholders of Aviva plc on an MCEV basis						12,279

1 Covered business represents the business that the MCEV calculations cover, as detailed in F1 Basis of preparation. The embedded value is presented net of non-controlling interests and tax.

2 Non-covered but related to life business represents the adjustments to the MCEV, including goodwill, to calculate the long-term business net assets on an MCEV basis. An analysis of net assets on an MCEV basis gross of non-controlling interests is provided in F7.

3 Net assets for the total life businesses on an MCEV basis presented net of non-controlling interests.

4 The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

Restated ⁵ Audited Full year 2012	Covered business ^{1,4} £m A	Non- covered but related to life business ² £m B	Total life business ³ £m A+B	Non- covered relating to non-life £m C	Total non- covered business £m B+C	Total £m A+B+C
Opening Group MCEV	12,274	2,533	14,807	(788)	1,745	14,019
Operating MCEV earnings	1,070	—	1,070	(77)	(77)	993
Non-operating MCEV earnings	713	(1,203)	(490)	517	(686)	27
Total MCEV earnings	1,783	(1,203)	580	440	(763)	1,020
Other movements in IFRS net equity	—	(145)	(145)	(637)	(782)	(782)
Capital and dividend flows	(283)	—	(283)	178	178	(105)
Foreign exchange variances	(60)	(41)	(101)	(35)	(76)	(136)
Acquired/divested business	1,227	31	1,258	(1,258)	(1,227)	—
Closing Group MCEV	14,941	1,175	16,116	(2,100)	(925)	14,016
Preference share capital, direct capital instruments and fixed rate tier 1 notes						(1,582)
Equity attributable to ordinary shareholders of Aviva plc on an MCEV basis						12,434

1 Covered business represents the business that the MCEV calculations cover, as detailed in F1 Basis of Preparation. The embedded value is presented net of non-controlling interests and tax.

2 Non-covered but related to life business represents the adjustments to the MCEV, including goodwill, to calculate the long-term business net assets on an MCEV basis. An analysis of net assets on an MCEV basis gross of non-controlling interests is provided in F7.

3 Net assets for the total life businesses on an MCEV basis presented net of non-controlling interests.

4 Covered business includes an adjustment for held for sale operations through the acquired/divested business line which is reflected as non-operating earnings for non-covered business, consistent with where the profit would arise on completion of the sale.

5 The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

F1 – Basis of preparation

The consolidated income statement and consolidated statement of financial position on pages 110 to 113 present the Group's results and financial position for the covered life and related businesses on the Market Consistent Embedded Value (MCEV) basis and for its non-covered businesses and non-covered but related to life businesses on the International Financial Reporting Standards (IFRS) basis.

The MCEV methodology adopted is in accordance with the MCEV Principles[©] published by the CFO Forum in October 2009 with the exception of stating held for sale operations at their expected fair value, as represented by expected sale proceeds, less cost to sell.

The CFO Forum Guidance is not adopted in a number of respects:

- Guidance 2.1 requires that covered business includes contracts regarded as long-term life insurance business. However the US operations are not included in the covered business from 1 January 2013 as MCEV is not used to manage the business due to the pending sale of the operation.
- Guidance 17.4 requires that sensitivities are provided for the total MCEV results. However, the sensitivity analysis in note F19 excludes held for sale operations, reflecting that these operations are stated at expected fair value less cost to sell.
- Guidance 17.3.29 indicates that changes to models to reflect improvements or rectify errors should be included in the 'other operating variances' line in the analysis of earnings. Where possible, such model refinements have been reported in the analysis of earnings on the line where the impact would have occurred in order to provide better information when considering assumption changes/experience variances over multiple reporting periods.
- Guidance 17.3.32 and 17.3.47 indicates that, when a company has more than one geographical area of operation, the business classifications disclosed should be consistent with those used for the IFRS financial statements. While MCEV results have been aligned with Aviva's management structure following the changes announced in the first quarter of 2013 the classifications have been presented at a more aggregated level than those segments presented in B5 which are in line with IFRS 8.

The directors consider that the MCEV methodology gives useful insight into the drivers of financial performance of the Group's life and related businesses. This basis values future cash flows from assets consistently with market prices, including explicit allowance for the impact of uncertainty in future investment returns and other risks. Embedded value is also consistent with the way pricing is assessed and the business is managed.

The results for our half year report have been reviewed by our auditors, PricewaterhouseCoopers LLP. The PricewaterhouseCoopers LLP report in respect of the half-year can be found on page 148.

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Covered business

The MCEV calculations cover the following lines of business unless specifically noted below: life insurance, long-term health and accident insurance, savings, pensions and annuity business written by our life insurance subsidiaries, including managed pension fund business and our share of certain life and related business written in our associated undertakings and joint ventures, as well as the equity release business written in the UK.

Covered business includes the Group's share of our joint ventures including our associated undertakings in India, China, Turkey, Malaysia (until disposal in April 2013), Taiwan and South Korea. In addition, the results of Group companies providing significant administration, fund management and other services and of Group holding companies have been included to the extent that they relate to covered business. Together these businesses are referred to as "Life and related businesses".

The following are not included within covered business:

- US operations from 1 January 2013 as described under Treatment of US operations below.
- Delta Lloyd in the current and all comparative periods. From 6 May 2011 to 5 July 2012, Delta Lloyd was an associate and was removed from the covered business as MCEV was not used to manage the operation. From 5 July 2012 up to when Delta Lloyd was sold on 8 January 2013, Aviva's remaining investment holding is not included within covered business. For 'Group' MCEV reporting, which includes general insurance and other non-covered business, Delta Lloyd is included on an IFRS basis.

Held for Sale operations (excluding US)

Aviva's methodology adopts the MCEV Principles published by the CFO Forum in October 2009 with the exception of stating held for sale operations at their expected fair value less cost to sell in the consolidated statement of financial position.

It is considered that the CFO Forum MCEV Principles were designed to define the approach to valuing covered business on an ongoing basis and do not explicitly define the appropriate treatment of covered business operations that are held for sale. For these operations, where there is an expected sale price, the directors believe it is reasonable to value the shareholders' interest as the expected fair value less cost to sell thus reflecting the expected value upon completion of the transaction.

Certain life covered operations are classified as held for sale, consistent with the IFRS classification as detailed in note F18. The life covered MCEV for the held for sale operations has been adjusted within the value of in force business and this adjustment has been reported in the analysis of earnings through the acquired/divested business line, resulting in an increase to the closing MCEV at 30 June 2013 of £48 million (*31 December 2012: £175 million, 30 June 2012: nil*). The adjustment reflects the amount needed to align the contribution to shareholder equity with the expected fair value less cost to sell. There is no impact to the life and related business MCEV operating profits and total earnings. The consolidated income statement includes a profit on disposal and remeasurement of subsidiaries and associates, based on the expected fair value less cost to sell, of £48 million (*31 December 2012: £175 million, 30 June 2012: nil*) in relation to the life covered held for sale operations.

In line with the preparation of the consolidated statement of financial position - MCEV basis, the assets and liabilities of held for sale operations are stated at the IFRS values with any differences in measurement on an MCEV basis reflected in the additional value of in-force long term business.

Within the sensitivity analysis F19, and other disclosures where applicable, held for sale operations are excluded, reflecting that these operations are stated at expected fair value less cost to sell. Further details are provided against each applicable disclosure.

F1 – Basis of preparation continued

Treatment of US Operations

For 2012, the US was included in covered business. Following the classification of the United States business as Held for Sale on 21 December 2012, the US was re-measured to expected fair value less cost to sell, in line with treatment of other Held for Sale operations, as described above. This resulted in an increase to the closing life MCEV at 31 December 2012 of £1,095 million to £1,058 million. This adjustment was reported in the analysis of earnings through the acquired/divested line, and hence there was no impact to the life and related business MCEV operating profits and total earnings.

From 1 January 2013 the results for the held for sale operations in the US are not included within the covered business as MCEV is not used to manage this business due to the pending sale of the operations. For Group MCEV reporting, which includes general insurance and other non-covered business, the US operations are included on an IFRS basis within non-covered but related to life business. The transfer to non-covered but related to life business is reported as an 'opening adjustment' in both the Group MCEV and covered business analysis of earnings. There is no impact to the total earnings from the transfer as the US operations are reported on both an IFRS and MCEV basis at the expected fair value less cost to sell. During the period the fair value less costs to sell of US Life included in the consolidated statement of financial position – MCEV basis has increased to £523 million (31 December 2012: £367 million). Please refer to note B4 for details on how this remeasurement is recognised in the income statement and in other comprehensive income.

In line with IFRS, the results for the held for sale operations in the United States are presented as discontinued operations.

New business premiums

New business premiums include:

- premiums arising from the sale of new contracts during the period;
- non-contractual additional premiums; and
- expected renewals on new contracts and expected future contractual alterations to new contracts.

The Group's definition of new business under MCEV includes contracts that meet the definition of "non-participating investment" contracts under IFRS.

For products sold to individuals, premiums are considered to represent new business where a new contract has been signed, or where underwriting has been performed. Renewal premiums include contractual renewals, non-contractual variations that are reasonably predictable and recurrent single premiums that are pre-defined and reasonably predictable.

For group products, new business includes new contracts and increases to aggregate premiums under existing contracts. Renewal premiums are based on the level of premium received during the reporting period and allow for premiums expected to be received beyond the expiry of any guaranteed premium rates.

Life and pensions operating earnings

For life and pensions operating earnings, Aviva uses normalised investment returns. The use of asset risk premia reflects management's long-term expectations of asset returns in excess of the swap yield from investing in different asset classes.

The normalised investment return on equities and property has been calculated by reference to the ten-year swap rate in the relevant currency plus an appropriate risk premium. The expected return on bonds has been calculated by reference to the swap rate consistent with the duration of the backing assets in the relevant currency plus an appropriate risk margin (expected return is equivalent to the gross redemption yield less an allowance for defaults).

The expected existing business contribution (in excess of reference rate) is calculated using the implied discount rate (IDR), which itself is based on the normalised investment returns. The methodology applies the IDR to the Value of In Force (VIF) and Required Capital (RC) components of the MCEV and adds to this the total expected return for Free Surplus (FS) to derive the total expected return, in a manner consistent with that previously used under European Embedded Value reporting. This total is presented as the expected existing business contribution (reference rate), expected existing business contribution (in excess of reference rate) and expected return on shareholders' net worth (grossed up for tax for pre-tax presentation), with only the excess contribution being impacted by the approach. For businesses where the IDR is unpublished, the expected return in excess of the reference rate is calculated as the excess of the real world equivalent embedded value (EqEV) over the MCEV amortised over the average duration of the portfolio. The approach to expected return has no impact on total return or on the closing balance sheet.

MCEV methodology

Overview

Under the MCEV methodology, profit is recognised as it is earned over the life of products defined within covered business. The total profit recognised over the lifetime of a policy is the same as under the IFRS basis of reporting, but the timing of recognition is different.

Calculation of the embedded value

The shareholders' interest in the life and related businesses is represented by the embedded value. The embedded value is the total of the net worth of the life and related businesses and the value of in-force covered business. Calculations are performed separately for each business and are based on the cash flows of that business, after allowing for both external and intra-Group reinsurance. Where one life business has an interest in another, the net worth of that business excludes the interest in the dependent company.

The embedded value is calculated on an after-tax basis applying current legislation and practice together with future known changes. Consistent with CFO Forum guidance issued in 2012, no explicit allowance has been made for the developing European regulation regime (Solvency II) and associated consequences. No allowance has been made for potential legislation change relating to Pillar II pensions in Poland, as outlined in section F18. Where gross results are presented, these have been calculated by grossing up post-tax results at the full rate of corporation tax for each country based on opening period tax rates, apart from the UK, where a 23% tax rate was used for 2013 for grossing up (2012: 24%).

F1 – Basis of preparation continued

Net worth

The net worth is the market value of the shareholders' funds and the shareholders' interest in the surplus held in the non-profit component of the long-term business funds, determined on a statutory solvency basis and adjusted to add back any non-admissible assets, and consists of the required capital and free surplus.

Required capital is the market value of assets attributed to the covered business over and above that required to back liabilities for covered business, for which distribution to shareholders is restricted. Required capital is reported net of implicit items permitted on a local regulatory basis to cover minimum solvency margins which are assessed at a local entity level. The level of required capital for each business unit is generally set equal to the highest of:

- The level of capital at which the local regulator is empowered to take action;
- The capital requirement of the business unit under the Group's economic capital requirements; and
- The target capital level of the business unit;

where "highest of" is assessed as the basis yielding the lowest level of free assets.

For Aviva US, the required capital is set at 325% of the NAIC Company Action Level, in line with management targets and target credit ratings, for comparative periods.

This methodology reflects the level of capital considered by the directors to be appropriate to manage the business, and includes any additional shareholder funds not available for distribution, such as the reattributed inherited estate in the UK. The same definition of required capital is used for both existing and new business except in certain entities in Italy and Spain where new business reflects the targeted capital level which better reflects the capital requirements of the new business. The total required capital for the entities in question is based on the overall biting constraint. There is a true-up within economic variances for the difference between calculating the new business required capital on a target rather than economic capital basis.

The level of required capital across the business units expressed as a percentage of the EU minimum solvency margin (or equivalent) can be found in F18.

The free surplus is the market value of any assets allocated to, but not required to support, the in-force covered business at the valuation date.

Value of in-force covered business (VIF)

The value of in-force covered business consists of the following components:

- present value of future profits;
- time value of financial options and guarantees;
- frictional costs of required capital; and
- cost of residual non-hedgeable risks.

Present value of future profits (PVFP)

This is the present value of the distributable profits to shareholders arising from the in-force covered business projected on a best estimate basis.

Distributable profits generally arise when they are released following actuarial valuations. These valuations are carried out in accordance with any local statutory requirements designed to ensure and demonstrate solvency in long-term business funds. Future distributable profits will depend on experience in a number of areas such as investment return, discontinuance rates, mortality, administration costs, as well as management and policyholder actions. Releases to shareholders arising in future years from the in-force covered business and associated required capital can be projected using assumptions of future experience.

Future profits are projected using best estimate non-economic assumptions and market consistent economic assumptions. In principle, each cash flow is discounted at a rate that appropriately reflects the riskiness of that cash flow, so higher risk cash flows are discounted at higher rates. In practice, the PVFP is calculated using the "certainty equivalent" approach, under which the reference rate is used for both the investment return and the discount rate. This approach ensures that asset cash flows are valued consistently with the market prices of assets without options and guarantees. Further information on the risk-free rates is given in note F18.

The PVFP includes the capitalised value of profits and losses arising from subsidiary companies providing administration, investment management and other services to the extent that they relate to covered business. This is referred to as the "look through" into service company expenses. In addition, expenses arising in holding companies that relate directly to acquiring or maintaining covered business have been allowed for. Where external companies provide services to the life and related businesses, their charges have been allowed for in the underlying projected cost base.

Time value of financial options and guarantees (TVOG)

The PVFP calculation is based on a single (base) economic scenario; however, a single scenario cannot appropriately allow for the effect of certain product features. If an option or guarantee affects shareholder cash flows in the base scenario, the impact is included in the PVFP and is referred to as the intrinsic value of the option or guarantee; however, future investment returns are uncertain and the actual impact on shareholder profits may be higher or lower. The value of in-force business needs to be adjusted for the impact of the range of potential future outcomes. Stochastic modelling techniques can be used to assess the impact of potential future outcomes, and the difference between the intrinsic value and the total stochastic value is referred to as the time value of the option or guarantee.

Stochastic modelling typically involves projecting the future cash flows of the business under thousands of economic scenarios that are representative of the possible future outcomes for market variables such as interest rates and equity returns. Under a market consistent approach, the economic scenarios generated reflect the market's tendency towards risk aversion. Allowance is made, where appropriate, for the effect of management and/or policyholder actions in different economic conditions on future assumptions such as asset mix, bonus rates and surrender rates.

Stochastic models are calibrated to market yield curves and volatility levels at the valuation date. Tests are performed to confirm that the scenarios used produce results that replicate the market price of traded instruments.

F1 – Basis of preparation continued

Where evidence exists that persistency rates are linked to economic scenarios, dynamic lapse assumptions are set that vary depending on the individual scenarios. This cost is included in the TVOG. Dynamic lapses are modelled for parts of the UK, US (for comparative periods), French and Spanish businesses. Asymmetries in non-economic assumptions that are linked to economic scenarios, but that have insufficient evidence for credible dynamic assumptions, are allowed for within mean best estimate assumptions.

Frictional costs of required capital

The additional costs to a shareholder of holding the assets backing required capital within an insurance company rather than directly in the market are called frictional costs. They are explicitly deducted from the PVFP. The additional costs allowed for are the taxation costs and any additional investment expenses on the assets backing the required capital. The level of required capital has been set out above in the net worth section.

Frictional costs are calculated by projecting forwards the future levels of required capital in line with drivers of the capital requirement. Tax on investment return and investment expenses are payable on the assets backing required capital, up until the point that they are released to shareholders.

Cost of residual non-hedgeable risks (CNHR)

The cost of residual non-hedgeable risks (CNHR) covers risks not already allowed for in the time value of options and guarantees or the PVFP. The allowance includes the impact of both non-hedgeable financial and non-financial risks. The most significant risk not included in the PVFP or TVOG is operational risk.

Asymmetric risks allowed for in the TVOG or PVFP are described earlier in the basis of preparation. No allowance has been made within the cost of non-hedgeable risk for symmetrical risks as these are diversifiable by investors.

US capital solutions

Credit has been taken within the US embedded value and value of new business, for comparative periods, for the anticipated reduction in capital requirements based on management's intention to enact transactions which allow recognition of additional assets that can be held against certain reserves, reducing shareholder capital requirements. These 'AXXX/XXX' transactions are fixed-term and are assumed to renew at current market rates. Enacting such transactions is common practice within the US market, and by the end of 2012, transactions have been enacted for all business written from 2006 to 2012.

New business tax

New business for US (comparative periods) and Italy has been valued on a basis with tax applied at the full corporation rate and consequential movements in the value of the Deferred Tax Asset included as a variance within existing business operating return.

Participating business

Future regular bonuses on participating business are projected in a manner consistent with current bonus rates and expected future market-consistent returns on assets deemed to back the policies.

For with-profit funds in the UK and Ireland, for the purpose of recognising the value of the estate, it is assumed that terminal bonuses are increased to exhaust all of the assets in the fund over the future lifetime of the in-force with-profit policies. However, under stochastic modelling there may be some extreme economic scenarios when the total assets in the Group's with-profit funds are not sufficient to pay all policyholder claims. The average additional shareholder cost arising from this shortfall has been included in the TVOG.

For profit-sharing business in continental Europe, where policy benefits and shareholder value depend on the timing of realising gains, the apportionment of unrealised gains between policyholders and shareholders reflect contractual requirements as well as existing practice. Under certain economic scenarios where additional shareholder injections are required to meet policyholder payments, the average additional cost has been included in the TVOG.

For comparative periods the embedded value of the US spread-based products anticipates the application of management discretion allowed for contractually within the policies, subject to contractual guarantees. This includes the ability to change the crediting rates and indexed strategies available within the policy. Consideration is taken of the economic environment assumed in future projections and returns in excess of the reference rate are not assumed. Anticipated market and policyholder reaction to each management action has been considered.

Consolidation adjustments

The effect of transactions between the Group's life companies such as loans and reinsurance arrangements have been included in the results split by territory in a consistent manner. No elimination is required on consolidation.

As the MCEV methodology incorporates the impact of profits and losses arising from subsidiary companies providing administration, investment management and other services to the Group's life companies, the equivalent profits and losses have been removed from the relevant segment (other operations or fund management) and are instead included within the results of life and related businesses. In addition, the underlying basis of calculation for these profits has changed from the IFRS basis to the MCEV basis.

The capitalised value of the future profits and losses from such service companies are included in the embedded value and value of new business calculations for the relevant business, but the net assets (representing historical profits and other amounts) remain under other operations or fund management. In order to reconcile the profits arising in the financial period within each segment with the assets on the opening and closing statement of financial positions, a transfer of IFRS profits from life and related business to the appropriate segment is deemed to occur. An equivalent approach has been adopted for expenses within our holding companies.

The assessments of goodwill, intangibles and pension schemes relating to life insurance business utilise the IFRS measurement basis with any required adjustment reflected in the additional value of the in force long-term business in the consolidated statement of financial position.

F1 – Basis of preparation continued

Exchange rates

The Group's principal overseas operations during the period were located within the Eurozone, the US (for comparative periods) and Poland.

The results and cash flows of these operations have been translated at the average rates for that period and the assets and liabilities have been translated at the period end rates. Please refer to note F18.

Restatement of prior period figures

Restatements of IFRS financial statements have been consistently reflected in the Group MCEV financial statements. These reflect:

- A change in accounting requirements for employee benefits (IAS 19) resulting in an increase to profit before tax for the 6 month period ending 30 June 2012 of £74 million and profit before tax for the full year 2012 of £150 million in the consolidated income statement, with a corresponding decrease in other comprehensive income. There is no change to total comprehensive income or equity reported in the consolidated statements for these periods.
- A change in accounting requirement for consolidated financial statements (IFRS 10) resulting in a net decrease in total assets and total liabilities on an IFRS basis of £1,839 million as at 30 June 2012 and £946 million as at 31 December 2012 in the consolidated statement of financial position. There is no impact on profit or equity reported for the periods ending 30 June 2012 and 31 December 2012.
- A reclassification of certain contracts issued by the Group's Italian long-term business from participating insurance contracts to participating investment contracts in the IFRS financial statements. As a result there has been a reallocation from gross insurance liabilities to gross liabilities for investment contracts of £2,515 million at 30 June 2012 in the consolidated statement of financial position; this reclassification had previously been applied in the 2012 Report and Accounts. There is no impact on profit for the period or equity reported for the period ending 30 June 2012.
- As described in note B4, the Group's US life and annuity business and associated investment management operations (together 'US Life') have been classified as held for sale. Consistent with the presentation in the Group's 2012 Report and Accounts, the results of US Life for the period, as well as those for preceding periods, have been classified as discontinued operations.
- In the first quarter of 2013, the Group announced modifications to its management structure. As a result, the Group's operating segments were reviewed to align them with the revised organisational reporting structure. This has resulted in changes to the reportable operating segments as described in note B5. The geographical analysis in MCEV is presented at a more aggregated level than the reportable operating segments set out in note B5.
- IAS1 Presentation of Financial Statements (amended) requires the grouping of items presented in other comprehensive income according to whether they will subsequently be reclassified to the income statement. The criteria when items are required to be reclassified from other comprehensive income to the income statement are set out in the "Accounting policies" section in the audited consolidated financial statements included in the Group's 2012 Report and Accounts. The adoption of the amendments to IAS 1 results in a revised presentation of the statement of comprehensive income in these interim financial statements.

Further explanation of these changes is provided in notes B1 and B2.

F2 – Development of MCEV

The life covered MCEV (net of tax and minority interest) is £13,869 million, a decrease of £14 million in the period from the adjusted opening MCEV of £13,883 million. This movement comprises earnings of £963 million in the six months, reduced by dividends and other capital flows from the covered business of £762 million and £540 million reduction reflecting the transfer of part of our Spanish business to Bankia and disposal of other smaller ventures. These items were partly offset by a positive movement in the exchange rates.

The opening adjustment, which reduced the MCEV by £1,058 million, from £14,941 million to £13,883 million, is due to the re-classification of Aviva USA to non-covered business.

Profitability (pre tax and before minority interest, for continuing operations)

New Business

New business volumes reduced by 6% on a PVNBP basis, principally driven by lower sales in the UK. More than offsetting this, margins improved significantly to 3.9% (HY12: 3.1%). This improvement has been primarily driven by the UK, where the margin has improved to 4.8% (HY12: 3.4%) mainly as a result of pricing actions taken in the second half of 2012 in the annuity book. In addition there were strong performances in France, Turkey and Asia, reflecting higher volumes and improved margins, partly offset by reductions in Italy and Spain. As a result, the value of new business (VNB) has increased by 17% to £401 million (HY12: £343 million).

Expected Return

The total expected return was lower at £685 million before tax and minority interests (HY12: £949 million), consisting of £579 million (HY12: £799 million) expected return from existing business together with £106 million (HY12: £150 million) expected return on shareholder net worth. The reduction from the previous year is principally driven by changes in Italy and the UK. In Italy, expected return includes an anticipated release of allowances for guarantees in the opening MCEV. This allowance was significantly lower at the start of 2013, reflecting the recovery in economic conditions. In the UK the expected return reduced significantly reflecting a lower IDR at FY12 and a de-risking of shareholder funds.

Management actions and other variances

Experience variances and operating assumption changes total £(45) million (HY12: £(39) million), reflecting the strengthening of persistency assumptions in Spain following poor short-term experience in our joint ventures.

Other operating variances of £160 million (HY12: £(106) million) primarily reflect the benefit from agreements made to reduce long-term guarantees as soon as contractually possible on with profit business in Italy. In addition, management actions in France have reduced the expected value of guaranteed minimum death benefits giving rise to an increase in operating profits.

Non-operating earnings

Non-operating earnings in the period were £534 million (HY12: £1,009 million), made up of economic variances of £555 million (HY12: £1,022 million) and other non-operating variances of £(21) million (HY12: £(13) million). This variance is driven by favourable economic variances, particularly in the UK, Spain and Italy. In the UK positive variances arising due to narrowing credit spreads, future tax rate reductions and asset out performance have been partially offset by adverse credit default experience on commercial mortgages and losses due to increases in the risk-free rate. In Spain and Italy economic variances have been driven by narrowing credit spreads.

Life Operating Capital Generation (OCG)

The profitability of the business can be analysed into impacts on free surplus, required capital and value of in force business (see note F8). This shows how investment in new business generates additional future profit, how expected profits and releases of capital emerge from existing business in the period, as well as how experience has changed from what was anticipated in the opening value.

These movements are shown net of tax and minority interest, and the free surplus operating earnings form the basis of OCG for life and related business.

New Business Strain

Investment in writing new business was £164 million (HY12: £250 million), reflecting the benefit of re-pricing of individual annuity business in the UK, together with savings in acquisition costs and the impact of lower new business volumes. This investment included locking in £85 million (HY12: £91 million) of required capital, which will be released over time, and £79 million (HY12: £159 million) of net worth strain, and has resulted in an increased value of future profits of £364 million (HY12: £390 million).

Expected Transfer to Free Surplus

The expected emergence of profits and run-off of required capital associated with the in-force portfolio contributed £610 million to OCG (HY12: £620 million). In addition, OCG benefits from the transfer to free surplus from the expected return on shareholders' net worth of £10 million (HY12: £33 million) to give a total life expected free surplus generation of £620 million (HY12: £653 million).

Management actions and other variances

In aggregate, the impact of experience variances and operating assumption changes on free surplus is small at £(10) million (HY12: £55 million).

Other operating variances have a positive impact of £188 million (HY12: £170 million). This includes the impact of actions to convert future value into free surplus, as is normal industry practice, and the reserving benefit arising from actions which improve expected profitability, including reducing guarantees.

In aggregate, experience variances, assumption changes and other operating variances contribute £178 million to OCG (HY12: £225 million).

F3 – Geographical analysis of life MCEV operating earnings

Gross of tax and non-controlling interest 6 months 2013	UK & Ireland £m	Europe £m	Asia £m	Other £m	Total £m
Value of new business	212	147	42	—	401
Earnings from existing business					
– expected existing business contribution (reference rate)	95	69	10	—	174
– expected existing business contribution (in excess of reference rate) ¹	126	273	6	—	405
	221	342	16	—	579
Experience variances					
– maintenance expense	4	(8)	(2)	—	(6)
– project and other related expenses ²	(24)	(2)	(7)	—	(33)
– mortality/morbidity	1	4	1	—	6
– lapses ³	(16)	6	(1)	(1)	(12)
– other	(1)	7	2	—	8
	(36)	7	(7)	(1)	(37)
Operating assumption changes:					
– maintenance expense	(1)	—	—	—	(1)
– project and other related expenses	—	—	—	—	—
– mortality/morbidity ⁴	(3)	1	12	—	10
– lapses ⁵	—	(25)	1	—	(24)
– other	7	—	—	—	7
	3	(24)	13	—	(8)
Expected return on shareholders' net worth	36	62	7	1	106
Other operating variances ⁶	7	155	(2)	—	160
Earnings before tax and non-controlling interests	443	689	69	—	1,201

1 The expected existing business contribution (in excess of reference rate) for Europe is lower at HY13 than HY12 as the release of the allowance for guarantees in Italy is lower.

2 Within the UK project and other related expenses reflect higher than expected expenditure on development of systems and processes

3 Persistency experience remains volatile across most of our business, in part reflecting the wider economic circumstances. Positive lapse variance in Europe reflects increased lapses on business with guarantees in Italy.

4 Morbidity assumptions have been updated in Korea.

5 Persistency assumptions include additional provisions in Spain reflecting adverse experience in the joint ventures.

6 Other operating variances reflect management actions taken to reduce guarantees on existing business in Italy and France.

Gross of tax and non-controlling interest Restated 6 months 2012	UK & Ireland £m	Europe £m	Asia £m	Other £m	Continuing operations £m	Discontinued operations £m	Total £m
Value of new business	176	130	37	—	343	(138)	205
Earnings from existing business							
– expected existing business contribution (reference rate)	109	119	11	—	239	33	272
– expected existing business contribution (in excess of reference rate)	207	350	3	—	560	253	813
	316	469	14	—	799	286	1,085
Experience variances							
– maintenance expense	8	(6)	(1)	1	2	6	8
– project and other related expenses ¹	(34)	(4)	(4)	—	(42)	(10)	(52)
– mortality/morbidity	(9)	14	6	—	11	(9)	2
– lapses ²	(14)	(4)	(8)	—	(26)	3	(23)
– other ³	12	28	(3)	—	37	(86)	(49)
	(37)	28	(10)	1	(18)	(96)	(114)
Operating assumption changes:							
– maintenance expenses	4	—	1	—	5	—	5
– project and other related expenses	—	—	—	—	—	—	—
– mortality/morbidity	(4)	—	4	—	—	—	—
– lapses ⁴	7	(15)	3	—	(5)	—	(5)
– other ⁵	(27)	—	—	6	(21)	—	(21)
	(20)	(15)	8	6	(21)	—	(21)
Expected return on shareholders' net worth	63	78	9	—	150	31	181
Other operating variances ⁶	(27)	(77)	(2)	—	(106)	(2)	(108)
Earnings before tax and non-controlling interests	471	613	56	7	1,147	81	1,228

1 Project and other related expenses include higher expenditures related to increased level of regulatory change in the UK.

2 Persistency experience remains volatile across most of our business, in part reflecting the wider economic circumstances.

3 Other experience includes the marginal impact of new business on the value of deferred losses in the US and Italy as well as other tax variances in the US.

4 Persistency assumptions include an additional short term provision in Italy reflecting economic circumstances.

5 Other assumption changes include a revision to profit margins on asset management in the UK.

6 Other operating variances include the impact of modelling refinements in France and Italy and the cost of capital management initiatives in the UK.

F3 – Geographical analysis of life MCEV operating earnings continued

Gross of tax and non-controlling interest Restated Full year 2012	UK & Ireland £m	Europe £m	Asia £m	Other £m	Continuing operations £m	Discontinued operations £m	Total £m
Value of new business	412	271	63	—	746	(280)	466
Earnings from existing business							
– expected existing business contribution (reference rate)	229	234	24	—	487	85	572
– expected existing business contribution (in excess of reference rate)	403	682	5	—	1,090	483	1,573
	632	916	29	—	1,577	568	2,145
Experience variances							
– maintenance expense ¹	(28)	(11)	—	1	(38)	(16)	(54)
– project and other related expenses ¹	(75)	(2)	(2)	—	(79)	(21)	(100)
– mortality/morbidity ²	(2)	24	3	—	25	(24)	1
– lapses ³	(8)	30	(12)	(1)	9	1	10
– other ⁴	(7)	8	3	1	5	(110)	(105)
	(120)	49	(8)	1	(78)	(170)	(248)
Operating assumption changes:							
– maintenance expenses ⁵	10	(32)	(3)	4	(21)	—	(21)
– project and other related expenses	—	—	—	—	—	—	—
– mortality/morbidity ⁶	(34)	32	9	—	7	(220)	(213)
– lapses ⁷	(7)	(244)	—	—	(251)	(72)	(323)
– other ⁸	(24)	215	—	—	191	(94)	97
	(55)	(29)	6	4	(74)	(386)	(460)
Expected return on shareholders' net worth	112	155	16	1	284	63	347
Other operating variances ⁹	(58)	(191)	1	(1)	(249)	(173)	(422)
Earnings before tax and non-controlling interests	923	1,171	107	5	2,206	(378)	1,828

1 Adverse expense experience occurred across a number of businesses. Within the UK the maintenance expense variance reflects a one-off realignment of investment expense allocation between With Profit and Non Profit business and project and other related expenses include higher expenditures related to increased level of regulatory change.

2 Mortality experience continues to be better than the assumption set across a number of our businesses.

3 Persistency experience remains volatile across most of our business, in part reflecting the wider economic circumstances. Positive lapse variance in Europe reflects increased lapses on business with guarantees in Italy.

4 Other experience includes the marginal impact of new business on the value of deferred losses in the US and Italy as well as other tax variances in the US and the impact of policyholders switching to with profit funds in France.

5 Maintenance expense assumptions have been revised based on recent analysis.

6 Mortality assumptions have been updated in the UK and US, primarily related to annuities.

7 Persistency assumptions have been updated in a number of businesses and include additional provisions in Europe reflecting economic circumstances.

8 Other operating assumption changes in Europe relate to a change to assumed management actions in relation to product charges in Poland.

9 Other operating variances relate to modelling refinements in the UK, France and Italy and the cost of capital transactions and model refinements in the US.

Net of tax and non-controlling interest 6 months 2013	UK & Ireland £m	Europe £m	Asia £m	Other £m	Total £m
Value of new business	163	87	35	—	285
Earnings from existing business					
– expected existing business contribution (reference rate)	74	44	8	—	126
– expected existing business contribution (in excess of reference rate) ¹	97	134	5	—	236
	171	178	13	—	362
Experience variances					
– maintenance expense	3	(2)	(1)	—	—
– project and other related expenses ²	(18)	(1)	(6)	—	(25)
– mortality/morbidity	1	2	1	—	4
– lapses ³	(13)	2	(1)	—	(12)
– other	(1)	3	1	—	3
	(28)	4	(6)	—	(30)
Operating assumption changes:					
– maintenance expense	(1)	—	—	—	(1)
– project and other related expenses	—	—	—	—	—
– mortality/morbidity ⁴	(2)	—	10	—	8
– lapses ⁵	—	(9)	1	—	(8)
– other	6	—	—	—	6
	3	(9)	11	—	5
Expected return on shareholders' net worth	28	30	6	—	64
Other operating variances ⁶	6	51	(2)	—	55
Earnings after tax and non-controlling interests	343	341	57	—	741

1 The expected existing business contribution (in excess of reference rate) for Europe is lower at HY13 than HY12 as the release of the allowance for guarantees in Italy is lower.

2 Within the UK project and other related expenses reflect higher than expected expenditure on development of systems and processes.

3 Persistency experience remains volatile across most of our businesses, in part reflecting the wider economic circumstances. Positive lapse experience in Europe reflects increased lapses on business with guarantees in Italy.

4 Morbidity assumptions have been updated in Korea.

5 Persistency assumptions include additional provisions in Spain reflecting adverse experience in the joint ventures.

6 Other operating variances reflect management actions taken to reduce guarantees on existing business in Italy and France.

F3 – Geographical analysis of life MCEV operating earnings continued

Net of tax and non-controlling interest Restated 6 months 2012	UK & Ireland £m	Europe £m	Asia £m	Other £m	Continuing operations £m	Discontinued operations £m	Total £m
Value of new business	135	67	29	—	231	(90)	141
Earnings from existing business							
– expected existing business contribution (reference rate)	82	76	8	—	166	21	187
– expected existing business contribution (in excess of reference rate)	156	137	2	—	295	165	460
	238	213	10	—	461	186	647
Experience variances							
– maintenance expense	6	(4)	—	1	3	4	7
– project and other related expenses ¹	(25)	(3)	(3)	—	(31)	(7)	(38)
– mortality/morbidity	(6)	9	5	—	8	(6)	2
– lapses ²	(10)	(7)	(5)	—	(22)	2	(20)
– other ³	9	11	(2)	—	18	(55)	(37)
	(26)	6	(5)	1	(24)	(62)	(86)
Operating assumption changes:							
– maintenance expenses	3	—	—	—	3	—	3
– project and other related expenses	—	—	—	—	—	—	—
– mortality/morbidity	(3)	—	3	—	—	—	—
– lapses ⁴	6	(5)	1	—	2	—	2
– other ⁵	(19)	—	—	4	(15)	—	(15)
	(13)	(5)	4	4	(10)	—	(10)
Expected return on shareholders' net worth	47	37	7	—	91	20	111
Other operating variances ⁶	(20)	(34)	(3)	(1)	(58)	(1)	(59)
Earnings after tax and non-controlling interests	361	284	42	4	691	53	744

1 Project and other related expenses include higher expenditures related to increased level of regulatory change in the UK.

2 Persistency experience remains volatile across most of our business, in part reflecting the wider economic circumstances.

3 Other experience includes the marginal impact of new business on the value of deferred losses in the US and Italy as well as other tax variances in the US.

4 Persistency assumptions include an additional short term provision in Italy reflecting economic circumstances.

5 Other assumption changes include a revision to profit margins on asset management in the UK.

6 Other operating variances include the impact of modelling refinements in France and Italy and the cost of capital management initiatives in the UK.

Net of tax and non-controlling interest Restated Full year 2012	UK & Ireland £m	Europe £m	Asia £m	Other £m	Continuing operations £m	Discontinued operations £m	Total £m
Value of new business	313	142	50	—	505	(182)	323
Earnings from existing business							
– expected existing business contribution (reference rate)	173	149	17	—	339	55	394
– expected existing business contribution (in excess of reference rate)	303	270	4	—	577	314	891
	476	419	21	—	916	369	1,285
Experience variances							
– maintenance expense ¹	(21)	(5)	—	1	(25)	(11)	(36)
– project and other related expenses ¹	(57)	(2)	(2)	—	(61)	(13)	(74)
– mortality/morbidity ²	(1)	12	3	—	14	(16)	(2)
– lapses ³	(7)	(8)	(7)	—	(22)	1	(21)
– other ⁴	(4)	(12)	2	—	(14)	(72)	(86)
	(90)	(15)	(4)	1	(108)	(111)	(219)
Operating assumption changes:							
– maintenance expenses ⁵	7	(34)	(2)	3	(26)	—	(26)
– project and other related expenses	(1)	—	—	—	(1)	—	(1)
– mortality/morbidity ⁶	(26)	19	7	—	—	(143)	(143)
– lapses ⁷	(6)	(124)	(1)	—	(131)	(47)	(178)
– other ⁸	(17)	152	—	—	135	(61)	74
	(43)	13	4	3	(23)	(251)	(274)
Expected return on shareholders' net worth	85	72	12	—	169	41	210
Other operating variances ⁹	(45)	(99)	1	—	(143)	(112)	(255)
Earnings after tax and non-controlling interests	696	532	84	4	1,316	(246)	1,070

1 Adverse expense experience occurred across a number of businesses. Within the UK the maintenance expense variance reflects a one-off realignment of investment expense allocation between With Profit and Non Profit business and project and other related expenses include higher expenditures related to increased level of regulatory change.

2 Mortality experience continues to be better than the assumption set across a number of our businesses.

3 Persistency experience remains volatile across most of our business, in part reflecting the wider economic circumstances. Positive lapse variance in Europe reflects increased lapses on business with guarantees in Italy.

4 Other experience includes the marginal impact of new business on the value of deferred losses in the US and Italy as well as other tax variances in the US and the impact of policyholders switching to with profit funds in France.

5 Maintenance expense assumptions have been revised based on recent analysis.

6 Mortality assumptions have been updated in the UK and US, primarily related to annuities.

7 Persistency assumptions have been updated in a number of businesses and include additional provisions in Europe reflecting economic circumstances.

8 Other operating assumption changes in Europe relate to a change to assumed management actions in relation to product charges in Poland.

9 Other operating variances relate to modelling refinements in the UK, France and Italy and the cost of capital transactions and model refinements in the US.

F4 – Geographical analysis of fund management operating earnings

The summarised consolidated income statement on an MCEV basis includes earnings from the Group's fund management operations as analysed below. This excludes the proportion of the results of Aviva Investors fund management businesses and other fund management operations within the Group that arise from the provision of fund management services to our Life businesses.

These results are included within the Life MCEV operating earnings.

	6 months 2013 £m	Restated 6 months 2012 £m	Full Year 2012 £m
Aviva Investors	14	2	12
United Kingdom	10	4	11
Asia	1	—	1
Total – continuing operations	25	6	24
Total – discontinued operations¹	22	1	4
Total	47	7	28

¹ Discontinued operations in 2013 represent the result for US operations on an IFRS basis. In the comparatives US operations are on a MCEV basis and exclude results for fund management services related to life business.

F5 – Other operations

Where subsidiaries provide services to our life business, that proportion has been excluded. For MCEV reporting, these results are included within the Life MCEV operating return.

	6 months 2013 £m	Restated 6 months 2012 £m	Restated Full Year 2012 £m
United Kingdom & Ireland	(20)	(12)	(20)
Europe	3	3	(6)
Asia	(6)	(9)	(12)
Other Group operations	(21)	(63)	(132)
Total – continuing operations	(44)	(81)	(170)
Total – discontinued operations¹	(2)	(2)	(4)
Total	(46)	(83)	(174)

¹ Discontinued operations in 2013 represent the result for US operations on an IFRS basis. In the comparatives US operations are on a MCEV basis and exclude results for other operations related to life business.

F6 – Exceptional items and integration and restructuring costs

Exceptional 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. There were no exceptional items during the first half of 2013 (HY12: nil; FY12: £51 million). For FY12 this related to pension regulation changes in Turkey and Poland.

Integration and restructuring costs for continuing business at HY13 were £163 million (HY12: £185 million; FY12: £464 million) and mainly include expenses associated with the Group's transformation programme. Compared with the prior period, integration and restructuring costs reduced by 10% mainly due to transformation activity in Ireland's general insurance business during the first half of 2012 which was not repeated in 2013 and a reduction in Solvency II implementation costs to £43 million (HY12: £71 million; FY12: £95 million), as the project moves towards completion.

F7 – Segmentation of consolidated statement of financial position

	30 June 2013			Restated 30 June 2012			Restated 31 December 2012		
	Life and related businesses £m	General business and other £m	Group £m	Life and related businesses £m	General business and other £m	Group £m	Life and related businesses £m	General business and other £m	Group £m
Total assets before acquired value of in-force long-term business	287,405	31,823	319,228	281,014	29,138	310,152	285,285	29,331	314,616
Acquired additional value of in-force long-term business	114	—	114	618	—	618	127	—	127
Total assets included in the IFRS statement of financial position	287,519	31,823	319,342	281,632	29,138	310,770	285,412	29,331	314,743
Liabilities of the long-term business	(275,366)	—	(275,366)	(266,736)	—	(266,736)	(272,450)	—	(272,450)
Liabilities of the general insurance and other businesses	—	(32,612)	(32,612)	—	(29,429)	(29,429)	—	(30,933)	(30,933)
Net assets on a statutory IFRS basis	12,153	(789)	11,364	14,896	(291)	14,605	12,962	(1,602)	11,360
Additional value of in-force long-term business ¹	5,239	—	5,239	1,064	—	1,064	4,870	—	4,870
Net assets on an MCEV basis²	17,392	(789)	16,603	15,960	(291)	15,669	17,832	(1,602)	16,230
Equity capital, capital reserves, shares held by employee trusts and other reserves			6,600			6,222			6,311
IFRS basis retained earnings			1,581			4,854			1,389
Additional MCEV basis retained earnings			4,818			1,203			4,734
Equity attributable to ordinary shareholders of Aviva plc on an MCEV basis			12,999			12,279			12,434
Preference share capital, direct capital instruments and fixed rate tier 1 notes			1,582			1,582			1,582
Non-controlling interests			2,022			1,808			2,214
MCEV basis total equity			16,603			15,669			16,230

¹ The analysis between the Group's and non-controlling interests' share of the additional value of in-force long-term business is as follows:

	6 months 2013 £m	Full Year 2012 £m	Movement in year £m
Group's share included in shareholders' funds	4,818	4,734	84
Non-controlling interests' share	516	640	(124)
Movement in AFS securities	(95)	(504)	409
Additional value in-force long-term business	5,239	4,870	369

As at 6 months 2012, the additional value in force of long-term business was £1,064 million, comprising Group's share included in shareholder funds of £1,203 million, non-controlling interests' share of £309 million and movement in AFS securities of £(448) million.

² Analysis of net assets on an MCEV basis is made up as follows:

	6 months 2013 £m	6 months 2012 £m	Full Year 2012 £m
Embedded Value	13,869	12,902	14,941
Non-controlling interests	1,346	1,152	1,556
	15,215	14,054	16,497
Goodwill and intangible assets allocated to long-term business ³	631	1,234	895
Notional allocation of IAS 19 pension fund surplus to long-term business ⁴	258	672	440
Life Net Assets on IFRS Basis ⁵	1,288	—	—
Long-term business net assets on an MCEV basis	17,392	15,960	17,832

³ Goodwill and intangible assets includes amounts related to associated undertakings and joint ventures and are after adjustments reflected in the additional value of in-force long-term business in the consolidated statement of financial position. In HY13 there is an adjustment to impair goodwill and intangibles by a further £13 million compared to IFRS (HY12: nil; FY12 £94 million). In aggregate, the goodwill and intangibles on an MCEV basis is £113 million (HY12: £nil; FY12: £94 million) lower than on an IFRS basis, allowing for exchange rate movements.

⁴ The value of the Aviva Staff Pension Scheme surplus has been notionally allocated between segments, based on current funding and, within the long-term business net assets on an MCEV basis, the Life proportion has been included. The pension fund surplus notionally allocated to long-term business is net of the agreed funding borne by the UK with-profit funds.

⁵ Represents US life held for sale operations which from 1 January 2013 are not included in the MCEV covered business as set out in F1 Basis of Preparation

F8 – Analysis of life and pension earnings

The following table provides an analysis of the movement in embedded value for covered business. The analysis is shown separately for free surplus, required capital and the value of in-force covered business, and includes amounts transferred between these categories. All figures are shown net of tax and non-controlling interests.

Net of tax and non-controlling interests 30 June 2013	Free surplus £m	Required capital ¹ £m	VIF £m	Total MCEV £m
Opening MCEV	2,078	7,789	5,074	14,941
Opening Adjustments ²	(252)	(1,463)	657	(1,058)
Adjusted Opening MCEV	1,826	6,326	5,731	13,883
New business value	(164)	85	364	285
Expected existing business contribution (reference rate)	—	—	126	126
Expected existing business contribution (in excess of reference rate)	—	—	236	236
Transfers from VIF and required capital to the free surplus	610	(155)	(455)	—
Experience variances	(15)	56	(71)	(30)
Assumption changes	5	6	(6)	5
Expected return on shareholders' net worth	10	54	—	64
Other operating variances	188	(14)	(119)	55
Operating MCEV earnings	634	32	75	741
Economic variances	(137)	(91)	466	238
Other non-operating variances ³	(17)	—	1	(16)
Total MCEV earnings	480	(59)	542	963
Capital & dividend flows ⁴	(762)	—	—	(762)
Foreign exchange variances	24	198	103	325
Acquired/divested business ⁵	(159)	(165)	(216)	(540)
Closing MCEV	1,409	6,300	6,160	13,869

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² Represents the removal of the US life held for sale operations from covered business on 1 January 2013 as set out in F1 Basis of Preparation

³ Other non-operating variances relate to costs for Solvency II implementation and other restructuring exercises.

⁴ Included within capital and dividend flows is the transfer to Life and related businesses from other segments consisting of service company profits and losses during the reported period that have emerged from the value of in-force.

Since the 'look through' into service companies includes only future profits and losses, these amounts must be eliminated from the closing embedded value.

⁵ Acquired/divested business includes the adjustment for held for sale operations and the disposal of Aseval, Ark Life, Malaysia, Russia and Romania pensions.

	Continuing operations				Discontinued operations				Total
Net of tax and non-controlling interests Restated 30 June 2012	Free surplus £m	Required capital ¹ £m	VIF £m	Total MCEV £m	Free surplus £m	Required capital ¹ £m	VIF £m	Total MCEV £m	Total MCEV £m
Opening MCEV	1,355	6,390	4,327	12,072	(11)	1,575	(1,362)	202	12,274
New business value	(250)	91	390	231	(199)	158	(49)	(90)	141
Expected existing business contribution (reference rate)	—	—	166	166	—	—	21	21	187
Expected existing business contribution (in excess of reference rate)	—	—	295	295	—	—	165	165	460
Transfers from VIF and required capital to the free surplus	620	(174)	(446)	—	302	(171)	(131)	—	—
Experience variances	83	(39)	(68)	(24)	(160)	47	51	(62)	(86)
Assumption changes	(28)	22	(4)	(10)	—	—	—	—	(10)
Expected return on shareholders' net worth	33	58	—	91	(6)	26	—	20	111
Other operating variances	170	3	(231)	(58)	(35)	—	34	(1)	(59)
Operating MCEV earnings	628	(39)	102	691	(98)	60	91	53	744
Economic variances	(388)	183	601	396	140	13	(55)	98	494
Other non-operating variances ²	(11)	—	1	(10)	(2)	—	1	(1)	(11)
Total MCEV earnings	229	144	704	1,077	40	73	37	150	1,227
Capital & dividend flows ³	(482)	—	—	(482)	(26)	—	—	(26)	(508)
Foreign exchange variance	3	(102)	(9)	(108)	—	(14)	14	—	(108)
Acquired/divested business ⁴	5	(4)	16	17	—	—	—	—	17
Closing MCEV	1,110	6,428	5,038	12,576	3	1,634	(1,311)	326	12,902

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² Other non-operating variances relate to costs for Solvency II implementation and other restructuring exercises.

³ Included within capital and dividend flows is the transfer to Life and related businesses from other segments consisting of service company profits and losses during the reported period that have emerged from the value of in-force.

Since the 'look through' into service companies includes only future profits and losses, these amounts must be eliminated from the closing embedded value.

⁴ Acquired/divested business includes acquisition of Pelayo Vida on 17 January 2012.

F8 – Analysis of life and pension earnings continued

Net of tax and non-controlling interests Full year 2012	Continuing operations				Discontinued operations				Total
	Free surplus £m	Required capital ¹ £m	VIF £m	Total MCEV £m	Free surplus £m	Required capital ¹ £m	VIF £m	Total MCEV £m	Total MCEV £m
Opening MCEV	1,355	6,390	4,327	12,072	(11)	1,575	(1,362)	202	12,274
New business value	(389)	155	739	505	(319)	298	(161)	(182)	323
Expected existing business contribution (reference rate)	—	—	339	339	—	—	55	55	394
Expected existing business contribution (in excess of reference rate)	—	—	577	577	—	—	314	314	891
Transfers from VIF and required capital to the free surplus	1,133	(246)	(887)	—	587	(375)	(212)	—	—
Experience variances	112	(162)	(58)	(108)	(212)	53	48	(111)	(219)
Assumption changes	—	30	(53)	(23)	—	—	(251)	(251)	(274)
Expected return on shareholders' net worth	56	113	—	169	(7)	48	—	41	210
Other operating variances	314	30	(487)	(143)	(8)	—	(104)	(112)	(255)
Operating MCEV earnings	1,226	(80)	170	1,316	41	24	(311)	(246)	1,070
Economic variances	(390)	121	1,022	753	216	(67)	(153)	(4)	749
Other non-operating variances ²	(71)	—	36	(35)	(4)	—	3	(1)	(36)
Total MCEV earnings	765	41	1,228	2,034	253	(43)	(461)	(251)	1,783
Capital & dividend flows ³	(299)	—	—	(299)	16	—	—	16	(283)
Foreign exchange variance	5	(88)	27	(56)	(6)	(69)	71	(4)	(60)
Acquired/divested business ⁴	—	(17)	149	132	—	—	1,095	1,095	1,227
Closing MCEV	1,826	6,326	5,731	13,883	252	1,463	(657)	1,058	14,941

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² Other non-operating variances relate to costs for Solvency II implementation and other restructuring exercises, as well as the impact of regulatory changes in Poland and Turkey.

³ Included within capital and dividend flows is the transfer to Life and related businesses from other segments consisting of service company profits and losses during the reported period that have emerged from the value of in-force.

Since the 'look through' into service companies includes only future profits and losses, these amounts must be eliminated from the closing embedded value.

⁴ Acquired/divested business includes the adjustment for held for sale operations, the acquisition of Pelayo Vida on 17 January 2012, and the divestiture of Czech, Hungarian, Romanian and Sri Lankan Life businesses.

F9 – Life MCEV operating earnings

The table below presents the life and pensions MCEV earnings broken down into constituent parts. The life and pensions MCEV operating earnings comprise: the value of new business written during the year; the earnings from existing business including other operating variances; and the expected investment return on the shareholders' net worth.

These components are calculated using economic assumptions as at the start of the year (in-force business) or start of the quarter or more frequently (new business) and operating (demographic and expenses) assumptions as at the end of the period.

	6 months 2013 £m	Restated 6 months 2012 £m	Full year 2012 £m
Gross of tax and non-controlling interest			
Value of new business	401	343	746
Earnings from existing business			
– expected returns at the reference rate	174	239	487
– expected returns in excess of the reference rate	405	560	1,090
– expected returns	579	799	1,577
– experience variances	(37)	(18)	(78)
– operating assumption changes	(8)	(21)	(74)
Other operating variance	160	(106)	(249)
Expected return on shareholders' net worth	106	150	284
Life and pensions operating earnings before tax	1,201	1,147	2,206
Economic variances	555	1,022	1,901
Other non-operating variances	(21)	(13)	(42)
Life and pensions earnings before tax	1,735	2,156	4,065
Tax on operating earnings	(333)	(320)	(576)
Tax on other activities	(166)	(345)	(619)
Life and pensions earnings after tax – continuing operations	1,236	1,491	2,870
Life and pensions earnings after tax – discontinued operations	—	150	(251)
Life and pensions earnings after tax	1,236	1,641	2,619

There were no separate development costs reported in these years.

Other non-operating variances relate to costs for Solvency II implementation and other restructuring exercises.

The table above presents a summarised breakdown of the life and pensions MCEV earnings on a gross of non-controlling interests basis and gross of tax with tax shown separately. The Group favours the gross presentation for consistency with the IFRS results. The table below compares the key items on the different bases as the subsequent analysis is provided predominantly on a net of tax and non-controlling interests basis as preferred by the CFO Forum Principles.

Key indicators

	6 months 2013		Restated 6 months 2012		Full year 2012	
	Net of non- controlling interests and tax £m	Gross of non- controlling interests and tax £m	Net of non- controlling interests and tax £m	Gross of non- controlling interests and tax £m	Net of non- controlling interests and tax £m	Gross of non- controlling interests and tax £m
Value of new business – continuing operations	285	401	231	343	505	746
Value of new business – discontinued operations	—	—	(90)	(138)	(182)	(280)
Total value of new business	285	401	141	205	323	466
Life and pensions operating return – continuing operations	741	1,201	691	1,147	1,316	2,206
Life and pensions operating return – discontinued operations	—	—	53	81	(246)	(378)
Total life and pensions operating return	741	1,201	744	1,228	1,070	1,828
Life and pensions earnings – continuing operations	963	1,735	1,077	2,156	2,034	4,065
Life and pensions earnings – discontinued operations	—	—	150	231	(251)	(387)
Total life and pensions earnings	963	1,735	1,227	2,387	1,783	3,678

F10 – Present value of life new business premiums

The tables below set out the present value of new business premiums (PVNBP) written by the life and related businesses, gross of tax and non-controlling interests. The PVNBP calculation is equal to total single premium sales received in the period plus the discounted value of regular premiums expected to be received over the term of the new contracts, and is expressed at the point of sale.

The premium volumes and projection assumptions used to calculate the present value of regular premiums for each product are the same as those used to calculate the value of new business, so the components of the new business margin are on a consistent basis.

The weighted average capitalisation factor (WACF) is the multiple of the annualised regular premium which gives the present value at point of sale of the regular premiums.

Gross of non-controlling interests 6 months 2013	Regular premiums £m	WACF	Present value of regular premiums £m	Single premiums £m	Present value of new business premiums £m
United Kingdom	344	4.9	1,681	2,760	4,441
Ireland	13	4.2	55	170	225
United Kingdom & Ireland	357	4.9	1,736	2,930	4,666
France	49	8.3	407	1,966	2,373
Poland	23	7.5	173	54	227
Italy	33	5.7	188	1,117	1,305
Spain	31	5.6	175	466	641
Other Europe	58	3.9	225	48	273
Europe	194	6.0	1,168	3,651	4,819
Asia	149	5.3	786	75	861
Other	—	—	—	7	7
Total life and pensions	700	5.3	3,690	6,663	10,353

Gross of non-controlling interests Restated 6 months 2012	Regular premiums £m	WACF	Present value of regular premiums £m	Single premiums £m	Present value of new business premiums £m
United Kingdom	390	5.2	2,033	3,354	5,387
Ireland	20	4.0	80	262	342
United Kingdom & Ireland	410	5.2	2,113	3,616	5,729
France	40	7.0	280	1,664	1,944
Poland	18	7.6	137	64	201
Italy	39	5.4	210	1,049	1,259
Spain	36	5.5	199	506	705
Other Europe	41	4.9	200	49	249
Europe	174	5.9	1,026	3,332	4,358
Asia	155	5.0	780	133	913
Other	—	—	—	30	30
Total life and pensions – continuing operations	739	5.3	3,919	7,111	11,030
Total life and pensions – discontinued operations¹	59	10.3	608	1,465	2,073
Total life and pensions	798	5.7	4,527	8,576	13,103

¹ Represents the results of the United States.

Gross of non-controlling interests Restated Full year 2012	Regular premiums £m	WACF	Present value of regular premiums £m	Single premiums £m	Present value of new business premiums £m
United Kingdom	771	4.9	3,793	6,617	10,410
Ireland	33	3.8	127	505	632
United Kingdom & Ireland	804	4.9	3,920	7,122	11,042
France	74	7.9	584	3,054	3,638
Poland	36	7.3	261	112	373
Italy	54	5.9	317	1,654	1,971
Spain	67	5.6	375	920	1,295
Other Europe	86	4.1	352	119	471
Europe	317	6.0	1,889	5,859	7,748
Asia	282	5.3	1,482	283	1,765
Other	—	—	—	91	91
Total life and pensions – continuing operations	1,403	5.2	7,291	13,355	20,646
Total life and pensions – discontinued operations¹	130	11.1	1,440	2,599	4,039
Total life and pensions	1,533	5.7	8,731	15,954	24,685

¹ Represents the results of the United States.

F11 – Geographical analysis of value of new business

The tables below set out the present value of new business premiums (PVNBP) written by the life and related businesses, the value of the new business and the resulting margin, firstly gross and then net of tax and non-controlling interests. The value generated by new business written during the period is the present value of the projected stream of after-tax distributable profit from that business, including expected profit between point of sale and the valuation date. It reflects the additional value to shareholders created through the activity of writing new business including the impacts of interactions between in force and new business with the exception of tax as noted in the basis of preparation. The value of new business has been calculated using economic assumption at the point of sale which has been implemented with the assumptions being taken as those appropriate to the start of each quarter. For contracts that are re-priced more frequently, weekly or monthly economic assumptions have been used. The operating assumptions are consistent with those used to determine the embedded value. The value of new business is shown after the effect of the frictional costs of holding required capital, and after the effect of the costs of residual non-hedgeable risks on the same basis as for the in-force covered business.

	Present value of new business premiums			Value of new business			New business margin		
	6 months 2013 £m	Restated 6 months 2012 £m	Full year 2012 £m	6 months 2013 £m	Restated 6 months 2012 £m	Full year 2012 £m	6 months 2013 %	Restated 6 months 2012 %	Full year 2012 %
Gross of tax and non-controlling interest									
United Kingdom	4,441	5,387	10,410	211	182	420	4.8%	3.4%	4.0%
Ireland	225	342	632	1	(6)	(8)	0.4%	(1.8)%	(1.3)%
United Kingdom & Ireland	4,666	5,729	11,042	212	176	412	4.5%	3.1%	3.7%
France	2,373	1,944	3,638	86	62	119	3.6%	3.2%	3.3%
Poland	227	201	373	21	18	35	9.3%	9.0%	9.4%
Italy	1,305	1,259	1,971	6	14	29	0.5%	1.1%	1.5%
Spain	641	705	1,295	13	21	56	2.0%	3.0%	4.3%
Other Europe	273	249	471	21	15	32	7.7%	6.0%	6.8%
Europe	4,819	4,358	7,748	147	130	271	3.1%	3.0%	3.5%
Asia	861	913	1,765	42	37	63	4.9%	4.1%	3.6%
Other	7	30	91	—	—	—	—	—	—
Total life and pensions – continuing operations	10,353	11,030	20,646	401	343	746	3.9%	3.1%	3.6%
Total life and pensions – discontinued operations¹		2,073	4,039		(138)	(280)		(6.7)%	(6.9)%
Total life and pensions	10,353	13,103	24,685	401	205	466	3.9%	1.6%	1.9%

¹ Prior period represents the results of the United States.

	Present value of new business premiums			Value of new business			New business margin		
	6 months 2013 £m	Restated 6 months 2012 £m	Full year 2012 £m	6 months 2013 £m	Restated 6 months 2012 £m	Full year 2012 £m	6 months 2013 %	Restated 6 months 2012 %	Full year 2012 %
Net of tax and non-controlling interest									
United Kingdom	4,441	5,387	10,410	162	138	319	3.6%	2.6%	3.1%
Ireland	205	256	474	1	(3)	(6)	0.5%	(1.2)%	(1.3)%
United Kingdom & Ireland	4,646	5,643	10,884	163	135	313	3.5%	2.4%	2.9%
France	1,981	1,588	2,996	50	35	67	2.5%	2.2%	2.2%
Poland	205	183	339	16	13	26	7.8%	7.1%	7.7%
Italy	546	549	841	1	4	8	0.2%	0.7%	1.0%
Spain	357	391	719	3	4	15	0.8%	1.0%	2.1%
Other Europe	273	249	470	17	11	26	6.2%	4.4%	5.5%
Europe	3,362	2,960	5,365	87	67	142	2.6%	2.3%	2.6%
Asia	860	903	1,748	35	29	50	4.1%	3.2%	2.9%
Other	7	30	91	—	—	—	—	—	—
Total life and pensions – continuing operations	8,875	9,536	18,088	285	231	505	3.2%	2.4%	2.8%
Total life and pensions – discontinued operations¹		2,073	4,039		(90)	(182)		(4.3)%	(4.5)%
Total life and pensions	8,875	11,609	22,127	285	141	323	3.2%	1.2%	1.5%

¹ Prior period represents the results of the United States.

F12 – Operating Capital Generation

Net of tax and non-controlling interest 6 months 2013	Existing business			New business				Total business	
	Transfer from VIF to net worth £m	Return on net worth £m	Impact of experience variances and assumption changes on net worth £m	Release of required capital to free surplus £m	Total existing business surplus generation £m	Impact on net worth £m	Reduction in free surplus from required capital £m	Total new business surplus generation £m	Total free surplus generation £m
United Kingdom & Ireland	177	28	119	(78)	246	(7)	24	17	263
Europe	241	30	52	120	443	(48)	(98)	(146)	297
Asia and Other	37	6	55	11	109	(24)	(11)	(35)	74
Total	455	64	226	53	798	(79)	(85)	(164)	634

Net of tax and non-controlling interest Restated 6 months 2012	Existing business			New business				Total business	
	Transfer from VIF to net worth £m	Return on net worth £m	Impact of experience variances and assumption changes on net worth £m	Release of required capital to free surplus £m	Total existing business surplus generation £m	Impact on net worth £m	Reduction in free surplus from required capital £m	Total new business surplus generation £m	Total free surplus generation £m
United Kingdom & Ireland	183	47	196	(13)	413	(70)	19	(51)	362
Europe	227	37	14	133	411	(64)	(95)	(159)	252
Asia and Other	36	7	1	10	54	(25)	(15)	(40)	14
Total – continuing operations	446	91	211	130	878	(159)	(91)	(250)	628
Total – discontinued operations¹	131	20	(148)	98	101	(41)	(158)	(199)	(98)
Total	577	111	63	228	979	(200)	(249)	(449)	530

¹ Represents the results of the United States.

Net of tax and non-controlling interest Restated Full year 2012	Existing business			New business				Total business	
	Transfer from VIF to net worth £m	Return on net worth £m	Impact of experience variances and assumption changes on net worth £m	Release of required capital to free surplus £m	Total existing business surplus generation £m	Impact on net worth £m	Reduction in free surplus from required capital £m	Total new business surplus generation £m	Total free surplus generation £m
United Kingdom & Ireland	364	85	194	67	710	(78)	41	(37)	673
Europe	451	72	72	126	721	(101)	(167)	(268)	453
Asia and Other	72	12	58	42	184	(55)	(29)	(84)	100
Total – continuing operations	887	169	324	235	1,615	(234)	(155)	(389)	1,226
Total – discontinued operations¹	212	41	(167)	274	360	(21)	(298)	(319)	41
Total	1,099	210	157	509	1,975	(255)	(453)	(708)	1,267

¹ Represents the results of the United States.

The above table includes the impact of a true-up of a prior estimate of required capital in Europe, negatively impacting Free Surplus Generation by £88 million. This is excluded from Life OCG in the “Cash” section of this report as it did not impact the actual capital generated in 2012.

F13 – Maturity profile of business

(a) Total in-force business

To show the profile of the VIF emergence, the value of VIF in the statements of financial position has been split into five-year tranches depending on the date when the profit is expected to emerge.

Net of non-controlling interest 30 June 2013 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	514	986	731	354	894	3,479
Europe	841	612	376	233	363	2,425
Asia and Other	160	143	38	5	(90)	256
Total	1,515	1,741	1,145	592	1,167	6,160

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

Net of non-controlling interest Restated 30 June 2012 £m	0-5	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	319	780	709	355	768	2,931
Europe	641	426	283	185	260	1,795
Asia and Other	202	131	44	14	(79)	312
Total – excluding United States	1,162	1,337	1,036	554	949	5,038
Total – United States	36	(525)	(361)	(154)	(307)	(1,311)
Total	1,198	812	675	400	642	3,727

Net of non-controlling interest Restated 31 December 2012 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	496	893	639	261	812	3,101
Europe	900	517	352	227	381	2,377
Asia and Other	208	137	32	11	(135)	253
Total – excluding United States	1,604	1,547	1,023	499	1,058	5,731
Total – United States	(657)	—	—	—	—	(657)
Total	947	1,547	1,023	499	1,058	5,074

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

(b) New business

To show the profile of the VIF emergence, the value of new business has been split into five-year tranches depending on the date when the profit is expected to emerge.

Net of non-controlling interest 30 June 2013 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	63	30	15	8	54	170
Europe	57	31	20	13	14	135
Asia and Other	25	17	9	6	2	59
Total	145	78	44	27	70	364

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

Net of non-controlling interest Restated 30 June 2012 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	50	45	31	22	57	205
Europe	63	30	17	10	11	131
Asia and Other	26	13	6	4	5	54
Total – continuing operations	139	88	54	36	73	390
Total – discontinued operations¹	4	(19)	(3)	(6)	(25)	(49)
Total	143	69	51	30	48	341

¹ Represents the results of the United States.

Net of non-controlling interest Restated 31 December 2012 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	85	73	50	35	148	391
Europe	112	55	35	19	21	242
Asia and Other	53	29	11	9	4	106
Total – continuing operations	250	157	96	63	173	739
Total – discontinued operations²	(161)	—	—	—	—	(161)
Total	89	157	96	63	173	578

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

² Represents the results of the United States.

F14 – Segmental analysis of life and related business embedded value

Net of non-controlling interest 30 June 2013 £m	Free surplus £m	Required Capital ¹ £m	VIF £m	Total MCEV £m
United Kingdom	907	2,674	3,005	6,586
Ireland	107	188	474	769
United Kingdom & Ireland	1,014	2,862	3,479	7,355
France ²	(2)	2,235	1,052	3,285
Poland	137	110	1,208	1,455
Italy ^{2,3}	(27)	576	(25)	524
Spain ^{2,3}	—	244	76	320
Other Europe	8	19	114	141
Europe	116	3,184	2,425	5,725
Asia	239	244	244	727
Other	40	10	12	62
Total	1,409	6,300	6,160	13,869

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² France, Italy and Spain have a positive surplus on a statutory basis.

³ Required capital in Italy and Spain reflects the current economic environment and is in excess of regulatory requirements.

Net of non-controlling interest Restated 30 June 2012 £m	Free surplus £m	Required Capital ¹ £m	VIF £m	Total MCEV £m
United Kingdom	1,093	2,797	2,496	6,386
Ireland	21	310	435	766
United Kingdom & Ireland	1,114	3,107	2,931	7,152
France ²	(199)	1,971	992	2,764
Poland	91	104	951	1,146
Italy ^{2,3}	(216)	727	(314)	197
Spain	109	219	32	360
Other Europe	28	34	134	196
Europe	(187)	3,055	1,795	4,663
Asia	146	256	297	699
Other	37	10	15	62
Total – excluding United States	1,110	6,428	5,038	12,576
Total – United States⁴	3	1,634	(1,311)	326
Total	1,113	8,062	3,727	12,902

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² France and Italy have a positive surplus on a statutory basis.

³ Required capital in Italy reflects the current economic environment and is in excess of regulatory requirements.

⁴ Aviva USA's holding company debt amounting to £738 million at 30 June 2012 has been included within non-covered business.

Net of non-controlling interest Restated 31 December 2012 £m	Free surplus £m	Required Capital ¹ £m	VIF £m	Total MCEV £m
United Kingdom	1,230	2,648	2,621	6,499
Ireland	96	246	480	822
United Kingdom & Ireland	1,326	2,894	3,101	7,321
France	80	2,106	984	3,170
Poland	161	113	1,282	1,556
Italy ^{2,3}	(42)	598	(172)	384
Spain ²	58	294	178	530
Other Europe	25	29	105	159
Europe	282	3,140	2,377	5,799
Asia	180	282	240	702
Other	38	10	13	61
Total – excluding United States	1,826	6,326	5,731	13,883
Total – United States⁴	252	1,463	(657)	1,058
Total	2,078	7,789	5,074	14,941

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² Required capital in Italy and Spain reflects the current economic environment and is in excess of regulatory requirements.

³ Italy has a positive surplus on a statutory basis.

⁴ Aviva USA's holding company debt amounting to £708 million at 31 December 2012 has been included within non-covered business.

The required capital across our life businesses varies between 100% and 222% of EU minimum or equivalent (100% to 325% at HY12; 100% to 325% at FY12). The figures have changed since FY12 given that the US is no longer included in covered business. The weighted average level of required capital for our life business expressed as a percentage of the EU minimum (or equivalent) solvency margin has decreased to 117% (HY12: 138%; FY12: 134%). These levels of required capital are used in the calculation of the Group's embedded value to evaluate the cost of locked in capital. At 30 June 2013 the aggregate regulatory requirements based on the EU minimum test amounted to £5.4 billion (HY12: £5.8 billion; FY12: £5.8 billion). At this date, the actual net worth held in our long-term business, was £7.7 billion (HY12: £9.1 billion; FY12: £9.9 billion) which represents 143% (HY12: 157%; FY12: 170%) of these minimum requirements.

F15 – Risk allowance within present value of in-force (VIF)

Within the VIF in the tables, there are additional allowances for risks not included within the basic present value of future profits calculation.

Net of non-controlling interest 30 June 2013 £m	PVFP £m	Frictional costs £m	Non- hedgeable risks £m	Time value of financial options and guarantees £m	VIF £m
United Kingdom	3,710	(240)	(432)	(33)	3,005
Ireland	503	(6)	(23)	—	474
United Kingdom & Ireland	4,213	(246)	(455)	(33)	3,479
France	2,181	(136)	(237)	(756)	1,052
Poland	1,454	(10)	(226)	(10)	1,208
Italy	38	(11)	(30)	(22)	(25)
Spain	129	(10)	(27)	(16)	76
Other Europe	117	(1)	(2)	—	114
Europe	3,919	(168)	(522)	(804)	2,425
Asia	406	(31)	(84)	(47)	244
Other	13	—	(1)	—	12
Total	8,551	(445)	(1,062)	(884)	6,160

The removal of the United States from covered business as set out in F1 Basis of Preparation has reduced the total risk allowances. Excluding the United States, relative to FY12:

- Frictional costs have become more negative by £39 million due to economic movements in France.
- The allowance for non-hedgeable risks has become less negative by £32 million, primarily in Poland, due to increases in risk-free rates, and Spain, due to the sale of Aseval, offset by results in France caused by exchange rate movements.
- The Time Value of Options and Guarantees has become less negative by £20 million primarily due to management actions in France and Italy and favourable economics, offset by exchange rate impacts.

Net of non-controlling interest Restated 30 June 2012 £m	PVFP £m	Frictional costs £m	Non- hedgeable risks £m	Time value of financial options and guarantees £m	VIF £m
United Kingdom	3,176	(238)	(386)	(56)	2,496
Ireland	473	(10)	(27)	(1)	435
United Kingdom & Ireland	3,649	(248)	(413)	(57)	2,931
France	1,838	(115)	(190)	(541)	992
Poland	1,114	(11)	(149)	(3)	951
Italy	(246)	(1)	(17)	(50)	(314)
Spain	97	(9)	(43)	(13)	32
Other Europe	145	(2)	(7)	(2)	134
Europe	2,948	(138)	(406)	(609)	1,795
Asia	448	(27)	(72)	(52)	297
Other	16	—	(1)	—	15
Total – excluding United States	7,061	(413)	(892)	(718)	5,038
Total – United States	(567)	(145)	(70)	(529)	(1,311)
Total	6,494	(558)	(962)	(1,247)	3,727

Net of non-controlling interest 31 December 2012 £m	PVFP £m	Frictional costs £m	Non- hedgeable risks £m	Time value of financial options and guarantees £m	VIF £m
United Kingdom	3,334	(241)	(436)	(36)	2,621
Ireland	512	(8)	(24)	—	480
United Kingdom & Ireland	3,846	(249)	(460)	(36)	3,101
France	2,050	(105)	(225)	(736)	984
Poland	1,545	(8)	(244)	(11)	1,282
Italy	(96)	(7)	(34)	(35)	(172)
Spain	241	(5)	(39)	(19)	178
Other Europe	108	(1)	(2)	—	105
Europe	3,848	(126)	(544)	(801)	2,377
Asia	427	(31)	(89)	(67)	240
Other	14	—	(1)	—	13
Total – excluding United States	8,135	(406)	(1,094)	(904)	5,731
Total – United States	(50)	(141)	(158)	(308)	(657)
Total	8,085	(547)	(1,252)	(1,212)	5,074

F16 – Implied discount rates (IDR)

In the valuation of a block of business, the IDR is the rate of discount such that a traditional embedded value calculation for the covered business equates to the MCEV.

The cash flows projected are the expected future cash flows including expected investment cash flows from equities, bonds and properties earning a risk premium in excess of risk free, statutory reserves and required capital. The risk premiums used are consistent with those used in the expected existing business contribution within operating earnings. As the risk premiums are positive, a discount rate higher than risk-free is required to give a value equal to the market-consistent embedded value.

Average derived risk discount rates are shown below for the embedded value.

	30 June 2013 %	Restated 30 June 2012 %	31 December 2012 %
United Kingdom	6.9%	8.5%	7.2%
Ireland ¹	1.6%	2.6%	1.9%
United Kingdom & Ireland	6.3%	7.6%	6.4%
France	7.0%	6.8%	6.7%
Poland	5.7%	6.4%	5.2%
Italy ¹	8.9%	32.0%	13.4%
Spain ¹	11.3%	16.5%	12.9%
Other Europe ¹	6.3%	6.4%	6.5%
Europe	7.4%	11.5%	8.0%
Asia ¹	5.4%	4.5%	5.6%
Other	—	—	—
Total – excluding United States¹	6.8%	9.3%	7.2%
Total – United States^{1,2}		n/a	n/a
Total	6.8%	n/a	n/a

¹ IDRs have been calculated excluding held for sale operations, reflecting that they are stated at expected fair value less cost to sell.

² Where there is significant difference in projected real world and risk neutral profits and the value of the in force business plus required capital is negative or close to zero, the IDR is not well defined and consequently IDR is not meaningful.

F17 – Summary of non-controlling interest in life and related businesses' MCEV results

30 June 2013	Ireland £m	France £m	Spain £m	Italy £m	Poland £m	Asia £m	Total £m	Share- holders' Interest £m	Group £m
Value of new business after tax	—	6	7	3	1	—	17	285	302
Life MCEV operating earnings after tax	—	14	11	95	7	—	127	741	868
Life MCEV earnings/(loss) after tax	—	6	93	177	(3)	—	273	963	1,236
Closing covered businesses' embedded value	—	302	295	547	199	3	1,346	13,869	15,215

Restated 30 June 2012	Ireland £m	France £m	Spain £m	Italy £m	Poland £m	Asia £m	Total £m	Share- holders' Interest £m	Group £m
Value of new business after tax	(1)	6	10	6	1	1	23	141	164
Life MCEV operating (loss)/earnings after tax	(1)	7	34	88	7	2	137	744	881
Life MCEV earnings/(loss) after tax	1	18	(20)	405	8	2	414	1,227	1,641
Closing covered businesses' embedded value	256	209	346	165	156	20	1,152	12,902	14,054

Full year 2012	Ireland £m	France £m	Spain £m	Italy £m	Poland £m	Asia £m	Total £m	Share- holders' Interest £m	Group £m
Value of new business after tax	(2)	12	24	10	3	1	48	323	371
Life MCEV operating earnings after tax	13	36	79	154	30	2	314	1,070	1,384
Life MCEV earnings after tax	15	75	60	626	59	1	836	1,783	2,619
Closing covered businesses' embedded value	272	280	406	381	214	3	1,556	14,941	16,497

Non-controlling interest in life and related businesses is not impacted by the treatment of held for sale operations. There are no non-controlling interests in the United Kingdom or United States.

F18 – Principal assumptions

(a) Economic assumptions – Deterministic calculations

Economic assumptions are derived actively, based on market yields on risk-free fixed interest assets at the end of each reporting period.

In setting the risk-free rate we have, wherever possible, used the mid-price swap yield curve for an AA-rated bank. The curve is extrapolated beyond the last available market data point to an ultimate forward rate using the Nelson-Siegel functional form if necessary. For markets in which there is no reliable swap yield curve, the relevant government bond yields are used. For certain business, swap rates are adjusted for a 'liquidity premium' in deriving the risk free rates, and these adjustments are shown below the reference rate table.

Required capital is shown as a multiple of the EU statutory minimum solvency margin or equivalent.

The principal economic assumptions used are as follows:

Reference rate (spot, swap rates) and expense inflation

United Kingdom	30 June 2013	30 June 2012	Full Year 2012	Full Year 2011
Reference rate				
1 year	0.6%	0.9%	0.6%	1.2%
5 years	1.6%	1.3%	1.0%	1.6%
10 years	2.7%	2.2%	1.9%	2.3%
15 years	3.2%	2.7%	2.6%	2.8%
20 years	3.4%	3.0%	2.9%	3.0%
Expense inflation	3.1%	2.6%	2.8%	2.8%

Eurozone	30 June 2013	Restated ¹ 30 June 2012	Full Year 2012	Full year 2011
Reference rate				
1 year	0.4%	0.8%	0.3%	1.4%
5 years	1.2%	1.3%	0.8%	1.7%
10 years	2.1%	2.0%	1.6%	2.4%
15 years	2.5%	2.3%	2.1%	2.8%
20 years	2.6%	2.4%	2.3%	2.8%
Expense inflation ¹	2.5%	2.5%	2.5%	2.5%

¹ Based on France, the largest Eurozone business. 30 June 2012 expense inflation restated from overall Eurozone rate.

Poland	30 June 2013	30 June 2012	Full Year 2012	Full year 2011
Reference rate				
1 year	2.8%	5.0%	3.4%	4.9%
5 years	3.8%	4.6%	3.4%	4.8%
10 years	4.2%	4.7%	3.5%	5.0%
15 years	4.2%	4.4%	3.4%	4.7%
20 years	4.1%	4.1%	3.2%	4.3%
Expense inflation	2.6%	3.3%	2.1%	2.9%

United States	30 June 2013	30 June 2012	Full Year 2012	Full year 2011
Reference rate				
1 year	n/a	0.5%	0.3%	0.7%
5 years	n/a	1.0%	0.9%	1.2%
10 years	n/a	1.8%	1.9%	2.1%
15 years	n/a	2.3%	2.4%	2.5%
20 years	n/a	2.5%	2.7%	2.6%
Expense inflation	n/a	2.0%	2.0%	2.0%

For service companies, expense inflation relates to the underlying expenses rather than the fees charged to the life company.

The following adjustments are made to the swap rate for immediate annuity type contracts and for all contracts for Aviva USA.

The risk-free rate is taken as the swap yield curve for the currency of the liability, adjusted by adding the following to each swap rate:

	New business						Embedded value		
	2Q 2013	1Q 2013	4Q 2012	3Q 2012	2Q 2012	1Q 2012	30 June 2013	30 June 2012	Full Year 2012
UK immediate annuities	1.21%	1.24%	1.19%	1.49%	1.46%	1.34%	1.22%	1.43%	1.30%
UK bulk purchase annuities	1.21%	1.24%	1.19%	1.49%	1.46%	1.34%	1.22%	1.43%	1.30%
France	n/a	n/a	n/a	n/a	n/a	n/a	0.38%	0.87%	0.44%
Spain	0.23%	0.17%	0.13%	0.09%	0.28%	0.35%	0.25%	0.64%	0.30%
US immediate annuities	n/a	n/a	0.83%	0.95%	1.00%	1.26%	n/a	1.17%	0.91%
US deferred annuities and all other contracts	n/a	n/a	0.70%	0.81%	0.84%	1.07%	n/a	0.99%	0.77%

The approach to estimating the market level of liquidity premium in corporate bond assets is consistent with the formula structure proposed by CFO/CRO Forum and adopted in the Solvency II Fifth Quantitative Impact Study (QIS5).

F18 – Principal assumptions continued**(a) Economic assumptions – Deterministic calculations continued**

The formula is:

United Kingdom/Europe:	50% of (iBoxx Corporate bond spread – 40bp)
USA:	60% of (iBoxx Corporate bond spread – 40bp)

For assets valued on a marked to model basis (e.g., commercial mortgages), the liquidity premium is consistent with the underlying model valuation.

Adjustments are made where liabilities are not fully backed by assets earning a liquidity premium and for contracts that are exposed to some lapse risk (15% reduction to the market level liquidity premium). There has been no change to the types of contracts to which a liquidity premium is applied, and it is applied to all components of the MCEV with the exception of the adjustment for the “look-through” into service company expenses.

Risk premium – used for operating profit, Implied Discount Rates (IDR), Internal Rates of Return (IRR) and payback period

For life and pensions operating earnings, Aviva uses normalised investment returns. The normalised investment returns are expressed as a swap rate based on the typical duration of the assets held plus an asset risk premium. More detail is given in note F1 – Basis of preparation.

The use of asset risk premia only impacts operating earnings as expected returns reflect management’s long-term expectations of asset returns in excess of the reference rate from investing in different asset classes. This assumption does not impact the embedded value or value of new business as asset risk premia are not recognised until earned. The asset risk premia set out in the table below are added to the ten year swap rate to calculate expected returns.

All territories	30 June 2013	30 June 2012	Full Year 2012	Full Year 2011
Equity risk premium	3.5%	3.5%	3.5%	3.5%
Property risk premium	2.0%	2.0%	2.0%	2.0%

Future returns on fixed interest investments are calculated from prospective yields less an adjustment for credit risk.

Required capital and tax

	Tax rates ¹				Required capital (% EU minimum or equivalent)	
	30 June 2013	30 June 2012	Full Year 2012	Full Year 2011	30 June 2012	Full Year 2012
United Kingdom ²	20.0%	23.0%	23.0%	25.0%	100%/200%	100%/200%
Ireland ³	12.5%	12.5%	12.5%	12.5%	180%	174%/180%
France	34.4%	34.4%	34.4%	34.4%	107.5%	107.5%
United States	n/a	35.0%	35.0%	35.0%	n/a	325%
Spain ⁴	30.0%	30.0%	30.0%	30.0%	197%	134%
Italy ⁵	34.3%	34.3%	34.3%	34.3%	222%	305%
Poland	19.0%	19.0%	19.0%	19.0%	125.5%	125.5%

¹ Current tax legislation and rates have been assumed to continue unaltered except where changes in future tax rates have been substantively enacted with the exception of the United Kingdom as set out below.

² The required capital in the United Kingdom under MCEV is 100% for unit-linked and other non-participating business and annuity business with 200% for BPA business. In addition, the reattribution of the inherited estate has led to additional capital being locked in to support the with-profit business, and this has been included within required capital.

³ Required capital in Ireland for comparative periods under MCEV is 174% for bancassurance and 180% for retail business.

⁴ This is the aggregate required capital for in force business in Spain. The increase in 2012 and 2013 reflects the current economic environment. New business metrics continue to use management target levels of required capital (119%-138% of EU minimum), which better reflects the capital requirements of the new business.

⁵ This is the aggregate required capital level for in force business in Italy and reflects the current economic environment. New business metrics continue to use management target levels of required capital (115%-120% of EU minimum), which better reflects the capital requirements of the new business.

Legislation has been substantively enacted in July 2013 to reduce the main rate of UK Corporation tax to 21% from 1 April 2014, with a further reduction to 20% from 1 April 2015. This reduction to 20% is considered a known future change for MCEV purposes and has been reflected in the Group’s MCEV net assets as at 30 June 2013.

Other economic assumptions

Required capital relating to with-profit business is generally assumed to be covered by the surplus within the with-profit funds and no effect has been attributed to shareholders. Where the fund is insufficient and additional shareholder support is required, this is included within required capital, including the RIEESA in the UK. Bonus rates on participating business have been set at levels consistent with the economic assumptions. The distribution of profit between policyholders and shareholders within the with-profit funds assumes that the shareholder interest in conventional with-profit business in the UK and Ireland continues at the current rate of one-ninth of the cost of bonus.

F18 – Principal assumptions continued

(b) Economic assumptions – Stochastic calculations

The calculation of time value of options and guarantees allows for expected management and policyholder actions in response to varying future investment conditions. The management actions modelled include changes to asset mix, bonus rates and rates of interest and other guarantees granted to policyholders. Modelled policyholder actions are described under 'Non-economic assumptions'.

Model – United Kingdom and United States

Swap rates are generated by a model, the LIBOR Market Model Plus (LMM+), which projects a full swap curve at monthly intervals.

Forward rates are assumed to have a distribution that lies between the log-normal and normal distributions. Although this no longer guarantees non-negative interest rates, it maintains interest rates within a more plausible range than the standard Libor Market Model, and gives a better fit to certain swaption volatility surfaces. The model is calibrated to volatilities for swaptions for ten year swaps for a range of option terms and strike rates. Swaption volatilities are taken from SuperDerivatives. In the case of the United States, an adjustment is made to the starting reference rate as described above. After making this adjustment the interest rate model is calibrated to the swaption implied volatilities supplied by SuperDerivatives. Tests have been performed to ensure that sufficient scenarios have been used that the result converges to the stochastic value of the business being valued.

The total annual return on equities is calculated as the return on one-year swaps plus an excess return. For the UK, a stochastic volatility jump diffusion model is used, which allows for varying levels of volatility over time and across strike prices. Option volatilities are taken from Markit. For the US, this excess return is modelled using a log-normal model where volatility varies by time horizon. This allows the model to capture the term structure of implied volatilities. The model is calibrated to at-the-money options of a variety of terms.

The model also generates property total returns and real yield curves, which are significant asset classes for the UK only. In the absence of liquid market data, the property volatilities are based on historic data.

Assumptions for correlations between asset classes have been set based on historic data.

Model – Europe and Asia

Swap rates are generated by a model, the LIBOR Market Model (LMM) that projects a full swap curve at monthly intervals. Forward rates are assumed to have a log-normal distribution which guarantees non-negative interest rates. The model is calibrated to at-the-money swaptions of a variety of terms and tenors. Swaption volatilities are taken from SuperDerivatives. Tests have been performed to ensure that sufficient scenarios have been used that the result converges to the stochastic value of the business being valued.

The total annual return on equities is calculated as the return on one-year swaps plus an excess return. This excess return is generally modelled using a log-normal model where volatility varies by time horizon. This allows the model to capture the term structure of implied volatilities. The model is calibrated to at-the-money options of a variety of terms. Option volatilities are taken from Markit.

Assumptions for correlations between asset classes have been set based on historic data.

Asset classes

The significant asset classes for UK participating business are equities, property and long-term fixed rate bonds. The most significant assumptions are the distribution of future long-term interest rates (nominal and real) and swaption implied volatilities.

For many businesses, including France and the US, the most important assets are fixed rate bonds of various durations.

Summary statistics

Swaption implied volatilities

The implied volatility is that determined by Black-Scholes' formula to reproduce the market price of the option. The following table sets out the swaption implied volatilities.

Option length	30 June 2013 Swap length				30 June 2012 Swap length				31 December 2012 Swap length			
	10 years	15 years	20 years	25 years	10 years	15 years	20 years	25 years	10 years	15 years	20 years	25 years
UK sterling												
10 years	17.8%	17.4%	17.0%	16.7%	17.7%	16.9%	16.2%	15.7%	17.1%	16.4%	16.0%	15.7%
15 years	16.3%	15.9%	15.4%	15.1%	16.0%	15.4%	14.5%	14.0%	15.2%	14.8%	14.2%	13.9%
20 years	15.9%	15.3%	14.6%	14.2%	15.5%	14.5%	13.6%	13.2%	14.8%	14.1%	13.4%	13.1%
25 years	15.8%	15.1%	14.5%	14.0%	15.2%	14.3%	13.5%	13.1%	14.9%	14.1%	13.5%	13.1%
Euro												
10 years	23.8%	23.1%	22.4%	21.9%	29.7%	28.8%	28.4%	27.9%	24.6%	24.0%	23.5%	23.1%
15 years	24.8%	23.4%	21.7%	20.9%	32.7%	30.0%	28.0%	26.8%	25.5%	24.2%	22.7%	21.8%
20 years	24.7%	22.0%	19.6%	18.6%	31.7%	27.9%	25.4%	24.3%	25.7%	23.0%	20.9%	20.1%
25 years	23.0%	19.8%	18.2%	17.1%	29.2%	24.9%	22.9%	21.8%	23.6%	20.5%	18.8%	18.2%
US dollar												
10 years	n/a	n/a	n/a	n/a	27.2%	25.9%	25.4%	25.6%	23.0%	21.6%	21.2%	21.5%
15 years	n/a	n/a	n/a	n/a	26.1%	24.4%	24.0%	24.3%	21.9%	20.1%	20.1%	20.8%
20 years	n/a	n/a	n/a	n/a	24.0%	22.5%	22.0%	22.3%	20.4%	19.0%	18.8%	19.4%
25 years	n/a	n/a	n/a	n/a	24.0%	23.1%	23.9%	24.1%	20.4%	20.0%	20.4%	20.9%

F18 – Principal assumptions continued

Equity implied volatilities

The implied volatility is that determined by the Black-Scholes formula to reproduce the market price of the option. The following table sets out the equity implied volatilities.

Option length	30 June 2013					
	UK	Ireland	France	US	Spain	Italy
5 years	21.7%	22.5%	22.5%	n/a	26.3%	22.5%
10 years	25.0%	23.1%	23.1%	n/a	27.0%	23.1%
15 years	26.9%	23.4%	23.4%	n/a	27.2%	23.4%

Option length	30 June 2012					
	UK	Ireland	France	US	Spain	Italy
5 years	25.8%	25.7%	25.7%	26.6%	32.8%	25.7%
10 years	27.2%	25.8%	25.8%	29.5%	32.6%	25.8%
15 years	27.6%	27.1%	27.1%	30.5%	33.7%	27.1%

Option length	31 December 2012					
	UK	Ireland	France	US	Spain	Italy
5 years	23.4%	24.6%	24.6%	23.9%	27.4%	24.6%
10 years	26.3%	24.7%	24.7%	26.6%	28.0%	24.7%
15 years	26.8%	25.0%	25.0%	27.7%	28.2%	25.0%

Property implied volatilities

Best estimate levels of volatility have been used in the absence of meaningful option prices from which implied levels of volatility can be derived.

For the UK, model property implied volatility is 15% for 30 June 2013 (30 June 2012: 15%; 31 December 2012: 15%).

(c) Non-economic assumptions

Demographic assumptions

Assumed future mortality, morbidity and lapse rates have been derived from an analysis of Aviva's recent operating experience with a view to giving a best estimate of future experience. We have anticipated future changes in experience where that is appropriate, for example we have allowed for improvements in future policyholder longevity.

We have set the assumptions based on a best estimate of shareholder outcomes. In particular, where the policyholder behaviour varies with economic experience, we have set assumptions which are dynamic, that is, vary depending on the economic assumptions.

For example, surrender and option take up rate assumptions that vary according to the investment scenario under consideration have been used in the calculation of the time value of options and guarantees, based on our assessment of likely policyholder behaviour in different investment scenarios.

Additionally, where demographic experience is not driven by economic scenarios but is asymmetric on a stand-alone basis, the best estimate assumption considers the weighted-average expected experience, not simply the median or most likely outcome.

Notwithstanding that certain operations have been sold, the Aviva Ireland and Aviva Spain demographic and expense assumptions have continued to be set assuming the businesses do not incur loss of economies of scale, in advance of the annual review.

In 2010, a test case was taken to the European Court of Justice to rule on the current law and practice whereby insurers may take into account a person's gender in the assessment of risk and consequently the pricing of insurance products. The ruling was issued on 1 March 2011 and required gender equality for pricing from 21 December 2012. The impact of the ruling on the Group's MCEV net assets in our UK and European businesses is not considered to be material.

Expense assumptions

Management expenses and operating expenses of holding companies attributed to life and related businesses have been included in the MCEV calculations and split between expenses relating to the acquisition of new business, the maintenance of business in-force and project expenses. Future expense assumptions include an allowance for maintenance expenses and a proportion of recurring project expenses. Certain expenses of an exceptional nature, when they occur, are identified separately and are generally charged as incurred. No future productivity gains have been anticipated.

Where subsidiary companies provide administration, investment management or other services to our life businesses, the value of profits or losses arising from these services have been included in the embedded value and value of new business.

Poland Pensions potential legislation change

On 26 June 2013, the Polish ministers of Finance and Labour announced the outcome of the review of the Pillar II Pensions system (OFE), presenting three preferred options. An initial consultation period of 30 days has been announced, following which proposed legislation would be presented to Parliament. Finally, Presidential approval is required. It is expected that this process will complete in the second half of 2013 but the eventual outcome is uncertain. The expected outcome of each of the options announced is to substantially reduce the value in force of the Poland Pensions business, which is currently around £500 million. However the range of potential outcomes and the related level of uncertainty means that it is currently not possible to produce a reliable estimate of the impact.

F18 – Principal assumptions continued

Non-hedgeable risk

For the balance sheet and operating profit, a charge of 3.6% (HY 2012: 3.3%; FY 2012: 3.6%) has been applied to the group-diversified capital required on a 1-in-200 one-year basis over the remaining lifetime of in-force business. The charge is set so as to give an aggregate allowance that is in excess of the expected operational risk costs arising from the in-force covered business over its remaining lifetime. The increase in the charge since HY 2012 results from a reassessment of the group diversification benefit.

The capital levels used are projected to be sufficient to cover non-hedgeable risks at the 99.5% confidence level one-year after the valuation date. The capital is equal to the capital from the ICA results for those risks considered including allowance for management actions consistent with the base MCEV. Diversification benefits are included between non-hedgeable risks of the covered business. No diversification benefit is assumed with hedgeable risks of the covered business or with non-covered business in general. The capital has been projected as running off over the remaining life of the in-force portfolio in line with the drivers of the capital requirement.

In addition to the operational risk allowance, financial non-hedgeable risks and other product level asymmetries have been allowed for. These allowances are not material as significant financial non-hedgeable risks and product level asymmetries are either modelled explicitly and included in the TVOG or are included in the PVFP through the use of appropriate best estimate assumptions.

Other

It has been assumed that there will be no changes to the methods and bases used to calculate the statutory technical provisions and current surrender values, except where driven by varying future investment conditions under stochastic economic scenarios.

(d) Held for sale operations

Certain life covered operations are classified as held for sale, consistent with the IFRS classification.

US long term business

On 21 December 2012 the Group announced that it had agreed to sell the US life operations, consisting of Aviva Life and Annuity Company and the associated internal asset management operations of Aviva Investors North America, Inc, to Athene Holding Ltd for consideration of £1.0 billion including the shareholder loan (£1.1 billion including repayment of external loan) and these operations have been classified as held for sale. There is uncertainty in the ultimate consideration which depends on the development of statutory surplus between the announcement of sale and ultimate completion date. The transaction is expected to complete in 2013. Following classification as held for sale, US Life segment was remeasured to fair value less costs to sell resulting in an increase to the closing MCEV at 31 December 2012 of £1,095 million, and from 1 January 2013 is no longer included within the covered business. Subsequent remeasurement has changed the company value on the Group MCEV balance sheet from £367 million to £523 million. Please refer to note B4 for details of how this remeasurement is recognised in the income statement and in other comprehensive income.

Spanish long-term business – Aseval

On 18 December 2012 Aviva reached a settlement with Bankia S.A. ("Bankia") to transfer the Group's entire holding in Aseval Aseguradora Valenciana, Sociedad Anónima de Seguros y Reaseguros ("Aseval"), a Spanish life assurance company, to Bankia and Aseval was classified as held for sale. Following classification as held for sale, Aseval, included within the 'Europe' operating segment, was remeasured to fair value less costs to sell resulting in an increase to the closing MCEV at 31 December 2012 of £127 million. The transfer completed on 24 April 2013 with cash consideration of £502 million and profit on disposal of £39 million.

Irish long-term business – Ark Life

Our Irish long-term business is carried out through a subsidiary, Aviva Life Holdings Ireland Limited ("ALHI"), which is 75% owned by Aviva and 25% owned by Allied Irish Bank ("AIB"). ALHI holds four subsidiaries, one of which is Ark Life Assurance Company Limited ("Ark Life") which carries out bancassurance business via a distribution agreement with AIB. The original distribution agreement was renewable in 2011 but, on 15 December 2011, AIB notified the Group that they did not wish to renew it and the existing shareholders' agreement governing ALHI was terminated.

The termination of this agreement triggered the ability for both parties to exercise put and call options that will result in the unwind of the original structure such that the Ark Life business returns 100% to AIB and the Group will purchase the 25% minority stake in ALHI. The formal exercise of these options was approved on 17 January 2012 and, as a result, the Ark Life business became held for sale on that date. Following classification as held for sale, Ireland, included within the 'United Kingdom & Ireland' operating segment, was remeasured to fair value less costs to sell resulting in an increase to the closing MCEV at 31 December 2012 of £20 million. The transaction completed on 8 March 2013 with cash consideration of £117 million and profit on disposal of £90 million.

Malaysian long-term business

During 2012, the Group's Malaysian joint ventures, CIMB Aviva Assurance Berhad and CIMB Aviva Takaful Berhad, were classified as held for sale following the decision of management to seek to dispose of the business. On 17 January 2013 agreement was reached to sell Aviva's interests in these businesses to Sun Life Assurance Company of Canada. Following classification as held for sale, these businesses, included within the 'Asia' operating segment, were remeasured to fair value less costs to sell resulting in an increase to the closing MCEV at 31 December 2012 of £28 million. The transaction completed on 12 April 2013 with cash consideration of £153 million and profit on disposal of £6 million.

Italian long – term business – Eurovita

During the period the Italian long-term business Eurovita Assicurazioni S.p.A ("Eurovita") was classified as held for sale, as a result of management determining that the value of this business will principally be recovered through sale. Following classification as held for sale, Eurovita, included within the "Europe" operating segment, was remeasured to fair value less cost to sell resulting in an increase to the closing MCEV at 30 June 2013 of £48 million.

F18 – Principal assumptions continued

Other held for sale operations

During the year the Group entered into negotiations to dispose of Aviva Russia. On 27 February 2013 the Group announced the sale of the business to Blagosostoyanie. This business is included in the consolidated statement of financial position at 31 December 2012 at its closing MCEV. The transaction completed on 8 April 2013 for a net consideration of £30 million and a loss on disposal of £2 million.

The sale of our Romania pensions business, which was classified as held for sale in 2012, completed on 7 May 2013, with a profit on disposal of £1 million. This business is included in the consolidated statement of financial position at 31 December 2012 at its closing MCEV.

During 2010, the Group's Taiwan joint venture, First-Aviva Life Insurance Co., Ltd., was classified as held for sale following the decision of management to seek to dispose of the business. A sale of this business was not completed in 2012 and management have reviewed its classification as held for sale and determined that the classification remains appropriate. The disposal is expected to be completed within 12 months of the balance sheet date. As the expected sale proceeds are not known, this business is included in the consolidated statement of financial position at its closing MCEV.

(e) Other assumptions

Valuation of debt

Borrowings in the MCEV consolidated statement of financial position are valued on an IFRS basis, consistent with the primary financial statements. At 30 June 2013 the market value of the Group's external debt, subordinated debt, preference shares including General Accident plc preference shares of £250 million (classified as non-controlling interests) and direct capital instrument was £7,499 million (30 June 2012: £5,901 million; 31 December 2012: £7,260 million).

	30 June 2013 £m	30 June 2012 £m	31 December 2012 £m
Borrowings per summarised consolidated statement of financial position – MCEV basis	8,254	8,112	8,179
Add: Amount included in held for sale	212	—	145
Less: Securitised mortgage funding	(1,284)	(1,209)	(1,332)
Borrowings excluding non-recourse funding – MCEV basis	7,182	6,903	6,992
Less: Operational financing by businesses	(1,721)	(1,861)	(1,853)
External debt and subordinated debt – MCEV basis	5,461	5,042	5,139
Add: Preference shares (including General Accident plc), direct capital instrument and fixed rate tier 1 notes	1,832	1,832	1,832
External debt, subordinated debt, preference shares, direct capital instrument and fixed tier 1 notes – MCEV basis	7,293	6,874	6,971
Effect of marking these instruments to market	206	(973)	289
Market value of external debt, subordinated debt, preference shares, direct capital instrument and fixed rate tier 1 notes	7,499	5,901	7,260

Exchange rates

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

	30 June 2013	30 June 2012	31 December 2012
Eurozone			
– Average rate (€1 equals)	£0.85	£0.82	£0.81
– Period end rate (€1 equals)	£0.86	£0.81	£0.81
United States			
– Average rate (\$US1 equals)	£0.65	£0.63	£0.63
– Period end rate (\$US1 equals)	£0.66	£0.64	£0.62
Poland			
– Average rate (zł1 equals)	£0.20	£0.19	£0.19
– Period end rate (zł1 equals)	£0.20	£0.19	£0.20

F19 – Sensitivity analysis

(a) Economic assumptions

The following tables show the sensitivity of the embedded value and the value of new business to:

- 10 basis point increase in the liquidity premium adjustment, where applicable;
- one percentage point increase and decrease in the risk-free rate with a floor of 0%, including all consequential changes (including assumed investment returns for all asset classes, market values of fixed interest assets, risk discount rates);
- 10% increase and decrease in market values of equity and property assets;
- 25% multiplicative increase in equity, property and swaption volatilities;
- 50 basis point increase and decrease in credit spreads with no change to liquidity premium; and
- decrease in the level of required capital to 100% EU minimum (or equivalent).

In each sensitivity calculation, all other assumptions remain unchanged except where they are directly affected by the revised economic conditions. For example, future bonus rates are automatically adjusted to reflect sensitivity changes to future investment returns. Some of the sensitivity scenarios may have consequential effects on valuation bases, where the basis for certain blocks of business is actively updated to reflect current economic circumstances. Consequential valuation impacts on the sensitivities are allowed for where an active valuation basis is used. Where businesses have a target asset mix, the portfolio is re-balanced after a significant market movement otherwise no re-balancing is assumed.

For new business, the sensitivities reflect the impact of a change immediately after inception of the policy.

In general, the magnitude of the sensitivities will reflect the size of the embedded values, though this will vary as the sensitivities have different impacts on the different components of the embedded value. In addition, other factors can have a material impact, such as the nature of the options and guarantees, as well as the types of investments held.

The credit spread sensitivities assume that the change relates to credit risk and not liquidity risk; in practice, credit spread movements may be partially offset due to changes in liquidity risk. Own sovereign debt is excluded from credit spread sensitivities.

Sensitivities will also vary according to the current economic assumptions, mainly due to the impact of changes to both the intrinsic cost and time value of options and guarantees. Options and guarantees are the main reason for the asymmetry of the sensitivities where the guarantee impacts to different extents under the different scenarios.

No sensitivities have been included for held for sale operations, reflecting that these operations are stated at expected fair value less cost to sell.

Life and related business embedded value

30 June 2013 Embedded value (net of non-controlling interest)	As reported in F14 £m	10bp increase in adjustment to risk-free rates £m	Interest rates		Swaption implied volatilities 25% increase £m
			1% increase £m	1% decrease £m	
United Kingdom & Ireland	7,355	250	(385)	410	—
France	3,285	5	95	(175)	(135)
Poland, Italy, Spain and Other Europe	2,440	5	(100)	105	—
Asia and Other	789	—	115	(235)	(5)
Total	13,869	260	(275)	105	(140)

30 June 2013 Embedded value (net of non-controlling interest)	Equity/Property						
	Market Values				Credit Spread		EU minimum capital or equivalent £m
	As reported in F14 £m	10% increase £m	10% decrease £m	Volatility 25% increase £m	50bps increase £m	50bps decrease £m	
United Kingdom & Ireland	7,355	225	(250)	(175)	(1,090)	1,190	—
France	3,285	205	(215)	(145)	(80)	80	15
Poland, Italy, Spain and Other Europe	2,440	20	(20)	(5)	(25)	25	5
Asia and Other	789	10	(10)	—	(20)	20	10
Total	13,869	460	(495)	(325)	(1,215)	1,315	30

F19 – Sensitivity analysis continued

New business

30 June 2013 Value of new business (net of tax and non-controlling interest)	As reported in F11 £m	10bp increase in adjustment to risk-free rates £m	Interest rates		Swaption implied volatilities 25% increase £m
			1% increase £m	1% decrease £m	
United Kingdom & Ireland	163	7	(3)	5	—
France	50	—	4	(9)	(3)
Poland, Italy, Spain and Other Europe	37	—	(2)	2	—
Asia and Other	35	—	7	(10)	—
Total	285	7	6	(12)	(3)

		Equity/Property					
		Market Values				Credit Spread	
30 June 2013	As reported			Volatility			EU
Value of new business	in F11	10%	10%	25%	50bps	50bps	minimum
(net of tax and non-controlling interest)	£m	increase	decrease	increase	increase	decrease	capital or
		£m	£m	£m	£m	£m	equivalent
							£m
United Kingdom & Ireland	163	—	—	—	(40)	45	—
France	50	11	(11)	(2)	(1)	1	1
Poland, Italy, Spain and Other Europe	37	—	—	—	—	—	—
Asia and Other	35	—	—	—	—	—	1
Total	285	11	(11)	(2)	(41)	46	2

F19 – Sensitivity analysis continued

(b) Non-economic assumptions

The following tables below show the sensitivity of the embedded value and the value of new business to the following changes in non-economic assumptions:

- 10% decrease in maintenance expenses (a 10% sensitivity on a base expense assumption of £10 pa would represent an expense assumption of £9 pa). Where there is a “look through” into service company expenses the fee charged by the service company is unchanged while the underlying expense decreases;
- 10% decrease in lapse rates (a 10% sensitivity on a base assumption of 5% pa would represent a lapse rate of 4.5% pa); and
- 5% decrease in both mortality and morbidity rates disclosed separately for life assurance and annuity business.

No future management actions are modelled in reaction to the changing non-economic assumptions. In each sensitivity calculation all other assumptions remain unchanged. No changes to valuation bases have been included.

No sensitivities have been included for held for sale operations, reflecting that these operations are stated at expected fair value less cost to sell.

Life and related business embedded value

30 June 2013 Embedded value (net of non-controlling interest)	As reported in F14 £m	10% decrease in maintenance expenses £m	10% decrease in lapse rates £m	5% decrease in mortality/ morbidity rates – life assurance £m	5% decrease in mortality/ morbidity rates – annuity business £m
United Kingdom & Ireland	7,355	230	65	75	(410)
France	3,285	60	25	25	(20)
Poland, Italy, Spain and Other Europe	2,440	35	95	30	(5)
Asia and Other	789	35	5	20	—
Total	13,869	360	190	150	(435)

30 June 2013 Value of new business (net of tax and non-controlling interest)	As reported in F11 £m	10% decrease in maintenance expenses £m	10% decrease in lapse rates £m	5% decrease in mortality/ morbidity rates – life assurance £m	5% decrease in mortality/ morbidity rates – annuity business £m
United Kingdom & Ireland	163	9	5	6	(5)
France	50	4	1	2	—
Poland, Italy, Spain and Other Europe	37	3	9	1	—
Asia and Other	35	3	2	—	—
Total	285	19	17	9	(5)

Directors' responsibility statement

Statement of directors' responsibilities in respect of the Market Consistent Embedded Value (MCEV) basis

When compliance with the European Insurance CFO Forum Market Consistent Embedded Value Principles (MCEV Principles), published in October 2009, is stated, those principles require the directors to prepare supplementary information in accordance with the methodology contained in the MCEV Principles and to disclose and explain any non-compliance with the guidance included in the MCEV Principles.

In preparing this supplementary information, the directors have done so in accordance with these MCEV Principles with the exception of stating held for sale operations at their expected fair value, as represented by expected sales proceeds, less cost to sell and have also complied with the guidance as set out in the basis of preparation. Specifically the directors have:

- determined assumptions on a realistic basis, having regard to past, current and expected future experience and to relevant external data, and then applied them consistently;
- made estimates that are reasonable and consistent; and,
- provided additional disclosures when compliance with the specific requirements of the MCEV Principles is insufficient to enable users to understand the impact of particular transactions, other events and conditions and the Group's financial position and financial performance.

Information on the current directors responsible for providing this statement can be found on pages 80 to 82 of Aviva plc's 2012 Annual Report and Accounts and on the company's website <http://www.aviva.com/investor-relations/corporate-governance/board-of-directors/>

By order of the Board

Patrick Regan
Chief financial officer
7 August 2013

Independent review report to Aviva plc

INDEPENDENT REVIEW REPORT TO THE DIRECTORS OF AVIVA plc – MCEV

Introduction

We have been engaged by the company to review the Consolidated MCEV financial statements in the half year report for the six months ended 30 June 2013, which comprises the Consolidated income statement – MCEV basis, Earnings per share – MCEV basis, the Consolidated statement of comprehensive income – MCEV basis, the Consolidated statement of changes in equity – MCEV basis, the Consolidated statement of financial position – MCEV basis, the Reconciliation of shareholders' equity on IFRS and MCEV bases, the Reconciliation of IFRS total equity to MCEV net worth, the Group MCEV analysis of earnings and the related notes. We have read the other information contained in the half year report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the Consolidated MCEV financial statements.

Directors' responsibilities

The Consolidated MCEV financial statements in the half year report is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the Consolidated MCEV financial statements in the half year report in accordance with the CFO Forum Principles and the Basis of Preparation set out on pages 117 to 121.

Our responsibility

Our responsibility is to express to the company a conclusion on the Consolidated MCEV financial statements in the half year report based on our review. This report, including the conclusion, has been prepared for and only for the company in accordance with our engagement letter dated 7 May 2013 and for no other purpose. We do not, in producing this report, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Basis for Qualified Conclusion on the Consolidated MCEV financial statements

As explained in the Basis of Preparation to the Consolidated MCEV financial statements, the net assets of the held for sale operations have been stated at their expected fair value less costs to sell because the directors believe this to be a better assessment of the value to shareholders' from these operations. By stating the held for sale operations at a value in excess of their MCEV the Consolidated MCEV financial statements do not comply with the CFO Forum Principles. It is not practicable for us to quantify the effect of the non-compliance.

Qualified Conclusion on the Consolidated MCEV financial statements

Based on our review, except for the effects of the matter described in the Basis for Qualified Conclusion paragraph, nothing has come to our attention that causes us to believe that the Consolidated MCEV financial statements in the half year report for the six months ended 30 June 2013 is not prepared, in all material respects, in accordance with the CFO Forum Principles and the Basis of Preparation set out on pages 117 to 121.

PricewaterhouseCoopers LLP
Chartered Accountants
London
7 August 2013

- 1) The maintenance and integrity of the Aviva plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the Consolidated MCEV financial statements since they were initially presented on the website.
- 2) Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Other information

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Glossary

Product definitions

Annuities

A type of policy that pays out regular amounts of benefit, either immediately and for the remainder of a person's lifetime, or deferred to commence from a future date. Immediate annuities may be purchased for an individual and his or her dependants or on a bulk purchase basis for groups of people. Deferred annuities are accumulation contracts, which may be used to provide benefits in retirement. Annuities may be guaranteed, unit-linked or index-linked.

Bonds and savings

These are accumulation products with single or regular premiums and unit-linked or guaranteed investment returns.

Critical illness cover

Pays out a lump sum if the insured person is diagnosed with a serious illness that meets the plan definition.

Deferred annuities

An annuity (or pension) due to be paid from a future date or when the policyholder reaches a specified age. A deferred annuity may be funded by a policyholder by payment of a series of regular contributions or by a capital sum.

Group pensions

A pension plan that covers a group of people, which is typically purchased by a company and offered to their employees.

Income drawdown

The policyholder can transfer money from any pension fund to an income drawdown plan from which they receive an income. The remainder of the pension fund continues to be invested, giving it the potential for growth.

Investment sales

Comprise retail sales of mutual fund-type products such as unit trusts, individual savings accounts (ISAs) and open ended investment companies (OEICs).

ISAs

Individual savings accounts – Tax-efficient plans for investing in stocks and shares, cash deposits or life insurance investment funds, subject to certain limits.

Mortgage endowment

An insurance contract combining savings and protection elements which is designed to repay the principal of a loan or mortgage.

Mortgage life insurance

A protection contract designed to pay off the outstanding amount of a mortgage or loan in the event of death of the insured.

Open ended investment company (OEIC)

An collective investment fund structured as a limited company in which investors can buy and sell shares.

Pension

A means of providing income in retirement for an individual and possibly his/her dependants.

Personal pension

A pension plan tailored to the individual policyholder, which includes the options to stop, start or change their payments.

Protection

An insurance contract that protects the policyholder or his/her dependants against financial loss on death or ill-health.

Regular premium

A series of payments are made by the policyholder, typically monthly or annually, for part of or all of the duration of the contract.

SICAVs

This is an open-ended investment fund, structured as a legally independent joint stock company, whose units are issued in the form of shares.

Single premium

A single lump sum is paid by the policyholder at commencement of the contract.

Stakeholder pensions

Low cost and flexible pension plans available in the UK, governed by specific regulations.

Term assurance

A simple form of life insurance, offering cover over a fixed number of years, during which a lump sum will be paid out if the life insured dies.

Unit trusts

A form of open ended collective investment constituted under a trust deed, in which investors can buy and sell units.

Whole life

A protection policy that remains in force for the insured's whole life; a lump sum will be paid out on death. Traditional whole life contracts have fixed premium payments that typically cannot be missed without lapsing the policy. Flexible whole life contracts allow the policyholder to vary the premium and/or amount of life cover, within certain limits.

General terms

Available for sale (AFS)

Securities that have been acquired neither for short-term sale nor to be held to maturity. These are shown at fair value on the statement of financial position and changes in value are taken straight to equity instead of the income statement.

Association of British Insurers (ABI)

A major trade association for UK insurance companies, established in July 1985.

Acquired value of in force (AVIF)

The present value of future profits on a portfolio of long-term insurance and investment contracts, acquired either directly or through the purchase of a subsidiary.

Bancassurance

An arrangement whereby banks and building societies sell insurance and investment products to their customers on behalf of other financial providers.

UK Corporate Governance Code

The code sets out guidance in the form of principles and provisions on how companies should be directed and controlled to follow good governance practice.

Deferred acquisition costs (DAC)

The costs directly attributable to the acquisition of new business for insurance and investment contracts may be deferred to the extent that they are expected to be recoverable out of future margins in revenue on these contracts.

Fair value

The amount for which an asset can be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

FCA

The Financial Conduct Authority ("FCA") is one of the two bodies (along with the PRA) which replaced the Financial Services Authority from the 1 April 2013. The FCA is a company limited by guarantee and is independent of the Bank of England. It is responsible for the conduct business regulation of all firms (including those firms subject to prudential regulation by the PRA) and the prudential regulation of firms not regulated by the PRA. The FCA has three statutory objectives: securing an appropriate degree of protection for consumers, protecting and enhancing the integrity of the UK financial system and promoting effective competition in the interests of consumers.

Funds under management

Represents all assets actively managed or administered by or on behalf of the Group including those funds managed by third parties.

Funds under management by Aviva

Represents all assets actively managed or administered by the fund management operations of the Group.

General insurance

Also known as non-life or property and casualty insurance. Property insurance covers loss or damage through fire, theft, flood, storms and other specified risks. Casualty insurance primarily covers losses arising from accidents that cause injury to other people or damage the property of others.

Gross written premiums

The total earnings or revenue generated by sales of insurance products, before any reinsurance is taken into account. Not all premiums written will necessarily be treated as income in the current financial year, because some of them could relate to insurance cover for a subsequent period.

Independent Financial Advisers (IFAs)

A person or organisation authorised to give advice on financial matters and to sell the products of all financial service providers.

IFRS

International Financial Reporting Standards. These are accounting regulations designed to ensure comparable statement of financial position preparation and disclosure, and are the standards that all publicly listed companies in the European Union are required to use.

Operating profit

From continuing operations based on expected investment returns, stated before tax attributable to shareholders' profits and before non-operating items including, impairment of goodwill, exceptional and other items. This is also referred to as adjusted operating profit or operating profit (IFRS basis).

Inherited estate

In the UK, the assets of the long-term with-profit funds less the realistic reserves for non-profit policies written within the with-profit funds, less asset shares aggregated across the with-profit policies and any additional amounts expected at the valuation date to be paid to in-force policyholders in the future in respect of smoothing costs and guarantees.

Long-term and savings business

Collective term for life insurance, pensions, savings, investments and related business.

Net written premiums

Total gross written premiums for the given period, minus premiums paid over or 'ceded' to reinsurers.

Net asset value per ordinary share

Net asset value divided by the number of ordinary shares in issue. Net asset value is based on equity shareholders' funds.

Present value of new business premiums (PVNBP)

Present value of new regular premiums plus 100% of single premiums, calculated using assumptions consistent with those used to determine the value of new business under Market Consistent Embedded Value (MCEV) principles published by the CFO Forum.

PRA

The Prudential Regulatory Authority ("PRA") is one of the two bodies (along with the FCA) which replaced the Financial Services Authority from the 1 April 2013. The PRA is a part of the Bank of England and is responsible for the prudential regulation of deposit taking institutions, insurers and major investment firms. The PRA has two statutory objectives: to promote the safety and soundness of these firms and, specifically for insurers, to contribute to the securing of an appropriate degree of protection for policyholders.

Turnbull Guidance on Internal Control

The Turnbull Guidance sets out best practice on internal controls for UK listed companies, and provides additional guidance in applying certain sections of the UK Corporate Governance Code.

Market Consistent Embedded Value (MCEV) terms

Asymmetric risk

Risks that will cause shareholder profits to vary where the variation above and below the average are not equal in distribution.

CFO Forum

The CFO Forum (www.cfoforum.nl) is a high-level group formed by the chief financial officers of major European listed and non-listed insurance companies. Its aim is to discuss issues relating to proposed new accounting regulations for their businesses and how they can create greater transparency for investors.

The forum was created in 2002, the Market Consistent Embedded Value Principles were launched in June 2008. The principles are a further development of the European Embedded Value Principles first launched in May 2004.

Cost of non-hedgeable risks

This is the cost of undertaking those risks for which a deep and liquid market in which to hedge that risk does not exist. This can include both financial risks and non-financial risks such as mortality, persistency and expense.

Covered business

The contracts to which the MCEV methodology has been applied.

Solvency margin

The excess of assets over liabilities and the worldwide minimum solvency margins, excluding goodwill and the additional value of in-force long-term business, and excluding the surplus held in the Group's life funds. The Group solvency calculation is determined according to the Prudential Regulation Authority application of EU Insurance Groups Directive rules.

Financial options and guarantees

Features of the covered business conferring potentially valuable guarantees underlying, or options to change, the level or nature of policyholder benefits and exercisable at the discretion of the policyholder, whose potential value is impacted by the behaviour of financial variables.

Free surplus

The amount of any capital and surplus allocated to, but not required to support, the in-force covered business.

Frictional costs

The additional taxation and investment costs incurred by shareholders through investing the Required Capital in the Company rather than directly.

Group MCEV

A measure of the total consolidated value of the Group with covered life business included on an MCEV basis and non-covered business (including pension schemes and goodwill) included on an IFRS basis.

Gross risk-free yields

Gross of tax yields on risk-free fixed interest investments, generally swap rates under MCEV.

Implicit items

Amounts allowed by local regulators to be deducted from capital amounts when determining the EU required minimum margin.

Life business

Subsidiaries selling life and pensions contracts that are classified as covered business under MCEV.

Life MCEV

The MCEV balance sheet value of covered business as at the reporting date. Excludes non-covered business including pension schemes and goodwill.

Life MCEV operating earnings

Operating earnings on the MCEV basis relating to the lines of business included in the embedded value calculations.

Life MCEV earnings

Total earnings on the MCEV basis relating to the lines of business included in the embedded value calculations. In addition to life operating earnings this includes actual investment experience and other non-operating items.

Look-through basis

Inclusion of the capitalised value of profits and losses arising from subsidiary companies providing administration, investment management and other services to the extent that they relate to covered business.

Long-term savings

Includes life and pension sales calculated under MCEV and retail investment sales.

Market consistent

A measurement approach where economic assumptions are such that projected asset cash flows are valued consistently with current market prices for traded assets.

Net worth

The market value of the shareholders' funds and the shareholders' interest in the surplus held in the non-profit component of the long-term business funds, determined on a statutory solvency basis and adjusted to add back any non-admissible assets, and consists of the required capital and free surplus.

New business margin

New business margins are calculated as the value of new business divided by the present value of new business premiums (PVNBP), and expressed as a percentage.

Required capital

The amount of assets, over and above the value placed on liabilities in respect of covered business, whose distribution to shareholders is restricted.

Risk-free rate (reference rate in CFO Forum terminology)

The risk-free rate is taken as swaps except for all contracts that contain features similar to immediate annuities and are backed by appropriate assets, including paid up group deferred annuities and deferred annuities and all other contracts in the US. The adjusted risk-free rate is taken as swaps plus the additional return available for products where backing asset portfolios can be held to maturity.

Service companies

Companies providing administration or fund management services to the covered business.

Solvency cover

The excess of the regulatory value of total assets over total liabilities, divided by the regulatory value of the required minimum solvency margin.

Spread business

Contracts where a significant source of shareholder profits is the taking of credit spread risk that is not passed on to policyholders. The most significant spread business in Aviva are immediate annuities and US deferred annuities and life business.

Statutory basis

The valuation basis and approach used for reporting financial statements to local regulators.

Stochastic techniques

Techniques that allow for the potential future variability in assumptions.

Symmetric risks

Risks that will cause shareholder profits to vary where the variation above and below the average are equal and opposite. Financial theory says that investors do not require compensation for non-market risks that are symmetrical as the risks can be diversified away by investors.

Time value and intrinsic value

A financial option or guarantee has two elements of value, the time value and intrinsic value. The intrinsic value is the discounted value of the option or guarantee at expiry, assuming that future economic conditions follow best estimate assumptions. The time value is the additional value arising from uncertainty about future economic conditions.

Value of new business

Is calculated using economic assumptions set at the start of each quarter and the same operating assumptions as those used to determine the embedded values at the end of the reporting period and is stated after the effect of any frictional costs. Unless otherwise stated, it is also quoted net of tax and minority interests.

Shareholder services

2013 financial calendar

Announcement of third quarter Interim Management Statement	7 November 2013
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Annual General Meeting (AGM)

- The voting results for the 2013 AGM, including proxy votes and votes withheld, can be viewed on our website at www.aviva.com/agm. There you will also find a webcast of the formal business of the meeting and information relating to Aviva's annual general meetings since 2002.

Dividends

2013 interim dividend dates – ordinary shares

Ex-dividend date	9 October 2013
Record date	11 October 2013
Dividend payment date *	15 November 2013

* Please note that the ADR local payment date will be approximately five business days after the proposed dividend date for ordinary shares.

- Dividends on ordinary shares are normally paid in May and November - please see the table above for the key dates in respect of the 2013 interim dividend.
- Dividends on preference shares are normally paid in March, June, September and December - please visit www.aviva.com/preferenceshares for the latest dividend payment dates.
- Holders of ordinary and preference shares will receive any dividends payable in sterling and holders of ADRs will receive any dividends payable in US dollars.

Direct credit of dividend payments

- If you would like to have your cash dividends paid directly into your bank or building society account, please visit www.aviva.com/dividendmandate for more information or contact the Company's Registrar, Computershare Investor Services PLC (Computershare), using the contact details overleaf.

Overseas global dividend service

- The Global Payments Service provided by Computershare enables shareholders living overseas to elect to receive their dividends in a choice of over 65 international currencies. For further details and fees for this service please visit www.investorcentre.co.uk/faq and select the Dividends and Payments tab, followed by Global Payment Service.

Online Shareholder Services Centre – www.aviva.com/shareholderservices

The online shareholder services centre has been designed to provide useful information for holders of Aviva ordinary shares, preference shares and ADRs, and includes features to allow shareholders to manage their Aviva shareholdings easily and efficiently.

Within the online centre you will be able to find a shareholders' guide which includes a wide range of frequently asked questions, information about the Aviva Share Account, current and historic ordinary share and ADR prices, old and recent dividend dates and rates, share dealing information and, when available, presentations from Aviva's senior management. You will also be able to download an electronic copy of recent Company reports.

Manage your holdings online

You can view and manage your shareholding online by visiting www.aviva.com/ecomms. To register you will require your Shareholder Reference Number (11 digit number beginning with a C, I, or G) which you will find on your latest dividend stationery or any share certificate issued since 4 July 2011.

On the site, you can:

- View your shareholding;
- Change your personal details;
- Switch to electronic communications;
- View your transaction and payment history;
- View your dividend election; and
- Arrange direct credit of dividend payments.

ShareGift

If you have a small number of shares which you consider uneconomical to sell, you may wish to consider donating them to ShareGift (Registered Charity: 1052686), a charity that specialises in accepting such unwanted small shareholdings. Donated shares are aggregated and sold, with the proceeds being used to support a wide range of UK registered charities. You can find out more about ShareGift by visiting www.sharegift.org or by calling them on +44 (0)20 7930 3737. If you would like to donate your shares to ShareGift, please contact Computershare.

Be on your guard – beware of fraudsters!

Shareholders are advised to be very wary of any unsolicited telephone calls or correspondence offering to buy shares at a discount or offering free financial advice or company reports. Boiler rooms use increasingly sophisticated means to approach investors and often leave their victims out of pocket. Aviva would like to remind its shareholders to remain vigilant at all times.

The FCA have provided tips on how you can avoid being a victim of share fraud, which can be found on the FCA website at www.fca.org.uk/consumers/scams/investment-scams/share-fraud-and-boiler-room-scams/protect-yourself


- Remember: if it sounds too good to be true, it probably is!
- Remain vigilant – be very wary of any unsolicited advice, or offers to buy shares at a discount.
- If calls persist, hang up.

To find out more information on how you can protect yourself, please visit www.aviva.com/shareholderservices

Contact details

Ordinary and preference shares – Computershare

For any queries regarding your shareholding, or to advise of changes to your personal details, please contact our Registrar, Computershare:


 **By telephone:** 0871 495 0105
Lines are open from 8.30am to 5pm (UK time), Monday to Friday (excluding public holidays).
Please call +44 117 378 8361 if calling from outside of the UK.

 **By email:** avivaSHARES@computershare.co.uk


 **In writing:** Computershare Investor Services PLC,
The Pavilions, Bridgwater Road, Bristol BS99 6ZZ

American Depositary Receipts (ADRs) – Citibank

For any queries regarding Aviva ADRs, please contact Citibank Shareholder Services (Citibank):

 **By telephone:** 1 877 248 4237 (1 877-CITI-ADR), or
+1 781 575 4555 if you are calling from outside of the
US. (Lines are open from 8.30am to 6.00pm, Monday to
Friday US Eastern Standard Time).

 **By email:** citibank@shareholders-online.com

 **In writing:** Citibank Shareholder Services,
PO Box 43077, Providence, Rhode Island 02940-3077
USA


Please visit www.citi.com/dr for further information about Aviva's ADR programme.

Group Company Secretary

Shareholders may contact the group company secretary as follows:

 **By email:** aviva.shareholders@aviva.com

 **In writing:** Kirstine Cooper, Group Company Secretary,
St Helen's, 1 Undershaft, London EC3P 3DQ

 **By telephone:** +44 (0)20 7283 2000

Form 20-F

Aviva is a foreign private issuer in the United States of America and is subject to certain reporting requirements of the Securities Exchange Commission (SEC). Aviva files its Form 20-F with the SEC, copies of which can be found at www.aviva.com/reports.

Useful links for shareholders

Online Shareholder Services Centre
www.aviva.com/shareholderservices

Dividend information for ordinary shares
www.aviva.com/dividends

Annual General Meeting information
www.aviva.com/aggm

Aviva share price
www.aviva.com/shareprice

ADR holders
www.aviva.com/adr

Aviva preference shareholders
www.aviva.com/preferenceshares

Aviva preference share price
www.londonstockexchange.com

Do you receive duplicate documents?

A number of shareholders still receive duplicate documentation and split dividend payments as a result of having more than one account on the Aviva Register of Members. If you think you fall into this group and would like to combine your accounts, please contact Computershare.