

Aviva plc 2013 Preliminary Results Announcement

Cash flow	<ul style="list-style-type: none"> ■ Cash remittances¹ to Group up 40% at £1,269 million² (FY12: £904 million) ■ Operating capital generation¹ £1,772 million (FY12: £1,859 million) ■ Remittance ratio 72%^{1,2} (FY12: 49%) ■ Final dividend per share 9.4p (FY12: 9p). Full year dividend per share 15p.
Profit	<ul style="list-style-type: none"> ■ Operating profit¹ 6% higher at £2,049 million (FY12: £1,926 million) ■ IFRS profit after tax £2,151 million (FY12: loss after tax £2,934 million)
Expenses	<ul style="list-style-type: none"> ■ Operating expenses £3,006 million^{1,3}, down 7% ■ £360 million cost savings already achieved ■ 2013 cost savings ahead of plan
Value of new business	<ul style="list-style-type: none"> ■ Value of new business⁵ up 13% at £835 million (FY12: £738 million) ■ Poland, Turkey and Asia⁵ contributed 21% of Group VNB (FY12: 16%) and collectively grew 49%
Combined operating ratio	<ul style="list-style-type: none"> ■ Combined operating ratio 97.3% (FY12: 97.0%) ■ 2014 flood losses of £60 million in the UK in January and February, in line with long term average
Balance sheet	<ul style="list-style-type: none"> ■ Intercompany loan reduced by £1.7 billion to £4.1 billion at end of February 2014 (FY12: £5.8 billion) ■ Agreed plan to reduce inter-company loan to £2.2 billion by end of 2015, utilising £450 million of existing cash resources and £1.45 billion of other actions ■ Liquidity of £1.6 billion at end of February 2014 ■ Economic capital surplus⁴ £8.3 billion (FY12: £7.1 billion⁴), coverage ratio 182% ■ IFRS net asset value per share 270p (FY12: 278p) ■ MCEV net asset value per share 445p (FY12: 422p)

Mark Wilson, Group Chief Executive Officer, said:

"The turnaround at Aviva is intensifying. We have focused the business on 'cash flow plus growth' and the benefits are starting to be reflected in our performance. Cash flows to the Group are up 40%, operating expenses are down 7%, operating profit is up 6% and Value of New Business is up 13%. After a £2.9 billion loss after tax last year, Aviva has delivered a £2.2 billion profit.

"Following our exit from a number of low margin, underperforming or non-strategic businesses, Aviva is simpler, more focused and better managed. We have significantly improved our capital surplus, increased our liquidity and have a stronger leadership team.

"Although we have made progress in 2013, I want to guard against complacency. Aviva still has issues to address. Have we made progress? Yes, some. Is it a little faster than anticipated? Probably. Have we unlocked the full potential at Aviva? Not yet."

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

² Cash remittances include amounts received from UK General Insurance in January 2014 in respect of activity in 2013.

³ Operating expenses excludes integration and restructuring costs and US Life

⁴ The pro forma surplus at FY12 included the benefit of disposals and an increase in pension scheme risk allowance from five to ten years of stressed contributions. 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.

⁵ Excluding Malaysia and Sri Lanka.

Key financial metrics

Cash

	Cash remitted to Group			Operating capital generation		
	2013 £m	2012 £m	Sterling% change	2013 £m	Restated ¹ 2012 £m	Sterling% change
Continuing operations, excluding Delta Lloyd						
United Kingdom & Ireland Life	370	150	147%	595	688	(14)%
United Kingdom & Ireland general insurance & health ²	347	150	131%	374	376	(1)%
Europe	388	343	13%	558	571	(2)%
Canada	130	136	(4)%	177	192	(8)%
Asia and Other	34	125	(73)%	68	32	113%
Total	1,269	904	40%	1,772	1,859	(5)%

Operating profit: IFRS basis

	2013 £m	Restated ¹ 2012 £m	Sterling% change
Continuing operations, excluding Delta Lloyd			
Life business	1,901	1,831	4%
General insurance and health	797	894	(11)%
Fund management	93	51	82%
Other*	(742)	(850)	13%
Total	2,049	1,926	6%

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

Expenses

	2013 £m	2012 £m	Sterling% change
Continuing operations			
Operating expenses	3,006	3,234	(7)%
Integration & restructuring costs	363	461	(21)%
Expense base	3,369	3,695	(9)%

Value of new business

	2013 £m	2012 £m	Sterling % change
Continuing operations			
United Kingdom	435	420	4%
Ireland	6	(8)	175%
France	166	119	39%
Poland	51	35	46%
Italy	15	29	(48)%
Spain	33	56	(41)%
Turkey & Other Europe	38	32	19%
Asia – excluding Malaysia & Sri Lanka	91	55	65%
Value of new business – excluding Malaysia & Sri Lanka	835	738	13%
Malaysia & Sri Lanka	1	8	(88)%
Value of new business	836	746	12%

General insurance combined operating ratio

	2013	2012	Change
Continuing operations			
United Kingdom & Ireland	97.2%	98.6%	(1.4)pp
Europe	98.1%	99.4%	(1.3)pp
Canada	94.6%	93.4%	1.2pp
General insurance combined operating ratio	97.3%	97.0%	0.3pp

IFRS Profit after tax

	2013 £m	2012 £m	Sterling% change
IFRS profit/(loss) after tax	2,151	(2,934)	n/a

Dividend

	2013	2012
Final dividend	9.4p	9.0p
Total dividend per share	15.0p	19.0p

Capital position

	2013 £bn	2012 £bn	Pro forma ⁴ 2012 £bn
Estimated economic capital surplus ³	8.3	5.3	7.1
Estimated IGD solvency surplus ³	3.6	3.8	3.9
IFRS net asset value per share	270p	278p	
MCEV ⁵ net asset value per share	445p	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 Cash remittances include amounts received from Aviva Insurance Limited in January 2014 in respect of 2013 activity.

³ The economic capital surplus and IGD solvency surplus represent an estimated position. The economic 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.

⁴ The pro forma economic capital and IGD surplus at 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.

⁵ 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

The turnaround at Aviva is intensifying. We have focused the business on 'cash flow plus growth' and are beginning to see the benefits of this reflected in our performance. Cash flows are up 40%, operating expenses are down 7%, operating profit is up 6% and Value of New Business is up 13%. After a £2.9 billion loss after tax last year, Aviva has delivered a £2.2 billion profit after tax.

To deliver our investment thesis of cash flow plus growth we need to be financially robust. In 2013, we increased economic capital surplus from £7.1 billion¹ to £8.3 billion and liquidity at the Group Centre has increased significantly to £1.6 billion at the end of February 2014. With reference to earnings and cash flow improvements, the Board has proposed a 9.4p dividend.

Reducing the inter-company loan has been a key priority in 2013. Over the past 12 months, we have reduced the loan by £1.7 billion to £4.1 billion². We have agreed a comprehensive plan to reduce the inter-company loan to £2.2 billion, utilising £450 million of existing cash resources and £1.45 billion of other actions. We have reached agreement with the Prudential Regulation Authority ("PRA") and I believe the execution of this plan will take the issue of our inter-company loan off the table.

We have also completed significant disposals in the US, Aseval in Spain, Malaysia, Netherlands and announced a disposal in Italy. I believe Aviva is now more focused and better managed.

Aviva has an extraordinary depth of talented people who understand the core insurance businesses and this depth means we have strong core underwriting businesses. Nevertheless, we needed to strengthen some aspects of our skill set and since the start of 2013, Aviva's senior management pool has been deepened with key appointments in finance, asset management, human resources, IT and transformation, together with numerous internal promotions.

Although we have made progress in 2013, turnarounds are rarely linear and the improving results should be tempered by the realism that the business still has issues to address and is performing nowhere near its full potential.

Cash flow

- *Cash remitted to Group of £1,269 million³ up 40%*
- *72% remittance ratio (FY12: 49%)*

The first part of our 'cash flow plus growth' investment thesis is to convert more of our profits into cash remitted to Group. Higher cash remittances allow for optimal capital allocation and dividend flexibility. In 2013, cash remittances were £1,269 million³, a 40% increase over the 2012 comparative. This represents a remittance ratio of 72% of operating capital generation (OCG) and is progress towards my ambition to get the remittance ratio above 80%.

Our cash generators, UK, France and Canada, generated a 59% increase in cash remittances, making up 80% of the total cash remitted to Group. Following the resumption of dividends from Ireland and Italy, all our turnaround businesses are now remitting cash to Group.

Operating profit

- *Operating profit: £2,049 million, up 6%*

2013 operating profit increased 6% to £2,049 million (FY12: £1,926 million). The stability of our profit stream underlines our 'cash flow plus growth' investment proposition. After a £2.9 billion loss last year principally due to the write-down of Aviva USA, our profit after tax increased to £2.2 billion.

While satisfactory at a Group level, there remain a number of opportunities to improve our operating profit. Declines in our Italian and Spanish life businesses need to be reversed and our growth markets need over time to contribute more to operating profit. Aviva Investors grew its fund management contribution 74%, but at around 3% of group operating profit and with assets under management of £241 billion, this remains inadequate. Plans are in place to address these issues over the coming years and Euan Munro brings much needed leadership and impetus to Aviva Investors.

1 The pro forma surplus at FY12 included the benefit of disposals and an increase in pension scheme risk allowance from five to ten years of stressed contributions.

2 At end of February 2014.

3 Includes £347 million remitted by UK General Insurance in January 2014 in respect of activity in 2013.

Expenses

- *Operating expenses £360 million lower than 2011 baseline at £3,006 million*

Our 2013 operating expense base is now 11% below the 2011 baseline with £360 million of expense reductions coming through operating profit. We are well on track to deliver our £400 million expense reduction target by the end of 2014.

There remains significant opportunity to reduce expenses further but some of these additional savings will be reallocated in the near term towards initiatives to manage our existing books of business more efficiently and serve customers more effectively through deploying the latest digital and automation technology. I am confident that whatever reallocation is made will produce attractive returns and a short payback period, without significant disruption to our workforce.

Going forward, we will measure our expense efficiency using a ratio of operating expenses to revenue. The group expense ratio for 2013 is 54% (FY12: 57%). Lower expense ratios are essential for us to offer competitive products to our customers and to produce the necessary returns for our shareholders. It is my intention to show improvement in this ratio year after year.

Value of new business

- *VNB⁴ up 13% to £835 million*

We measure our growth in life insurance by growth in value of new business (VNB), which is a good proxy for future cash flows. In 2013, VNB⁴ increased 13% to £835 million (FY12: £738 million) with stand-out performances in France and our growth markets.

Our life cash-generators in the UK and France grew VNB 4% and 39% respectively. We have achieved this through better product and business mix and we have initiatives underway to increase productivity in both countries. France in particular, has demonstrated that significant growth is possible in mature markets.

We have made a number of structural changes to our turnaround businesses - such as reducing the capital intensity of our Italian business - that should ensure more focus and better VNB growth.

Our future cash generators of Poland, Turkey, China and Asia⁴ contributed 21% of Group VNB (FY12: 16%) and collectively grew 49%. Our new joint venture in Indonesia is an example of how we can expand our presence in emerging markets, without impacting the cash flow part of our investment thesis.

Combined operating ratio

- *COR at 97.3%*

In general insurance, the combined operating ratio (COR) deteriorated slightly to 97.3% (FY12: 97.0%), entirely due to adverse weather in the year. Floods in Alberta and Toronto Canada cost the Group £129 million and the December storms in the UK had a £60 million operating profit impact, although the impact of the UK storms was offset by better than expected weather earlier in the year. Bad weather in the UK has persisted in January and February 2014 with claims of approximately £60 million recorded. However, this is broadly in line with our weather expectations for January and February. Our overriding focus is to help our customers affected by the bad weather and our teams of loss adjusters, surveyors and claims experts – the largest in the UK - have been on hand 7 days a week, offering advice and support.

Financial strength

- *Economic capital surplus¹ £8.3 billion*
- *Inter-company loan reduced by £1.7 billion to £4.1 billion²*

Strengthening our financial position has been a focus in 2013. Our economic capital surplus has increased to £8.3 billion, which represents a 182% coverage ratio and includes our defined benefit pension on a more conservative fully-funded basis. We welcome the progress made by our regulators on Solvency II and the level playing field that this is likely to create.

Over the last 12 months there has been substantial focus on the intercompany loan (ICL) and 2013 has seen considerable progress in this area. As at the end of February 2014, the ICL was £4.1 billion (Q1 2013: £5.8 billion), reduced by a cash contribution of £0.45 billion and non-cash measures of £1.25 billion. We have reached agreement with the PRA on the appropriate level and plans for the ICL and will complete implementation of our plans by the end of 2015. Our target level for the loan is £2.2 billion. We plan on using a further £0.45 billion of cash and £1.45 billion of other measures to achieve the £2.2 billion target. The cash is to come from existing liquidity, putting no extra strain on our ongoing cash generation.

Our external leverage ratio is at 50% (FY12: 50%) of IFRS tangible capital. On a more broadly recognised S&P basis, this ratio has reduced to 32% (FY12: 33%). We have recently stated our intention to call two tranches of bonds, with principal of £240 million and coupon above 10%. Over time we expect to reduce our external leverage ratio to below 40% of tangible capital.

People

One of the priorities in 2013 was to strengthen the management team to bring in new skills into the group and progress has been made in this area. We have appointed new leaders in asset management, human resources, IT, Europe, Asia, UK General Insurance and transformation through a combination of senior internal promotions and external hires.

I would like to thank Pat Regan for his many contributions to the Group over the past four years and in particular for his support of me over the past year. I wish him well in his future career in Australia. We have announced that Tom Stoddard will succeed Pat as CFO. Tom is a high calibre individual who will provide sound judgement and challenge.

An essential part of the company's transformation is embedding a higher performance culture across Aviva. We are introducing a new set of values which will guide the day to day actions of our 28,000 people. These values provide the framework on which decisions are being made. These values are: Create Legacy, Kill Complexity, Never Rest and Care More.

One of the strengths of Aviva is the dedication and commitment of our people. This has been exemplary in 2013 and I would like to thank them for their tireless work on behalf of our customers and shareholders.

Outlook

In summary, our performance in 2013 shows progress towards delivering what we said we would. Our turnaround is intensifying as we focus more on improving operational performance. We plan on using big data to be more disruptive in predictive analytics, take advantage of our brand strength to grow our digital direct business and drive further efficiency through automation. We will be selective in our investments with a clinical approach to the allocation of capital.

As a business it is important that we build on the progress made in 2013. Aviva is a self-help story with a balanced and increasingly focused portfolio of businesses. The tendency with self help or turnaround businesses is to focus on the successes rather than the issues and as a result become complacent. I want to guard against this happening at Aviva. Have we made progress? Yes, some. Is it a little faster than anticipated? Probably. Have we unlocked the full potential at Aviva? No, there is more to come.

Mark Wilson,
Group Chief Executive Officer

¹ 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.

² At the end of February 2014.

Overview

2013 was a year in which the financial position of the group improved, cash flow and earnings were higher and we finalised a plan to reduce the inter-company loan to a sustainable level by the end of 2015.

We have sharpened the focus of the group, completing disposals of our US insurance business, remaining holding in Delta Lloyd, Aseval in Spain and Malaysian business. In addition, we have announced the disposal of our 39% stake in Italian insurer Eurovita.

The financial strength of the group has improved significantly. At the end of 2013, our economic capital surplus increased to £8.3 billion from a pro forma surplus of £7.1 billion at FY12. Our IGD surplus has reduced modestly to £3.6 billion (*FY12: £3.8 billion*) and group liquidity was £1.6 billion at the end of February 2014.

During the year we have increased cash remittances 40% to £1,269 million (*FY12: £904 million*), representing a remittance ratio of 72% of operating capital generation.

As we continue to make progress resolving our balance sheet issues, our focus will shift to improving performance. In this area progress has already been made, particularly in improving expense and capital efficiency.

Business Unit Performance

In UK life, our largest business, life operating profit grew 5%, operating expenses were 16% lower, remittances doubled and value of new business (VNB) was 4% higher. The VNB growth came despite the difficult comparator in the fourth quarter of 2012, when annuity sales were elevated ahead of the gender directive implementation. The business has adapted well to the retail distribution review (RDR), with strong net flows in our platform and SME-focused corporate pensions offering. Individual protection sales are lower however, as banks have pulled back from advised selling. Going forward, we expect to capitalise on our market leading position in annuities, benefit from a partial rebound in protection sales in the bancassurance channel and extract greater efficiency from our back book.

Our UK general insurance business ("UK GI") grew its underwriting result to £117 million (*FY12: £48 million*) and the combined operating ratio improved to 97% (*FY12: 98.3%*). Despite a stormy end to 2013, the UK results benefitted from relatively benign weather over the whole year. Remittances from UK GI in respect of 2013 increased to £347 million primarily due to the simplified legal entity structure and the restructure of the internal loan.

A lower long-term investment result (LTIR) of 3.2% on average assets (*FY12: 4.2%*) brought down the UK GI operating profit to £431 million (*FY12: £459 million*). This lower investment return is primarily due to a reduced interest rate on the inter-company loan, which although it impacts the results of the UK GI business, is offset at Group by lower internal interest costs. The LTIR is expected to continue reducing as we bring down the inter-company loan. Personal motor, home and commercial property all achieved improved combined operating ratios. Total commercial COR was 102.9% (*FY12: 104.0%*). Within this, large commercial lines business drove an 11 percentage point improvement in the commercial property COR. However, our commercial motor COR deteriorated 6 percentage points due to unfavourable prior year development.

Our French life business had a particularly strong year. Operating profit was up 15%, value of new business up 39%, and cash remittances up 16%. Although our overall market share is relatively modest, we have an attractive distribution offering with a large owned sales network and existing key partnerships including AFER, the largest savers' association in Europe. This has seen us accumulate over €80 billion of assets, which generate a stable revenue stream. Much of the success of 2013 has come from a shift in focus away from capital intensive savings products to unit-linked and protection products.

Our Canadian general insurance business, the second largest in the market, produced a solid result, despite the higher weather losses from floods in Alberta and Toronto. The combined operating ratio in Canada was 94.6% (*FY12: 93.4%*), with personal lines primarily affected by bad weather with a COR of 93.3% (*FY12: 90.5%*). Improvement in commercial lines is, in part, attributable to the early stages of the implementation of predictive analytics.

In the growth markets of Poland, Turkey and Asia, VNB improved by 46%, 23% and 65%⁵ respectively and collectively contributed 21% of total Group VNB. As previously communicated, the partial nationalisation of the Polish pensions market will have negligible impact on our growth prospects. In addition to strong new business growth, Poland remitted £85 million in cash to group. In Asia, in addition to achieving strong growth in Singapore and China we have also established a joint venture with Astra International, Indonesia's largest conglomerate, which we expect to fuel future growth. Our focus in growth markets remains in life businesses.

Progress has been made in our turnaround businesses of Italy, Spain and Ireland, although there remains significant room for improvement. In Spain and Italy we are moving our product mix away from more capital intensive savings products towards unit-linked and protection products. We have resumed dividend payments from Italy and Ireland.

The turnaround at Aviva Investors is, as previously communicated, likely to take time. The business had assets under management at FY13 of £241 billion with £5 billion of net outflows experienced in the year.

In 2013, we found evidence of improper allocation of trades in fixed income securities in Aviva Investors by two former employees. This occurred prior to 2013. The relevant regulatory authorities have been notified. A thorough review of internal control processes relating to the dealing policy has been carried out by management and reviewed by PwC. Measures to improve controls have been implemented. There is a total adverse impact on operating profit from this activity of £132 million. We are taking steps to ensure that customers will not ultimately be disadvantaged as a result of these breaches of the dealing policy.

The above costs are included in other operations and the impact of this cost is offset by a gain from the curtailment of the Irish pension scheme.

Capital and liquidity

Our FY2013 economic capital surplus is £8.3 billion with a coverage ratio of 182% (FY12: *pro forma* £7.1 billion). This includes the impact of moving the pension scheme calibration to a fully funded basis, which reduced the surplus by approximately £0.7 billion. We have increased the economic capital surplus during the year by a combination of product mix changes, capital allocation, asset optimisation, hedging, expense reductions and completion of disposals. Economic capital is our preferred measure of capitalisation, especially in anticipation of a transition to Solvency II. Our IGD surplus has reduced modestly to £3.6 billion (FY12: £3.8 billion), with positive capital generation more than offset by the reduction in value of in force as a result of the legislation changes to Polish pensions.

In 2013 we were included on the list of nine Global Systemically Important Insurers and will work closely with the regulators to understand the implications of this.

Cash remittances have increased by 40% from 2012 to £1,269 million with a remittance ratio of 72% of OCG up from 49% in 2012 with both business units in the UK reporting large increases. In UK Life this was due to improved pricing, capital allocation and cost reductions, while in UK GI the improvement was primarily due to the restructure of the inter-company loan. It was also encouraging to see dividends resume from Italy and Ireland and increased dividends from France and Poland.

The £1.3 billion of remittances are used to fund the dividend, internal and external interest payments along with central costs resulting in a neutral centre operating cash flow in 2013, improving from a deficit in 2012.

Group centre liquidity currently stands at £1.6 billion following the receipts from the disposals of Aviva USA, Delta Lloyd and Aseval amongst others.

Inter-company loan

As part of the structural reorganisation of the group we moved a number of businesses from the UK GI legal entity ("AIL⁶") to be owned by Aviva Group Holdings ("AGH"). These businesses were paid for by way of an inter-company loan by AIL to AGH of £5.8 billion. Since then, we have reduced the loan balance by £1.7 billion to £4.1 billion at the end of February 2014 by repaying £450 million in cash and we have also taken actions to reduce the required capital in AIL, which has allowed us to retire a further £1.25 billion of the internal loan.

We have agreed with the Prudential Regulation Authority ("PRA") the appropriate long term level of the internal loan between AGH and AIL. That level has been set such that AIL places no reliance on the loan to meet its stressed insurance liabilities assessed on a 1:200 basis. The PRA agree with this approach. The effect of this will be to reduce the internal loan balance from its current level of £4.1 billion to approximately £2.2 billion. We will complete this reduction by the end of 2015.

We plan to achieve our £2.2 billion targeted balance through a further cash repayment of £450 million along with other actions that will bring the loan balance down by £1.45 billion. These planned actions include the funding and de-risking of our pension scheme, along with more effective use of internal reinsurance and other actions to reduce stressed liabilities. We expect the future cash repayment to be funded from our existing central cash balance and future disposal proceeds. We do not expect these actions to have a material adverse impact on group profitability.

Our overall plan to reduce the loan balance to £2.2 billion has been reviewed and agreed by the PRA.

External leverage

External leverage remains broadly unchanged in 2013, with a debt to tangible equity ratio of 50% (FY12: 50%). On an S&P basis, our leverage ratio is 32%.

In February 2014, we announced our intention to call a £200 million 10.6725% and a €50 million 10.464% hybrid bond on their respective April 2014 call dates.

We remain committed to achieving a debt to tangible capital ratio of below 40% over the medium term, and below 30% on an S&P basis, consistent with a AA rating.

Net Asset Value

Our 2013 MCEV book value per share increased 5% to 445p, primarily due to operating earnings, the effect of the US disposal and positive investment variances, being partially offset by dividend payments, IAS19 pension movements, and integration and restructuring costs.

The IFRS book value declined 3%, primarily due to movement in the IAS19 position of our pension schemes and in the first half of 2013, we increased the provision for default in our commercial mortgage portfolio by £300 million. These reductions more than offset positive contributions from operating profit and higher proceeds from the US disposal.

Net asset value ⁷	IFRS	MCEV
Opening NAV per share at 31 December 2012	278p	422p
Operating profit	53p	55p
Effect of US disposal	6p	6p
Dividends & appropriations	(18)p	(18)p
Investment variances including commercial mortgage provision increase	(14)p	18p
Pension schemes	(19)p	(19)p
Integration and restructuring costs, goodwill impairment and other	(14)p	(16)p
Foreign exchange movements	(2)p	(3)p
Closing NAV per share at 31 December 2013	270p	445p



Pat Regan
Group Chief Financial Officer

Notes to editors

All comparators are for the full year 2012 position unless otherwise stated.

Income and expenses of foreign entities are translated at average exchange rates while their assets and liabilities are translated at the closing rates on 31 December 2013. The average rates employed in this announcement are 1 euro = £0.85 (12 months to 31 December 2012: 1 euro = £0.81) and US\$1 = £0.64 (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.

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Contents

In this section	Page
Overview	
Key financial metrics	3
1 Cash	4
i Cash remitted to Group	4
ii Operating capital generation	4
iii Free surplus emergence	6
2 Operating profit: IFRS basis	7
3 Expenses	8
4 Value of new business	9
5 Combined operating ratio	10
6 Business unit performance	11
i United Kingdom and Ireland Life	11
ii United Kingdom and Ireland General Insurance & Health	12
iii Europe	13
iv Canada	14
v Asia	15
vi Fund management	16
7 Profit drivers: IFRS basis	17
i Life business	17
ii General insurance and health	20
iii Net flows	22
8 Capital & assets summary	23
i Summary of assets	23
ii External leverage	24
iii Net asset value	25
iv Return on equity	26
v European Insurance Groups Directive (IGD)	26
vi Economic capital	27
Financial supplement	29
Income & expenses	30
IFRS financial statements	35
Capital & assets	93
Capital and liquidity	94
Analysis of assets	103
VNB & Sales analysis	127
MCEV financial statements	133
Other information	169

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Key financial metrics

Cash

	Cash remitted to Group			Operating capital generation		
	2013 £m	2012 £m	Sterling % change	2013 £m	Restated ¹ 2012 £m	Sterling % change
Continuing operations, excluding Delta Lloyd						
United Kingdom & Ireland Life	370	150	147%	595	688	(14)%
United Kingdom & Ireland general insurance & health ²	347	150	131%	374	376	(1)%
Europe	388	343	13%	558	571	(2)%
Canada	130	136	(4)%	177	192	(8)%
Asia and Other	34	125	(73)%	68	32	113%
Total	1,269	904	40%	1,772	1,859	(5)%

Operating profit before tax: IFRS basis

	2013 £m	Restated ¹ 2012 £m	Sterling % change
Continuing operations, excluding Delta Lloyd			
Life business	1,901	1,831	4%
General insurance and health	797	894	(11)%
Fund management	93	51	82%
Other*	(742)	(850)	13%
Total	2,049	1,926	6%

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

Expenses

	2013 £m	2012 £m	Sterling % change
Continuing operations			
Operating expenses	3,006	3,234	(7)%
Integration & restructuring costs	363	461	(21)%
Expense base	3,369	3,695	(9)%

Value of new business

	2013 £m	2012 £m	Sterling % change
Continuing operations			
United Kingdom	435	420	4%
Ireland	6	(8)	175%
France	166	119	39%
Poland	51	35	46%
Italy	15	29	(48)%
Spain	33	56	(41)%
Turkey & Other Europe	38	32	19%
Asia – excluding Malaysia & Sri Lanka	91	55	65%
Value of new business – excluding Malaysia & Sri Lanka	835	738	13%
Malaysia & Sri Lanka	1	8	(88)%
Value of new business	836	746	12%

General insurance combined operating ratio

	2013	2012	Change
Continuing operations			
United Kingdom & Ireland	97.2%	98.6%	(1.4)pp
Europe	98.1%	99.4%	(1.3)pp
Canada	94.6%	93.4%	1.2pp
General insurance combined operating ratio	97.3%	97.0%	0.3pp

IFRS Profit after tax

	2013 £m	Restated ¹ 2012 £m	Sterling % change
IFRS profit/(loss) after tax	2,151	(2,934)	n/a

Dividend

	2013	2012
Final dividend	9.4p	9.0p
Total dividend per share	15.0p	19.0p

Capital position

	2013 £bn	2012 £bn	Pro forma ⁴ 2012 £bn
Estimated economic capital surplus ³	8.3	5.3	7.1
Estimated IGD solvency surplus ³	3.6	3.8	3.9
IFRS net asset value per share	270p	278p	
MCEV ⁵ net asset value per share	445p	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. See note B1 for details.

2 Cash remittances include amounts received from Aviva Insurance Limited in January 2014 in respect of 2013 activity.

3 The economic capital surplus and IGD solvency surplus represent an estimated position. The economic 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.

4 At FY13 there is no pro forma basis for economic capital and IGD surplus. The FY13 economic capital surplus includes the allowance for staff pension scheme deficits on a fully funded basis under stressed conditions. The pro forma economic capital and IGD surplus at 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.

5 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 FY13 from continuing operations, excluding the United States and Delta Lloyd, were £1,269 million (*FY12: £904 million*). The 2013 totals include amounts received from Aviva Insurance Limited in January 2014 in respect of 2013 activity in that business and its subsidiaries.

	2013			2012		
	Operating capital generation £m	Dividend £m	% remitted to Group	Restated Operating capital generation £m	Dividend £m	Restated % remitted to Group
United Kingdom & Ireland life	595	370	62%	688	150	22%
United Kingdom & Ireland general insurance & health ¹	374	347	93%	376	150	40%
France	294	235	80%	330	202	61%
Poland	135	85	63%	124	70	56%
Italy	88	12	14%	75	—	—
Spain	51	51	100%	78	68	87%
Other Europe	(10)	5	n/a	(36)	3	n/a
Europe	558	388	70%	571	343	60%
Canada	177	130	73%	192	136	71%
Asia	97	20	21%	80	25	31%
Other	(29)	14	n/a	(48)	100	n/a
Group – continuing operations	1,772	1,269	72%	1,859	904	49%
United States and Delta Lloyd	195	—	—	123	40	33%
Group as reported	1,967	1,269	n/a	1,982	944	48%

¹ FY13 dividend from UKGI of £347 million was remitted to Group in January 2014.

The improvement in cash remitted to Group is primarily driven by increased remittances from our businesses in UK life, Ireland life and UK general insurance. In addition, higher remittances were also received from our businesses in France, Poland and Italy, reflecting the benefit of management actions.

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.

	2013 £m	Restated 2012 £m
Operating capital generation:		
Life in-force business ¹	1,530	1,703
General insurance, fund management and other operations	577	534
Operating capital generated before investment in new business – continuing operations (excluding Delta Lloyd)	2,107	2,237
Capital invested in new business	(335)	(378)
Operating capital generated after investment in new business – continuing operations (excluding Delta Lloyd)	1,772	1,859
United States and Delta Lloyd	195	123
Group as reported	1,967	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 F9, 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) was no longer managed on an 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.

2013 £m	Life OCG				Non-life OCG					Total 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	
United Kingdom & Ireland life	421	17	141	579	18	18	(14)	(6)	16	595
United Kingdom & Ireland general insurance & health	—	—	—	—	360	—	(5)	19	374	374
Europe	705	(272)	72	505	67	—	(5)	(9)	53	558
Canada	—	—	—	—	182	—	(2)	(3)	177	177
Asia	105	(66)	83	122	—	2	(13)	(14)	(25)	97
Fund management	3	—	—	3	—	18	—	2	20	23
Other	—	—	—	—	(51)	—	2	(3)	(52)	(52)
Total continuing operations	1,234	(321)	296	1,209	576	38	(37)	(14)	563	1,772
United States										195
Total Group operating capital generation										1,967

Restated 2012 £m	Life OCG				Non-life OCG					Total 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	
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 F9, 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 £1,772 million, down 5% compared to prior year (FY12: £1,859 million). Positive new business strain in the UK reflects annuity repricing action. Within the overall total, expense savings benefits across the group within OCG have been more than offset by the impact of Canadian flood costs and a lower level of benefits from management actions, particularly financial reinsurance transactions in UK Life. 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**

Release of future profits and required capital	2013 £m	2012 £m
Year 1	1,223	1,190
Year 2	1,142	1,156
Year 3	1,093	1,175
Year 4	1,065	1,168
Year 5	1,167	1,003
Year 6	1,124	977
Year 7	1,046	917
Year 8	1,031	857
Year 9	946	952
Year 10	924	952
Years 11-15	4,238	4,312
Years 16-20	3,702	3,541
Years 20+	8,871	8,335
Total net of non-controlling interests¹	27,572	26,535

¹ Cashflow profiles exclude all 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 cash flows 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 cash flows are based on the non-economic assumptions used in the MCEV and normalised investment returns.

For existing business, the cash flows 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.

The expected return in the OCG of £1,234 million (see note 1.ii) is broadly equal to the year 1 cash flow from 31 December 2012 of £1,190 million. The 2013 total of £1,234 million includes the expected transfers from the value in force (VIF) and required capital to free surplus of £1,217 million (MCEV section, note F8) and also the free surplus component of the expected return on net worth, which equals £17 million.

The total real world cash flows have increased over 2013, largely reflecting the expected future cash flows from new business and higher real world returns partly offset by the expected run-off of the existing business and the regulatory changes in Poland relating to pension funds.

The free surplus emergence in the table above only includes business written in the RIEESA when conditions for its release to shareholders are expected to have been met, which is currently in year 4.

Operating profit: IFRS basis

2 – Operating Profit: IFRS basis

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

For the year ended 31 December 2013

Continuing operations, excluding Delta Lloyd	2013 £m	Restated 2012 £m
Operating profit before tax attributable to shareholders' profits		
Life business		
United Kingdom & Ireland	952	892
France	385	335
Poland	164	153
Italy	142	159
Spain	150	215
Turkey	8	5
Other Europe	2	2
Europe	851	869
Asia	96	69
Other	2	1
Total life business (note 7.i)	1,901	1,831
General insurance and health		
United Kingdom & Ireland	489	502
Europe	112	98
Canada	246	277
Asia	1	(5)
Other	(51)	22
Total general insurance and health (note 7.ii)	797	894
Fund management		
Aviva Investors	68	39
United Kingdom	23	11
Asia	2	1
Total fund management	93	51
Other		
Other operations (note A1)	(90)	(177)
Market operating profit	2,701	2,599
Corporate centre (note A2)	(150)	(136)
Group debt costs and other interest (note A3)	(502)	(537)
Operating profit before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	2,049	1,926

Overall, operating profit has increased by £123 million to £2,049 million (*FY12: £1,926 million*), with the main movements being operating expense savings of £228 million, partly offset by the costs of the Canadian floods in June and July (total impact to Group of £129 million). In addition there are two large one-off items included in these results - a curtailment gain of £145 million relating to the Ireland pension scheme and a charge of £132 million relating to compensation payments (see A1 – Other operations for further details). The net impact of these on operating profit is a gain of £13 million.

Within the UK general insurance business, long term investment return has reduced by £113 million, of which £78 million is a result of the restructure of the internal loan at the start of 2013 (which is neutral at an overall Group level).

The Group adopted the amendments to IAS 19 during the period (see note B1 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 full year 2012 of £150 million, with a corresponding decrease in other comprehensive income.

Expenses

3 – Expenses

a) Expense base

	2013 £m	2012 £m
Continuing operations		
Operating expenses	3,006	3,234
Integration & restructuring costs	363	461
Expense base	3,369	3,695

b) Operating expenses¹

	2013 £m	2012 £m
Continuing operations		
UK & Ireland life	607	736
UK & Ireland general insurance & health	818	826
Europe	644	662
Canada	378	401
Asia	86	93
Aviva Investors	290	306
Other Group activities	183	210
Operating cost base – continuing operations	3,006	3,234

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:

	2013 £m	2012 £m
Claims handling costs ²	352	337
Non-commission acquisition costs ³	871	968
Other expenses	1,783	1,929
Operating cost base – continuing operations	3,006	3,234

² As reported within Net claims and benefits paid of £22,093 million (FY12: £23,601 million).

³ As reported within Fee and commission expense of £3,975 million (FY12: £4,457 million).

Overall operating expenses for the period were £3,006 million (FY12: £3,234 million), a reduction of £228 million compared with prior year. The overall 2011 base-line for the Group-wide expense reduction target is £3,366 million⁴, meaning that £360 million of savings out of the £400 million target to be delivered by the end of 2014 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, lowering levels of property spend through renegotiation of leases or exiting property and reducing consultancy spend.

Total operating expenses of our European markets have reduced by 3% compared to 2012 (7% on a constant currency basis) with lower costs in all markets on a constant currency basis.

Aviva Investors has reduced operating expenses by £16 million, reflecting lower staff-related expenditure as a result of the restructuring initiatives implemented in 2012. Other Group activities, which include Group centre costs, have improved, particularly as a result of regional head office reductions and closures, including Aviva Europe and Aviva North America in 2012.

c) Integration and restructuring costs

Integration and restructuring costs from continuing operations were £363 million (FY12: £461 million) and mainly include expenses associated with the Group's transformation programme. Compared with the prior period, integration and restructuring costs reduced by 21% as transformation activity in UK and Ireland's general insurance business in 2012 was not repeated and Solvency II implementation costs reduced to £79 million (FY12: £117 million).

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

Value of new business

4 – Value of new business by market

Gross of tax and non-controlling interests – continuing operations	2013 £m	2012 £m
United Kingdom	435	420
Ireland	6	(8)
United Kingdom & Ireland	441	412
France	166	119
Poland	51	35
Italy	15	29
Spain	33	56
Turkey	37	30
Other Europe	1	2
Europe	303	271
Asia – excluding Malaysia & Sri Lanka	91	55
Value of new business – excluding Malaysia & Sri Lanka	835	738
Malaysia & Sri Lanka	1	8
Value of new business	836	746

The Group's **value of new business**¹ (VNB) increased by 12% to £836 million (*FY12: £746 million*). The growth was primarily driven by strong performances in France, the UK & Ireland, Poland and Asia, partially offset by reductions in Italy and Spain.

Overall new business volumes were broadly neutral, with reductions in the UK and Ireland and parts of Asia offset by increases in France, Poland, Italy, Turkey and Singapore. New business margin increased to 4.1% (*FY12: 3.6%*) (on a PVNBP basis) as businesses continued to focus on growing new business value.

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 significantly 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, and a focus on higher margin product lines, particularly protection and annuities, in addition to expense efficiencies.

In Europe improvements were largely driven by growth in France, Poland and Turkey, offset by reductions in Italy and Spain. In France the VNB increased by 39%, driven by increased volumes and a shift towards higher margin unit-linked products. Poland's VNB increased by 46% largely due to an increase in sales of unit-linked products and expense reductions, and Turkey's VNB increased by 23% due to an increase in sales of higher margin protection products. In Italy, lower risk-free rates impacted margins on with-profits business, particularly in Eurovita, which is held for sale. Excluding Eurovita, VNB increased by £4 million, principally due to management action to reduce guarantees on with-profits policies. In Spain, market conditions remained difficult, with VNB decreasing by 19% (excluding Aseval) due to lower volumes of protection business, particularly higher margin mortgage-linked products, as a result of the continuing contraction of the Spanish mortgage market.

Excluding Malaysia and Sri Lanka, which have both now been sold, VNB in Asia increased by 65% to £91 million (*FY12: £55 million*), reflecting an increase in sales of higher margin products, particularly protection business in Singapore, China, and India. Expense savings in Singapore also had a positive impact on VNB.

On a net of tax and non-controlling interest basis, the Group's VNB increased by 17% to £593 million (*FY12: £505 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 premium		Claims ratio ²		Commission and expense ratio ³		Combined operating ratio ⁴	
	2013 £m	2012 £m	2013 %	2012 %	2013 %	2012 %	2013 %	2012 %
United Kingdom ¹	3,823	4,062	61.9	63.3	35.1	35.0	97.0	98.3
Ireland	278	326	64.1	69.7	35.1	32.6	99.2	102.3
United Kingdom & Ireland	4,101	4,388	62.1	63.8	35.1	34.8	97.2	98.6
Europe	1,360	1,295	69.6	70.2	28.5	29.2	98.1	99.4
Canada	2,250	2,176	63.2	61.0	31.4	32.4	94.6	93.4
Asia	14	22	76.3	68.5	31.8	37.1	108.1	105.6
Other ⁵	33	67						
Total	7,758	7,948	64.5	64.2	32.8	32.8	97.3	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 97.3% (FY12: 97.0%) with the adverse impact of extreme flooding in Canada offsetting improvements in UK & Ireland and Europe.

During June there was extreme flooding in Alberta, Canada. This 1 in 100 year event has impacted the group result at FY13 by £84 million (net of reinsurance). At the start of July 2013, there was also flooding in Toronto which has further impacted the FY13 group result by £45 million (net of reinsurance). Of the total impact of these two floods, £62 million is included in the results for Canada and £67 million is in the results of our internal reinsurance company, Aviva Re. The adverse impact on Group COR of these two events is 1.6pp.

In the **UK and Ireland**, GI COR has improved by 1.4pp to 97.2% (FY12: 98.6%), reflecting an improvement in the claims ratio partially offset by a slightly higher commission ratio. In the UK, favourable movements in the claims ratio are largely driven by favourable weather and large loss experience, partly offset by some adverse prior year development. The small adverse movement in commission ratio is due to higher profit share commissions, as a result of favourable weather. In Ireland the COR has improved to 99.2% (FY12: 102.3%) mainly due to an improvement in the claims ratio as a result of good weather and favourable prior year claims experience, partly offset by higher commissions, as a result of a change in distribution structure. Ireland remains in the early stages of its turnaround and there remains significant work to be done.

Europe's GI COR has improved by 1.3pp to 98.1% (FY12: 99.4%), reflecting an improvement across all components. Improvements in the claims ratio are largely driven by improved underwriting discipline and lower losses in Italy and Turkey, partly offset by a deterioration in France, largely driven by unfavourable weather in the second half of the year, and a small deterioration in Poland. Improvements in the commission and expense ratio reflecting management actions on expense efficiencies.

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 FY13 we have had a positive prior year development in our GI & health business, benefitting operating profit by £77 million (FY12: £84 million benefit to operating profit).

Business unit performance

6.i – United Kingdom and Ireland Life

	2013 £m	2012 £m
Cash remitted to Group	370	150
Operating capital generation	595	688
Life Operating profit: IFRS basis	952	892
Expenses		
Operating expenses	607	736
Integration and restructuring costs	59	71
	666	807
Value of new business	441	412

Cash

During the year total cash remitted to Group was £370 million, up 147% from 2012, giving a remittance ratio of 62% (FY12: 22%). The UK Life business paid a dividend of £300 million in the first half of the year, an increase from £150 million in 2012. In July Ireland paid a dividend to Group of £70 million (FY12: *nil*) as progress on the turnaround of the Irish business continues.

Operating Capital Generation

Operating Capital Generation was down 14% to £595 million (FY12: £688 million). There was a slight increase on an underlying basis after adjusting for a prior year reinsurance transaction which contributed c.£100 million. Continued focus on cost reduction and pricing discipline have reduced the new business strain (FY13: £17 million favourable, FY12: £37 million strain).

Operating profit: IFRS basis

UK & Ireland life operating profit for FY13 was £952 million (FY12: £892 million). Within this total the UK life operating profit was £930 million, an increase of 5%. After adjusting for a net benefit from non-recurring items of £66 million in FY13 relating to longevity assumption changes and £74 million in FY12 which included the release of a longevity transaction reserve, life operating profit in the UK increased by 6%. This increase was due to expense reductions and pricing discipline. Ireland operating profit was up to £22 million (FY12: £5 million) as we continue to make progress in turning the business around.

Expenses

UK operating expenses reduced by 16% to £569 million (FY12: £675 million). Cost reduction actions include the de-layering of management structures, distribution rationalisation and prioritisation of IT and change initiatives. In the UK integration and restructuring costs were £44 million (FY12: £48 million), including the costs of Solvency II implementation and other project costs.

Ireland operating expenses reduced 38% to £38 million (FY12: £61 million) with the reduction principally driven by the removal of the Ark Life business. Restructuring and integration costs were £15 million (FY12: £23 million).

Value of new business

Value of new business increased 7% to £441 million (FY12: £412 million). In the UK, VNB was up 4% to £435 million (FY12: £420 million), reflecting the focus on value through disciplined pricing and cost reductions. In Ireland VNB was up £14 million to £6 million (FY12: £(8) million) as a result of a strategic shift in business mix to more profitable products and the sale of the Ark Life business.

6.ii – United Kingdom and Ireland General Insurance & Health

	2013 £m	2012 £m
Cash remitted to Group ¹	347	150
Operating capital generation	374	376
Operating profit: IFRS basis	489	502
Expenses		
Operating expenses	818	826
Integration and restructuring costs	24	170
	842	996
Combined operating ratio ²	97.2%	98.6%

¹ Cash remittances include amounts received from Aviva Insurance Limited in January 2014 in respect of 2013 activity.

² General insurance business only.

Cash

Following the inter-company loan restructure in 2013, dividends from the business increased to £347 million, a remittance ratio of 93%. The 2013 total remittances include amounts received from Aviva Insurance Limited in January 2014 in respect of 2013 activity in that business and its subsidiaries. Dividends will normally be received in Q4 each year.

Operating Capital Generation

Operating Capital Generation in 2013 was £374 million (FY12: £376 million) in line with the previous year.

Operating profit: IFRS basis

UK and Ireland General insurance and health operating profit was £489 million (FY12: £502 million). The movement in operating profit includes a £122 million reduction in the total UK and Ireland general insurance investment return, of which £78 million reflects the revised terms of the internal loan, which is neutral at an overall Group level. This has been partly offset by an improved GI underwriting result of £123 million (FY12: £42 million). Underwriting performance in the year benefitted from benign weather, the impact of which was favourable compared to both expectations and 2012 despite claims totaling £60 million for the December storms and flooding. The result also included favourable large loss experience and lower expenses.

In UK general insurance, 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 year, net written premiums (NWP) from UK general insurance declined 6% to £3,823 million (FY12: £4,062 million). This reduction is primarily driven by £123 million in SME commercial lines, reflecting remedial actions to improve the profitability of the book, and £107 million in personal motor as a result of disciplined underwriting in a competitive market.

Expenses

Total expenses (including integration and restructuring costs) have fallen by £154 million to £842 million (FY12: £996 million).

UK general insurance total expenses have improved by 6% to £711 million (FY12: £756 million), including the impact of a reduction in headcount and other actions taken to mitigate reduced volumes.

Ireland GI and health expenses improved materially, reducing to £131 million (FY12: £240 million) including restructuring and integration costs. The reduction in cost base forms a key component of the turnaround strategy for this business.

Combined operating ratio²

	Claims ratio		Commission and expense ratio		Combined operating ratio	
	2013 %	2012 %	2013 %	2012 %	2013 %	2012 %
United Kingdom & Ireland						
Personal	57.7	59.6	35.4	34.7	93.1	94.3
Commercial	68.2	69.7	34.8	34.9	103.0	104.6
Total	62.1	63.8	35.1	34.8	97.2	98.6

² General insurance business only.

The overall UK & Ireland general insurance combined operating ratio (COR) has improved to 97.2% (FY12: 98.6%).

UK general insurance COR improved to 97.0% (FY12: 98.3%), with a positive impact of lower weather-related claims, compared with 2012 and favourable large loss experience. UK prior year reserves saw an overall strengthening of £18 million (FY12: £17 million).

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. Against this backdrop, the personal motor COR has improved slightly to 96% (FY12: 97%) as a result of our disciplined underwriting. Homeowner COR has improved to 87% (FY12: 93%), reflecting favourable weather and the 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 103% (FY12: 104.6%). There has been a benefit from the actions taken to remediate unprofitable business and favourable claims experience in commercial property, which has been partly offset by a strengthening of prior year reserves in UK commercial motor.

Performance in Ireland has improved with an overall COR of 99.2% (FY12: 102.3%), driven by a reduction in claims ratio resulting from improved weather and favourable prior year claims experience.

6.iii – Europe¹

	2013 £m	2012 £m
Cash remitted to Group	388	343
Operating capital generation	558	571
Operating profit: IFRS basis		
Life	851	869
General insurance & health	112	98
	963	967
Expenses		
Operating expenses	644	662
Integration and restructuring costs	34	28
	678	690
Value of new business	303	271
Combined operating ratio ²	98.1%	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 increased by 13% to £388 million (*FY12: £343 million*). This includes increased remittances from France (up 16% to £235 million), Poland (up 21% to £85 million) and Italy (*FY13: £12 million; 2012: nil*). These increases were partly offset by a reduction from Spain, reflecting the extraordinary dividend received from the retail business in 2012 and impact of the disposal of Aseval.

Operating capital generation

Operating capital generation (OCG) of £558 million is marginally below prior year (*FY12: £571 million*), with increases in Poland, Italy and Turkey offset by reductions in France and Spain (due to the disposal of Aseval).

Life operating profit: IFRS basis

Life operating profit reduced by 2% (6% in local currency) to £851 million (*FY12: £869 million*). Excluding the disposal of Aseval, Life operating profit increased by 5% primarily driven by increases in France and Poland, partly offset by reductions in Spain and Italy. In France, operating profit increased by 15% to £385 million (*FY12: £335 million*) mainly as a result of higher new business and increased margins. In Poland life operating profit improved by 7% to £164 million (*FY12: £153 million*), due to lower expenses and higher assets under management. In Spain, operating profit of £150 million was £65 million lower than prior year principally reflecting the sale of Aseval. In Italy life operating profit was £142 million, down 11% against prior year as 2012 benefitted from a one-off reinsurance transaction.

General insurance & health operating profit: IFRS basis

Operating profits of £112 million (*FY12: £98 million*) are up 14% (7% on a local currency basis). In Italy profits improved by 75% to £35 million (*FY12: £20 million*). This strong performance was driven by pricing and underwriting actions and lower claims frequency in motor. In Poland, operating profit of £9 million was stable. In France, operating profit was down 12% to £84 million (*FY12: £95 million*) largely due to reserves strengthening and adverse weather experience. Operating profit for our French health business improved more than 70% from 2012 to £14 million as a result of better claims experience and lower expenses.

Expenses

Total expense base reduced by 2% to £678 million (*FY12: £690 million*), with a stronger reduction measured in local currencies (5% improvement). Integration and restructuring costs of £34 million were largely incurred in France.

Value of new business

Value of new business (VNB) for Europe improved by 12% to £303 million (*FY12: £271 million*). Strong growth in France, Poland and Turkey was partly offset by reductions in Spain and Italy. VNB in France increased due to higher volumes and a move towards more favourable product mix, with a significant increase in the proportion of unit-linked business. In Turkey, VNB increased as a result of higher volumes and higher pension business following recent regulatory changes. In Spain, VNB was adversely impacted by the loss of the Aseval business and lower protection sales as a result of the continuing contraction of the mortgage market. In Italy, VNB was £15 million (*FY12: £29 million*) as lower risk-free rates impacted margins on with-profits business (particularly in Eurovita). Excluding Eurovita, VNB in Italy increased by £4 million (up 13%), driven by management actions to improve profitability of our with-profits products and reduce the cost of guarantees.

Combined operating ratio²

	Claims ratio		Commission and expense ratio		Combined operating ratio	
	2013 %	2012 %	2013 %	2012 %	2013 %	2012 %
Europe						
France	69.5	66.6	27.6	28.3	97.1	94.9
Poland	61.9	61.5	33.3	37.0	95.2	98.5
Italy	67.6	73.1	27.6	26.7	95.2	99.8
Turkey	84.5	95.0	39.4	42.1	123.9	137.1
Total	69.6	70.2	28.5	29.2	98.1	99.4

² General Insurance business only.

Combined operating ratio (COR) has improved to 98.1% (*FY12: 99.4%*). In Italy COR reduced to 95.2% (*FY12: 99.8%*) reflecting lower claims frequency and pricing actions. Poland also reduced COR to 95.2% (*FY12: 98.5%*) due to lower claims frequency and expenses. In Turkey, COR has improved against FY12 but remains unsatisfactory at 123.9% (*FY12: 137.1%*). These improvements were partly offset by a deterioration in France COR to 97.1% (*FY12: 94.9%*), reflecting adverse weather during the second half of 2013 and strengthening of reserves.

6.iv – Canada

	2013 £m	2012 £m
Cash remitted to Group	130	136
Operating capital generation	177	192
Operating profit: IFRS basis	246	277
Expenses		
Operating expenses	378	401
Integration and restructuring costs	9	11
	387	412
Combined operating ratio	94.6%	93.4%

Cash

During the year total cash remitted to Group was £130 million. On a local currency basis this was in line with the cash remitted in 2012. The remittance ratio for the year was 73% compared with 71% in 2012.

Operating capital generation

Operating capital generation was £177 million, 8% lower than 2012. This reduction is predominantly driven by the severe weather events seen during 2013.

Operating profit: IFRS basis

General insurance operating profit was £246 million (*FY12: £277 million*), an 11% reduction compared with the prior year (9% reduction on a local currency basis). This was driven by the impact of the severe flooding in Alberta and Toronto during the year, which were Canada's first and third largest CAT loss events for the overall insurance industry. This flooding reduced operating profit within the Canadian business by £62 million (with a further adverse impact of £67 million in the results of the Group's internal reinsurance business). As a result there has been an increase in the combined operating ratio for personal and commercial property compared with 2012 but this was partially offset by lower expenses and favourable prior year reserve development reflecting the Ontario Auto reforms as well as prior year reserve releases in commercial lines.

Long-term investment return, was down £11 million to £135 million, reflecting lower reinvestment yields.

Business volumes have increased during 2013, with net written premiums up 3% to £2,250 million (*FY12: £2,176 million, 5% growth on a local currency basis*), driven by rating increases in personal and commercial property and growth in new business volumes across most lines, with particularly strong growth seen in Western Canada.

Expenses

Operating expenses are £378 million (*FY12: £401 million*), a reduction of 6%. On a constant currency basis, operating expenses have reduced by 4% reflecting the continued focus on expense management and the realisation of cost savings initiatives. Integration and restructuring costs were lower than the prior year at £9 million (*FY12: £11 million*).

Combined operating ratio

	Claims ratio		Commission and expense ratio		Combined operating ratio	
	2013 %	2012 %	2013 %	2012 %	2013 %	2012 %
Canada						
Personal	64.0	60.6	29.3	29.9	93.3	90.5
Commercial	61.8	61.7	35.1	36.4	96.9	98.1
Total	63.2	61.0	31.4	32.4	94.6	93.4

Compared to the prior year, combined operating ratio is higher at 94.6% (*FY12: 93.4%*), driven by the adverse impact of the Alberta and Toronto weather events. The expense ratio has improved compared with 2012 reflecting the focus on cost control.

6.v – Asia

	2013 £m	2012 £m
Cash remitted to Group	20	25
Operating capital generation	97	80
Operating profit: IFRS basis		
Life	96	69
General insurance & health	1	(5)
	97	64
Expenses		
Operating expenses	86	93
Integration and restructuring costs	7	4
	93	97
Value of new business – excluding Malaysia & Sri Lanka	91	55
Combined operating ratio	108.1%	105.6%

Cash

During the year total cash remitted to Group was £20 million, (FY12: £25 million). This dividend was paid entirely from the Singapore business, representing an 18% increase on Singapore's 2012 remittance to Group. The overall remittance ratio reflects the focus on growth in Asia and was 21% in 2013 (FY12: 31%).

Operating Capital Generation

Operating capital generation in 2013 was £97 million (FY12: £80 million), which primarily reflects the positive impact of a reinsurance transaction in Singapore reported in the first half of 2013.

Operating profit: IFRS basis

Overall operating profit from life and the general insurance and health business increased to £97 million (FY12: £64 million), mainly driven by higher earnings from the in-force portfolio and increased profits from favourable experience in China. Within this total, life business profits grew to £96 million (FY12: £69 million), with a £1 million result from the non-life business (FY12: £5 million loss).

Expenses

Operating expenses have reduced by 8% (7% on local currency basis) to £86 million (FY12: £93 million), mainly due to the disposal of Sri Lanka. The increase in integration and restructuring costs reflect the restructuring of Asia's head office.

Value of New Business

Value of new business (VNB), excluding Malaysia and Sri Lanka, for the period was £91 million (FY12: £55 million), an increase of 65% (on a sterling and local currency basis) with the growth driven by Singapore and China. 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, China's sales mix shifted towards higher margin traditional protection products with a net increase in VNB to £16 million (FY12: £9 million).

Combined Operating Ratio

Combined operating ratio for the Asia businesses was 108.1% (FY12: 105.6%), with the deterioration driven by a one-off increase in reserve margin in Singapore. Overall net written premiums for the general insurance and health business reduced to £100 million (FY12: £120 million), reflecting the withdrawal from some unprofitable health products in Singapore and the disposal of our Sri Lankan business in Q4 2012.

6.vi – Fund management

	2013 £m	2012 £m
Cash remitted to Group¹	14	15
Operating capital generation¹	23	7
Operating profit: IFRS basis		
Aviva Investors	68	39
United Kingdom	23	11
Asia	2	1
	93	51
Aviva investors: Operating profit: IFRS basis		
Fund management	68	39
Other operations – client compensation costs	(96)	—
	(28)	39
Expenses¹		
Operating expenses	290	306
Integration and restructuring costs	41	33
	331	339

¹ Only includes Aviva Investors Fund Management

Cash

During 2013 a dividend of £14 million was paid to Group, compared with a dividend of £15 million in 2012.

Operating Capital Generation

Operating capital generation in Aviva Investors increased by £16 million to £23 million, primarily as a result of higher operating profits in the year.

Operating profit: IFRS basis

Aviva Investors fund management operating profit was £68 million (*FY12: £39 million*) driven by higher revenues reflecting positive market movements and performance fees together with reduced operating expenses as a result of cost savings initiatives.

In 2013 we found evidence of improper allocation of trades in fixed income securities in Aviva Investors. This occurred between 2006 - 2012. There is a total adverse impact on operating profit from this activity of £96 million, reflecting the compensation expected to be claimed in respect of these breaches and associated costs. These client compensation costs have been recognised within the 'Other operations' result (note A1).

Expenses

Operating expenses have fallen by £16 million compared with 2012 to £290 million, with reductions in staff and non-staff spend. Integration and restructuring costs have increased by £8 million to £41 million, reflecting restructuring activity required as part of the 2013 strategic review.

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	17,182	10,112	27,294
Gross claims/redemptions	(20,967)	(11,376)	(32,343)
Market movements and other	11,130	(1,910)	9,220
Funds under management at 31 December 2013	192,372	48,135	240,507

Aviva Investors funds under management have increased by £4.2 billion during the year. This is driven by market movements and the impact of foreign exchange movements, offset by net redemptions. Within market movements and other, there has also been a reallocation of £3.8 billion of funds from an externally managed provider to Aviva Investors.

While we have seen significant external sales in 2013, these have been more than offset by outflows. Sales have included strong inflows in the UK Liquidity funds, the 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 business.

Profit drivers: IFRS basis

7.i – Life business

Life business operating profit before shareholder tax for continuing operations increased by 4% to £1,901 million (FY12: £1,831 million).

Total income reduced by 7% to £3,352 million (FY12: £3,609 million), principally as a result of reduced annuity sales in the UK. This has been partially offset by an 11% reduction in expenses to £1,582 million (FY12: £1,787 million), with falls in both acquisition and administration costs, giving an improvement in cost/income ratio to 47% (FY12: 50%). In addition, the contribution from DAC and AVIF amortisation and other items increased with an aggregate £129 million positive impact for the period (FY12: £8 million). There has been an overall benefit of £37 million to the life business operating profit due to foreign exchange movements in 2013, largely driven by the strengthening of the euro.

In the UK & Ireland, life operating profit increased by 7%. After adjusting for a net benefit from non-recurring items of £66 million in FY13 relating to longevity assumption changes and £74 million in FY12 which included the release of a longevity transaction reserve, life operating profit in the UK and Ireland increased by 8%. This was driven by higher new business income net of acquisition expenses, lower administration expenses and a higher benefit from DAC and AVIF and other items.

Life operating profit decreased by 2% in Europe, driven by lower new business income, partially offset by increased participating business income and lower acquisition expenses.

In Asia, an increase in life operating profit of 39% was driven by growth in new business income in Singapore and China, favourable experience and an overall reduction in expenses and charges.

	United Kingdom & Ireland		Europe		Asia		Total Continuing Operations	
	2013 £m	Restated 2012 £m	2013 £m	2012 £m	2013 £m	2012 £m	2013 £m	Restated 2012 £m
New business income	488	619	234	267	116	101	838	987
Underwriting margin	213	261	305	339	52	58	570	658
Investment return	780	822	1,101	1,076	63	66	1,944	1,964
Total Income	1,481	1,702	1,640	1,682	231	225	3,352	3,609
Acquisition expenses	(284)	(451)	(300)	(317)	(94)	(100)	(678)	(868)
Administration expenses	(405)	(426)	(461)	(450)	(38)	(43)	(904)	(919)
Total Expenses	(689)	(877)	(761)	(767)	(132)	(143)	(1,582)	(1,787)
DAC, AVIF and other	160	67	(28)	(46)	(3)	(13)	129	8
	952	892	851	869	96	69	1,899	1,830
Other business ¹							2	1
Total – continuing operations							1,901	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	
	2013	Restated 2012	2013	2012	2013	2012	2013	Restated 2012
New business income (£m)	488	619	234	267	116	101	838	987
APE (£m)	1,390	1,516	1,022	902	298	310	2,710	2,728
As margin on APE (%)	35%	41%	23%	30%	39%	33%	31%	36%
Underwriting margin (£m)	213	261	305	339	52	58	570	658
Analysed by:								
Expenses	51	66	70	99	33	32	154	197
Mortality and longevity	130	129	210	213	14	18	354	360
Persistence	32	66	25	27	5	8	62	101

(a) New business income

New business income reduced to £838 million (FY12: £987 million) due to lower new business volumes in UK & Ireland and a reduction in new business margin on APE in both the UK & Ireland and Europe. The net contribution from new business is the new business income less associated acquisition expenses, which increased by 34% to £160 million (FY12: £119 million).

In the UK & Ireland, net contribution from new business increased by 21% to £204 million (FY12: £168 million) as a result of cost efficiencies and a reduction in annuity and protection volumes partially offset by increased volumes of pension business during the year. There was a reduction in margin on APE to 35% (FY12: 41%) largely driven by a change in the business mix, mainly due to lower annuity volumes.

In Europe, net contribution reduced by 32% to a loss of £66 million (FY12: loss of £50 million). Volumes based on APE increased by 13%, largely driven by France and Italy, particularly across pension and bond products. New business margin has reduced to 23% (FY12: 30%) largely due to changes in product mix, particularly in Spain and the impact of adverse economics on with-profit business in Italy.

In Asia, net contribution increased to £22 million (FY12: profit of £1 million) driven by an increase in volumes of higher margin protection business and a reduction in acquisition costs as a result of a change in business mix with lower commission.

(b) Underwriting margin

The underwriting margin reduced to £570 million (FY12: £658 million). The reduced margin in the UK & Ireland was primarily driven by a lower profit in Ireland following the sale of Ark Life. In Europe, an overall decrease in underwriting margin was driven by the sale of Aseval in Spain and disposal of other smaller European businesses. This was partially offset by an improvement in France as a result of management actions to reduce the cost of guaranteed death benefits which generated additional profits of £38 million (FY12: £29 million).

7.i – Life business continued

Income: Investment return

	United Kingdom & Ireland		Europe		Asia		Total
	2013	Restated 2012	2013	2012	2013	2012	Restated 2012
Unit-linked margin (£m)	411	425	454	433	20	24	882
As annual management charge on average reserves (bps)	88	95	119	121	167	185	107
Average reserves (£bn)	46.9	44.9	38.3	35.9	1.2	1.3	82.1
Participating business (£m)	86	78	510	477	(6)	(8)	547
As bonus on average reserves (bps)	23	20	82	79	n/a	n/a	54
Average reserves (£bn)	36.6	39.7	62.3	60.3	1.5	1.4	101.4
Spread margin (£m)	140	121	28	40	37	36	197
As spread margin on average reserves (bps)	35	31	67	87	195	189	43
Average reserves (£bn)	40.3	38.8	4.2	4.6	1.9	1.9	45.3
Expected return on shareholder assets (£m)	143	198	109	126	12	14	338
Total (£m)	780	822	1,101	1,076	63	66	1,964

(c) Unit-linked margin

The unit-linked margin was stable at £885 million (*FY12: £882 million*). The margin as a proportion of average unit-linked reserves was 102 bps (*FY12: 107 bps*), on average reserves of £86 billion (*FY12: £82 billion*). The decrease in unit-linked margin in the UK & Ireland is primarily driven by the sale of Ark Life in Ireland and a change in business mix in the UK to lower margin pension business and business with lower charges in light of the Retail Distribution Review (RDR). The increase in Europe is primarily driven by higher volumes in France, where there have been several successful new product launches during the year, and Poland. In Asia, the decrease in margin is primarily driven by a decrease in in-force reserves and changes in business mix.

(d) Participating business

Income from participating business increased to £590 million (*FY12: £547 million*). In the UK & Ireland, the shareholder transfer from with-profit funds increased to £86 million (*FY12: £78 million*), reflecting higher levels of bonuses paid to policyholders. In Europe, income increased to £510 million (*FY12: £477 million*), driven by favourable exchange rate movements and higher profitability in Italy due to improved economics towards the end of the year. Participating business income in France, which contributes the majority of participating income in the Group, is broadly stable. In Asia, losses were incurred on our participating business in China and Hong Kong.

(e) Spread margin

Spread business income, which mainly relates to UK immediate annuity and equity release business, was stable at £205 million (*FY12: £197 million*). The spread margin on average reserves remained stable at 44 bps (*FY12: 43 bps*), on average reserves of £46 billion (*FY12: £45 billion*). The spread margin in the UK & Ireland increased to £140 million (*FY12: £121 million*), reflecting growth in annuity assets under management. In Europe the spread margin reduced due to the sale of Aseval in Spain.

(f) Expected return on shareholder assets

Expected returns, representing investment income on surplus funds reduced to £264 million (*FY12: £338 million*). The reduction in income mainly relates to the UK, reflecting lower bond yields on the assets within the surplus funds and the lower unwind of the cost of guarantees.

7.i – Life business continued

Expenses

	United Kingdom & Ireland		Europe		Asia		Total
	2013	Restated 2012	2013	2012	2013	2012	Restated 2012
Acquisition expenses (£m)	(284)	(451)	(300)	(317)	(94)	(100)	(868)
APE (£m)	1,390	1,516	1,022	902	298	310	2,728
As acquisition expense ratio on APE (%)	20%	30%	29%	35%	32%	32%	32%
Administration expenses (£m)	(405)	(426)	(461)	(450)	(38)	(43)	(919)
As existing business expense ratio on average reserves (bps)	33	35	44	45	83	93	40
Average reserves (£bn)	123.8	123.4	104.8	100.8	4.6	4.6	233.2

(g) Acquisition expenses

Acquisition expenses reduced to £678 million (*FY12: £868 million*), driven by reductions 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 25% (*FY12: 32%*).

(h) Administration expenses

Administration expenses reduced to £904 million (*FY12: £919 million*), driven by cost efficiencies in UK & Ireland and Asia, partly offset by increases in Europe due to higher renewal commission in France as a result of increased sales and adverse exchange rate movements. The expense ratio was stable at 39 bps (*FY12: 40 bps*) on average reserves of £233 billion (*FY12: £229 billion*).

(i) DAC, AVIF and other

DAC, AVIF and other items amounted to an overall positive contribution of £129 million (*FY12: £8 million*). DAC and AVIF amortisation charges have reduced by £157 million, largely driven by the UK & Ireland as a result of a DAC write off in 2012 and the sale of Ark Life. The positive contribution from other items has reduced by £36 million which is mainly driven by the UK. In the UK, the current year includes a non-recurring benefit of £66 million relating to longevity assumption changes, compared to a benefit of £74 million in the prior year. This prior year benefit of £74 million included the release of a £90 million annuity longevity transaction reserve which was no longer required, offset by a £16 million adverse impact from capital management actions.

Other items also include a profit of £2 million (*FY12: £1 million*) in respect of minor operations reported under other business.

7.ii – General insurance and health

2013	UK Personal £m	UK Commercial £m	Total UK £m	Ireland £m	Total UK & Ireland £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Europe £m	Asia & Other ¹ £m	Total £m
General insurance											
Gross written premiums	2,375	1,717	4,092	290	4,382	1,419	900	2,319	1,442	22	8,165
Net written premiums	2,276	1,547	3,823	278	4,101	1,396	854	2,250	1,360	47	7,758
Net earned premiums	2,344	1,629	3,973	312	4,285	1,364	832	2,196	1,368	48	7,897
Net claims incurred	(1,347)	(1,112)	(2,459)	(200)	(2,659)	(874)	(513)	(1,387)	(951)	(97)	(5,094)
<i>Of which claims handling costs</i>			(200)	(6)	(206)			(88)	(49)		(343)
Written commission	(631)	(333)	(964)	(42)	(1,006)	(283)	(170)	(453)	(256)	(1)	(1,716)
Written expenses²	(175)	(205)	(380)	(56)	(436)	(126)	(129)	(255)	(131)	(5)	(827)
Movement in DAC	(30)	(27)	(57)	(8)	(65)	11	5	16	(3)	—	(52)
Internal reallocation of result of UK run-off business	—	4	4	—	4	—	—	—	—	(4)	—
Underwriting result	161	(44)	117	6	123	92	25	117	27	(59)	208
Longer-term investment return ³			318	18	336			135	71	7	549
Other ⁴			(4)	—	(4)			(6)	—	—	(10)
Operating profit			431	24	455			246	98	(52)	747
Health insurance											
Underwriting result					28			—	13	1	42
Longer-term investment return					6			—	1	1	8
Operating profit					34			—	14	2	50
Total operating profit					489			246	112	(50)	797
General insurance combined operating ratio											
Claims ratio	57.5%	68.2%	61.9%	64.1%	62.1%	64.0%	61.8%	63.2%	69.6%		64.5%
Commission ratio	27.7%	21.5%	25.2%	15.1%	24.5%	20.3%	19.9%	20.1%	18.8%		22.1%
Expense ratio	7.7%	13.2%	9.9%	20.0%	10.6%	9.0%	15.2%	11.3%	9.7%		10.7%
Combined operating ratio⁵	92.9%	102.9%	97.0%	99.2%	97.2%	93.3%	96.9%	94.6%	98.1%		97.3%
Assets supporting general insurance and health business											
Debt securities			3,515	994	4,509			3,098	2,255	243	10,105
Equity securities			15	—	15			301	23	—	339
Investment property			1	6	7			—	133	—	140
Cash and cash equivalents			1,490	194	1,684			95	139	51	1,969
Other ⁶			5,030	109	5,139			112	159	—	5,410
Assets at 31 December 2013			10,051	1,303	11,354			3,606	2,709	294	17,963
Debt securities			2,765	814	3,579			3,410	2,168	140	9,297
Equity securities			415	—	415			343	16	—	774
Investment property			1	7	8			—	131	—	139
Cash and cash equivalents			1,500	390	1,890			103	312	230	2,535
Other			5,690	110	5,800			147	50	—	5,997
Assets at 31 December 2012			10,371	1,321	11,692			4,003	2,677	370	18,742
Average assets			10,211	1,312	11,523			3,804	2,694	332	18,353
LTIR as % of average assets			3.2%	1.4%	3.0%			3.5%	2.7%	2.4%	3.0%

1 Asia & Other includes Aviva Re.

2 Operating expenses shown in note 3 includes claims handling costs and written expenses included in general insurance COR above, plus operating expenses of other (non-insurance) operations.

3 The UK LTIR includes benefit of £221 million (FY12: £299 million) return on the internal loan. This is lower than 2012 primarily as a result of a reorganisation of this loan during 2013.

4 Includes unwind of discount and pension scheme net finance costs.

5 COR is calculated as incurred claims expressed as a percentage of net earned premiums, plus written commissions and written expenses expressed as a percentage of net written premiums. COR is calculated using unrounded numbers so minor rounding differences may exist.

6 Includes loans and other financial investments.

7.ii – General insurance and health continued

2012	UK Personal £m	UK Commercial £m	Total UK £m	Ireland £m	Total UK & Ireland £m	Canada Personal £m	Canada Commercial £m	Total Canada £m	Europe £m	Asia & Other ¹ £m	Total £m
General insurance											
Gross written premiums	2,489	1,838	4,327	343	4,670	1,377	871	2,248	1,384	67	8,369
Net written premiums	2,397	1,665	4,062	326	4,388	1,352	824	2,176	1,295	89	7,948
Net earned premiums	2,431	1,687	4,118	335	4,453	1,333	812	2,145	1,272	90	7,960
Net claims incurred	(1,443)	(1,165)	(2,608)	(234)	(2,842)	(808)	(501)	(1,309)	(893)	(69)	(5,113)
<i>Of which claims handling costs</i>			(178)	(14)	(192)			(97)	(41)	—	(330)
Written commission	(640)	(375)	(1,015)	(36)	(1,051)	(272)	(165)	(437)	(248)	(7)	(1,743)
Written expenses²	(197)	(208)	(405)	(70)	(475)	(132)	(135)	(267)	(129)	8	(863)
Movement in DAC	(18)	(35)	(53)	(1)	(54)	6	1	7	7	(1)	(41)
Internal reallocation of result of UK run-off business	—	11	11	—	11	—	—	—	—	(11)	—
Underwriting result	133	(85)	48	(6)	42	127	12	139	9	10	200
Longer-term investment return ³			431	27	458			146	81	12	697
Other ⁴			(20)	—	(20)			(8)	—	—	(28)
Operating profit			459	21	480			277	90	22	869
Health insurance											
Underwriting result					12			—	8	(6)	14
Longer-term investment return					10			—	—	1	11
Operating profit					22			—	8	(5)	25
Total operating profit					502			277	98	17	894
General insurance combined operating ratio											
Claims ratio	59.4%	69.0%	63.3%	69.7%	63.8%	60.6%	61.7%	61.0%	70.2%		64.2%
Commission ratio	26.7%	22.5%	25.0%	11.2%	24.0%	20.1%	20.1%	20.1%	19.2%		21.9%
Expense ratio	8.2%	12.5%	10.0%	21.4%	10.8%	9.8%	16.3%	12.3%	10.0%		10.9%
Combined operating ratio⁵	94.3%	104.0%	98.3%	102.3%	98.6%	90.5%	98.1%	93.4%	99.4%		97.0%
Assets supporting general insurance and health business											
Debt securities			2,765	814	3,579			3,410	2,168	140	9,297
Equity securities			415	—	415			343	16	—	774
Investment property			1	7	8			—	131	—	139
Cash and cash equivalents			1,500	390	1,890			103	312	230	2,535
Other ⁶			5,690	110	5,800			147	50	—	5,997
Assets at 31 December 2012			10,371	1,321	11,692			4,003	2,677	370	18,742
Debt securities			2,712	1,067	3,779			3,284	2,009	299	9,371
Equity securities			120	1	121			390	17	23	551
Investment property			10	10	20			—	132	—	152
Cash and cash equivalents			1,541	126	1,667			193	334	121	2,315
Other			6,187	107	6,294			90	89	3	6,476
Assets at 31 December 2011			10,570	1,311	11,881			3,957	2,581	446	18,865
Average assets			10,471	1,316	11,787			3,980	2,629	408	18,804
LTIR as % of average assets			4.2%	2.2%	4.0%			3.7%	3.1%	3.2%	3.8%

1 Asia & Other includes Aviva Re.

2 Operating expenses shown in note 3 includes claims handling costs and written expenses included in general insurance COR above, plus operating expenses of other (non-insurance) operations.

3 The UK LTIR includes benefit of £299 million return on the internal loan.

4 Includes unwind of discount and pension scheme net finance costs.

5 COR is calculated as incurred claims expressed as a percentage of net earned premiums, plus written commissions and written expenses expressed as a percentage of net written premiums. COR is calculated using unrounded numbers so minor rounding differences may exist.

6 Includes loans and other financial investments.

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 31 December 2013 £m
Life business – continuing operations						
UK – non-profit	80,499	6,790	(6,891)	(101)	3,299	83,697
Ireland	8,781	491	(806)	(315)	(2,902)	5,564
United Kingdom & Ireland (excluding UK with-profits)	89,280	7,281	(7,697)	(416)	397	89,261
Europe	94,874	8,349	(8,338)	11	3,308	98,193
Asia	2,893	431	(406)	25	(175)	2,743
Other	1,893	90	(330)	(240)	114	1,767
	188,940	16,151	(16,771)	(620)	3,644	191,964
UK – with-profits	42,534					40,229
Total life business – continuing operations	231,474					232,193

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 2013, net outflows in UK Life (non-profit) were £101 million. New business inflows in the UK reduced in the period, reflecting the strong focus towards improving value and capital efficiency. There were also higher claims and redemptions compared to FY12 reflecting the increase in size of the annuities book in 2012 and the consequential increase in annuity payments in 2013.

Including the Aviva Platform (not included in this table), which is a secure on-line investment platform covering SIPPs, ISAs and OEICs, UK Life has seen positive inflows of £1.3 billion.

In Ireland, net outflows were £315 million reflecting the change in strategic focus. The reduction in managed assets in Ireland at FY13 reflects the disposal of Ark Life in March 2013.

Europe

Net inflows were £11 million, reflecting increased volumes and lower redemptions in France which have been 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 sterling), partly offset by the effect of the disposals of Aseval, Russia and Romania Pensions.

Asia and other

Net inflows in Asia were £25 million arising principally in Singapore. Other business net outflows of £240 million 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 31 December 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.

2013 £m	Shareholder business assets			Participating fund assets				Carrying value in the statement of financial position
	General Insurance & health & other ¹	Annuity and non-profit ²	Policyholder (unit linked assets)	UK style with profits	Continental European-style participating funds	Total assets analysed	Less assets of operation classified as held for sale	
Debt securities								
Government bonds	6,471	8,338	5,289	14,291	26,935	61,324	(1,863)	59,461
Corporate bonds	3,786	13,141	5,729	7,364	27,457	57,477	(557)	56,920
Other	202	1,422	1,817	975	3,588	8,004	—	8,004
	10,459	22,901	12,835	22,630	57,980	126,805	(2,420)	124,385
Loans								
Mortgage loans	191	16,934	—	785	1	17,911	—	17,911
Other loans	165	583	471	3,907	842	5,968	—	5,968
	356	17,517	471	4,692	843	23,879	—	23,879
Equity securities	499	501	25,836	7,970	2,574	37,380	(54)	37,326
Investment property	143	96	3,564	4,262	1,386	9,451	—	9,451
Other investments	361	647	26,563	2,229	1,651	31,451	(201)	31,250
Total as at 31 December 2013	11,818	41,662	69,269	41,783	64,434	228,966	(2,675)	226,291
Total as at 31 December 2012 (Restated)	11,508	75,894	67,179	45,586	62,879	263,046	(39,830)	223,216

¹ Of the £11.8 billion of assets 5% relates to other shareholder business assets.

² The reduction in annuity and non-profit assets compared with the 2012 position principally reflects the completion of the disposal of our US business in the second half of 2013, with a corresponding reduction in assets of operations held for sale.

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 87% are rated A or above. The assets are relatively short duration reflecting the short average duration of the liabilities. Liquidity, interest rate and foreign exchange 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, foreign exchange 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 31 December 2013, unrealised losses and impairments on the bond portfolio of £22.9 billion amounted to £0.3 billion or 1% of the portfolio. The equivalent figure for 31 December 2012 was 1%. Unrealised gains on the portfolio were £2.2 billion as at 31 December 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 £11.1 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 £1.3 billion (*FY12: £1.2 billion, including the implicit reinvestment margin of £0.2 billion*). This includes a net increase of £0.3 billion at HY 13 and explicit recognition of the £0.2 billion reinvestment margin previously held implicitly. Since HY13, commercial mortgages have performed in line with expectations with the impact of defaults offset by the release of the default allowances. The valuation allowance (including supplementary allowances) for commercial mortgages, including Healthcare and PFI mortgages of £1.3 billion equates to 124bps at 31 December 2013 (*FY12: 89bps*).

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 £1.7 billion this year from our shareholder and participating funds, the majority of which was from the Continental European style participating funds. We have also entered into hedges to protect £0.3 billion notional of Italian debt holdings within our French 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 £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

Group capital	2013 £m	2012 £m
Subordinated debt	4,370	4,337
External debt	755	802
DCI, fixed rate tier 1 notes and preference shares	1,832	1,832
External debt and preference shares	6,957	6,971
Total tangible capital employed ²	13,938	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 FY13 the tangible debt leverage ratio was 50% (*FY12: 50%*) with a small reduction in external debt and a small decrease in tangible capital employed.

8.iii – Net asset value

At the end of 2013, IFRS net asset value per share was 270 pence (*FY12: 278 pence*). This movement was driven by operating profits and profit on the disposal of subsidiaries and associates which were offset by remeasurements on pension schemes and integration and restructuring costs. In addition, payment of the dividend, movement in the value of AFS securities and other reserves and foreign exchange movements also contributed to the decrease in net asset value per share.

Total IFRS investment return variances were £100 million. For continuing operations, investment variances were £352 million adverse. This included £303 million adverse variance in the non-life businesses, reflecting short-term fluctuation in investment return and economic assumption changes driven by an increase in risk-free rates in the UK and Canada, together with other market movements impacting the Group centre investments.

In the life business, investment return variances were £49 million adverse, with narrowing credit spreads on government and corporate bonds in France, Italy and Spain more than offset by the strengthening of the commercial mortgage default provision and the effect of higher interest rates in the UK Life business.

The adverse movement on the Group's staff pension schemes of £549 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 narrowing spreads between corporate bonds and gilts, partially offset by an outperformance in the equity and property markets and a net benefit from demographic assumption changes.

IFRS	2013 £m	pence per share ²	Restated 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	2,049	70p	2,038	70p
Operating profit – discontinued operations	290	10p	239	8p
Investment return variances and economic assumption changes on life and non-life business	100	3p	(815)	(28)p
Profit/(loss) on the disposal and remeasurements of subsidiaries and associates	923	31p	(2,523)	(86)p
Goodwill impairment and amortisation of intangibles	(177)	(6)p	(1,099)	(37)p
Integration and restructuring costs	(366)	(12)p	(468)	(16)p
Exceptional items	—	—	—	—
Tax on operating profit and on other activities	(668)	(23)p	(306)	(10)p
Non-controlling interests	(143)	(5)p	(168)	(6)p
Profit after tax attributable to shareholders of Aviva plc	2,008	68p	(3,102)	(105)p
AFS securities (fair value) & other reserve movements	(840)	(29)p	323	11p
Ordinary dividends net of scrip	(429)	(15)p	(630)	(21)p
Direct capital instruments and fixed rate tier 1 notes interest and preference share dividend	(87)	(3)p	(72)	(2)p
Foreign exchange rate movements	(354)	(12)p	(184)	(6)p
Remeasurements of pension schemes	(549)	(19)p	(792)	(27)p
Other net equity movements ³	11	2p	18	(7)p
Equity attributable to shareholders of Aviva plc at 31 December¹	7,964	270p	8,204	278p

¹ Excluding preference shares

² Number of shares as at 31 December 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 445 pence (*FY12: 422 pence*). This movement was driven by operating profits, positive investment variances and profit on disposals of subsidiaries and associates partly offset by remeasurements on pension schemes, integration and restructuring costs, payment of the dividend, movement in the value of AFS securities and other reserves, foreign exchange movements and exceptional items relating to regulatory and tax changes.

Total MCEV investment return variances were £1,969 million. Of this total, £452 million relates to discontinued operations. For continuing operations, investment variances were £1,517 million primarily generated by the group's life businesses, which contributed £1,820 million, offset by adverse investment return variances in the non-life businesses of £303 million. The life investment return variances were largely due to the narrowing of credit spreads on corporate bonds and asset outperformance in the UK, together with narrowing spreads on government and corporate bonds in Italy, France and Spain.

MCEV ⁴	2013 £m	pence per share ²	Restated 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	2,433	83p	2,393	82p
Operating profit – discontinued operations	290	10p	(390)	(13)p
Investment return variances and economic assumption changes on life and non-life business	1,969	67p	1,358	46p
Profit/(loss) on the disposal and remeasurements of subsidiaries and associates	973	33p	1,094	37p
Goodwill impairment and amortisation of intangibles	(194)	(7)p	(1,143)	(39)p
Integration and restructuring costs	(357)	(12)p	(467)	(16)p
Exceptional items	(256)	(9)p	51	2p
Tax on operating profit and on other activities	(1,425)	(48)p	(1,021)	(35)p
Non-controlling interests	(529)	(18)p	(855)	(29)p
Profit after tax attributable to shareholders of Aviva plc	2,904	99p	1,020	35p
AFS securities (fair value) & other reserve movements	(813)	(29)p	119	5p
Ordinary dividends net of scrip	(429)	(15)p	(630)	(21)p
Direct capital instruments and fixed rate tier 1 notes interest and preference share dividend	(87)	(3)p	(72)	(2)p
Foreign exchange rate movements	(362)	(12)p	(58)	(2)p
Remeasurements of pension schemes	(549)	(19)p	(792)	(27)p
Other net equity movements ³	11	2p	18	(7)p
Equity attributable to shareholders of Aviva plc at 31 December¹	13,109	445p	12,434	422p

¹ Excluding preference shares

² Number of shares as at 31 December 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 17.8% (FY12: 11.2%) for FY13, primarily reflecting the impact of the significant asset write downs experienced in 2012 which reduced closing shareholders equity for that year.

	2013 %	Restated 2012 %
United Kingdom & Ireland life	16.0%	15.9%
United Kingdom & Ireland general insurance and health	8.0%	9.5%
Europe	10.9%	12.4%
Canada	17.4%	19.8%
Asia	10.1%	6.1%
Fund management	32.1%	19.5%
Corporate and Other Business	n/a	n/a
Return on total capital employed (excluding Delta Lloyd and United States)	11.0%	10.0%
Delta Lloyd	—	10.8%
United States	56.5%	5.1%
Return on total capital employed	12.0%	9.3%
Subordinated debt	5.4%	4.9%
External debt	2.2%	2.4%
Return on total equity	15.2%	10.9%
Less: Non-controlling interest	11.1%	12.0%
Direct capital instruments and fixed rate tier 1 notes	5.1%	5.6%
Preference capital	8.5%	8.5%
Return on equity shareholders' funds	17.8%	11.2%

8.v – European Insurance Groups Directive (IGD)

	UK life funds £bn	Other business £bn	31 December 2013 £bn	31 December 2012 £bn
Insurance Groups Directive (IGD) capital resources	5.8	8.6	14.4	14.4
Less: capital resources requirement	(5.8)	(5.0)	(10.8)	(10.6)
Insurance Group Directive (IGD) excess solvency	—	3.6	3.6	3.8
Cover over EU minimum (calculated excluding UK life funds)			1.7 times	1.7 times

The EU Insurance Groups Directive (IGD) regulatory capital solvency surplus has decreased by £0.2 billion since FY12 to £3.6 billion. 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	1.2
Dividends and appropriations	(0.5)
Market movements including foreign exchange ¹	(0.4)
Pension scheme funding	(0.1)
Disposals	0.2
Poland pension legislative changes	(0.3)
Increase in capital resources requirement	(0.1)
Other regulatory adjustments	(0.2)
Estimated IGD solvency surplus at 31 December 2013	3.6

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

	2013 £bn	Equities down 10%	Interest rates up 1%
Sensitivities on IGD	3.6	(0.0)	(0.8)

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

The Group's IGD surplus is resilient to global equity market falls or a 1% global interest rate rise. The Group's IGD surplus would be approximately £3.3 billion in the event of a 40% fall in equity markets from the 31 December 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 protection to the Group's IGD surplus 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

	2013 £bn	2012 £bn
Available economic capital	18.4	16.6
Standalone required economic capital	(15.9)	(18.1)
Diversification benefit	5.8	6.8
Diversified required economic capital	(10.1)	(11.3)
Estimated economic capital position at 31 December	8.3	5.3
Cover Ratio	182%	147%
Pro forma impacts		1.8
Estimated pro forma economic capital position at 31 December		7.1
Pro forma cover ratio		172%

Analysis of change in economic capital

	2013 £bn	2012 £bn
Economic capital surplus position at 1 January	5.3	3.6
MCEV operating earnings	1.4	0.9
Economic variances	0.7	0.7
Exceptional and other non-operating items	(0.9)	(0.6)
Dividend and appropriations, and shares issued in lieu of dividends	(0.5)	(0.7)
Net impact of fixed rate note issuance/call	—	0.2
Available capital benefits from disposals	1.3	—
Economic capital staff pension scheme	0.3	—
UK increase in commercial mortgage default allowance	(0.3)	—
Other	(0.2)	0.4
Change in available economic capital	1.8	0.9
Impact of trading operations and other	0.7	0.4
Economic capital staff pension scheme	(0.7)	—
Impact of changes in Group hedging	(0.2)	0.2
Capital requirement benefits from disposals	1.4	0.2
Change in diversified required economic capital	1.2	0.8
Estimated economic capital surplus position at 31 December	8.3	5.3
Pro forma impacts	—	1.8
Estimated pro forma economic capital surplus position at 31 December	—	7.1

The estimated economic capital position has increased by £3.0 billion to £8.3 billion at 31 December 2013 with a corresponding increase in the cover ratio from 147% to 182%. The improvement during the period in part reflects the crystallisation of the year-end 2012 pro forma impacts of £1.8 billion relating to the completion of the US, Delta Lloyd, Aseval and other disposals, partly offset by a strengthening of the pension scheme basis. In addition, further benefits of £1.2 billion have been driven by underlying profits, favourable market movement and increases in US sale proceeds, partly offset by the payment of dividends, increase in UK commercial mortgage default allowances and the impact of exceptional items, mainly reforms to Poland Pension legislation.

The estimated economic capital position at FY13 includes the strengthening of the allowance for staff pension scheme deficits from five years of stressed contributions to the full funding basis deficit under stressed conditions. The impact of this when combined with changes to the funding basis assumptions and market movements results in a reduction in economic capital surplus of £0.4 billion. The move to a full funding basis is a further strengthening from the ten years of stressed contributions, which is reflected in the year-end 2012 pro forma result.

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

	2013 £bn	2012 £bn
Credit risk ¹	2.5	2.3
Equity risk ²	2.1	1.7
Interest rate risk ³	0.2	0.1
Other market risk ⁴	1.4	1.5
Life insurance risk ⁵	1.0	1.0
General insurance risk ⁶	0.8	0.9
Other risk ⁷	2.1	2.4
Total (Pro forma for year-end 2012 only)	10.1	9.9
Total	10.1	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 year.

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.

Financial supplement

	Page
A Income & expenses	30
B IFRS financial statements	35
C Capital & liquidity	94
D Analysis of assets	103
E VNB & Sales analysis	127
F MCEV financial statements	133

In this section

A Income & expenses	30
Reconciliation of Group operating profit to profit/(loss) after tax – IFRS basis	30
A1 Other operations	31
A2 Corporate centre	31
A3 Group debt costs and other interest	31
A4 Life business: Investment return variances and economic assumption changes	32
A5 Non-life business: Short-term fluctuation in return on investments	33
A6 General Insurance and Health business: Economic assumption changes	34
A7 Impairment of goodwill, associates, joint ventures and other amounts expensed	34
A8 Profit/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	34
A9 Exceptional items	34
A10 Share of the results of Delta Lloyd as an associate	34

Income & expenses

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

For the year ended 31 December 2013

	2013 £m			Restated ¹ 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	952	—	952	892	—	892
Europe	851	—	851	869	—	869
Asia	96	—	96	69	—	69
Other	2	272	274	1	200	201
Total life business	1,901	272	2,173	1,831	200	2,031
General insurance and health						
United Kingdom & Ireland	489	—	489	502	—	502
Europe	112	—	112	98	—	98
Canada	246	—	246	277	—	277
Asia	1	—	1	(5)	—	(5)
Other	(51)	—	(51)	22	—	22
Total general insurance and health	797	—	797	894	—	894
Fund management						
Aviva Investors	68	31	99	39	55	94
United Kingdom	23	—	23	11	—	11
Asia	2	—	2	1	—	1
Total fund management	93	31	124	51	55	106
Other						
Other operations (note A1)	(90)	(4)	(94)	(177)	(4)	(181)
Market operating profit	2,701	299	3,000	2,599	251	2,850
Corporate centre (note A2)	(150)	—	(150)	(136)	—	(136)
Group debt costs and other interest (note A3)	(502)	(9)	(511)	(537)	(12)	(549)
Operating profit before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	2,049	290	2,339	1,926	239	2,165
Share of operating profit (before tax) of Delta Lloyd as an associate (note A10)	—	—	—	112	—	112
Operating profit before tax attributable to shareholders' profits	2,049	290	2,339	2,038	239	2,277
Integration and restructuring costs	(363)	(3)	(366)	(461)	(7)	(468)
Operating profit before tax attributable to shareholders' profits after integration and restructuring costs	1,686	287	1,973	1,577	232	1,809
Adjusted for the following:						
Investment return variances and economic assumption changes on life business (note A4)	(49)	452	403	(620)	342	(278)
Short-term fluctuation in return on investments on non-life business (note A5)	(336)	—	(336)	7	—	7
Economic assumption changes on general insurance and health business (note A6)	33	—	33	(21)	—	(21)
Impairment of goodwill, associates and joint ventures and other amounts expensed (note A7)	(77)	—	(77)	(60)	(782)	(842)
Amortisation and impairment of intangibles	(91)	(9)	(100)	(128)	(129)	(257)
Profit/(loss) on the disposal and remeasurement of subsidiaries and associates (note A8)	115	808	923	(164)	(2,359)	(2,523)
Exceptional items (note A9)	—	—	—	—	—	—
Non-operating items before tax (excluding Delta Lloyd as an associate)	(405)	1,251	846	(986)	(2,928)	(3,914)
Share of Delta Lloyd's non-operating items (before tax) as an associate (note A10)	—	—	—	(523)	—	(523)
Non-operating items before tax	(405)	1,251	846	(1,509)	(2,928)	(4,437)
Share of Delta Lloyd's tax expense, as an associate (note A10)	—	—	—	107	—	107
Profit/(loss) before tax attributable to shareholders' profits	1,281	1,538	2,819	175	(2,696)	(2,521)
Tax on operating profit	(534)	(83)	(617)	(499)	(78)	(577)
Tax on other activities	131	(182)	(51)	238	(74)	164
	(403)	(265)	(668)	(261)	(152)	(413)
Profit/(loss) for the period	878	1,273	2,151	(86)	(2,848)	(2,934)

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 with a corresponding decrease in other comprehensive income.

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

Other Group Operating Profit Items

A1 – Other operations

	2013 £m	Restated 2012 £m
United Kingdom & Ireland life	(14)	(14)
United Kingdom & Ireland general insurance	(6)	(6)
Europe	(17)	(13)
Asia	(12)	(12)
Other Group operations ¹	(41)	(132)
Total – continuing operations	(90)	(177)
Total – discontinued operations	(4)	(4)
Total	(94)	(181)

¹ Other Group operations include Group and head office costs.

In 2013 we found evidence of improper allocation of trades in fixed income securities in Aviva Investors by two former employees. This occurred between 2006 - 2012. These breaches of our dealing policy involved late allocation of trades which favoured external hedge funds to the detriment of certain Aviva UK Life funds. The relevant regulatory authorities were notified at an early stage and have been kept fully apprised of the issue.

A thorough review of internal control processes relating to the dealing policy has been carried out by management and reviewed by PwC. Measures to improve controls have been implemented.

There is a total adverse impact on Group operating profit from this activity of £132 million. This reflects the compensation of £126 million expected to be claimed in respect of these breaches and other associated costs of £6 million. These amounts are shown in operating profit in 'Other Group operations'.

Of this total, £96 million reflects the compensation expected to be claimed from, and other associated costs within, Aviva Investors. Compensation of £36 million relating to this matter is expected to be claimed from a group holding company.

'Other Group operations' also includes the Ireland pension scheme curtailment gain of £145 million.

A2 – Corporate centre

	2013 £m	2012 £m
Project spend	(27)	(23)
Central spend and share award costs	(123)	(113)
Total	(150)	(136)

A3 – Group debt costs and other interest

	2013 £m	Restated 2012 £m
External debt		
Subordinated debt	(305)	(294)
Other	(23)	(23)
Total external debt	(328)	(317)
Internal lending arrangements	(231)	(307)
Net finance income on main UK pension scheme	57	87
Total – continuing operations	(502)	(537)
Total – discontinued operations	(9)	(12)
Total	(511)	(549)

Non-operating profit items

A4 – Life Business: Investment 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	2013 £m	2012 £m
Investment variances and economic assumptions – continuing operations	(49)	(620)
Investment variances and economic assumptions – discontinued operations	452	342
Investment variances and economic assumptions	403	(278)

For continuing operations, investment variances were £49 million negative (*FY12: £620 million negative*). Negative variances in the UK resulting from increasing the allowance for credit defaults on commercial mortgages were partially offset by the positive effect of narrowing spreads on government and corporate bonds in Italy and Spain together with reduction in cost of guarantees in France.

In 2012, for continuing operations, negative investment variances of £620 million mainly related to the UK. The total for the UK included increasing the allowance for credit risk defaults on UK commercial mortgages together with some adverse experience on the portfolio and the cost of de-risking activities. Positive variances in Spain and France were offset by a negative variance in Italy.

The positive variance of £452 million (*FY12: £342 million*) for discontinued operations relates to the US business disposed of in 2013, 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	
	2013 %	2012 %	2013 %	2012 %
United Kingdom	5.4	5.8	3.9	4.3
Eurozone	5.1	5.9	3.6	4.4

The expected return on equities and properties has been calculated by reference to the opening 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 risks; this includes an adjustment for credit risk on all Eurozone sovereign debt. Where such securities are classified as available for sale (AFS), 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

	2013 £m	2012 £m
General Insurance and health – continuing operations		
Analysis of investment income:		
– Net investment income	349	823
– Foreign exchange on unrealised gains/losses and other charges	(35)	(97)
	314	726
Analysed between:		
– Longer-term investment return, reported within operating profit	557	708
– Short-term fluctuations in investment return, reported outside operating profit	(243)	18
	314	726
Short-term fluctuations:		
– General insurance and health	(243)	18
– Other operations ¹	(93)	(11)
Total short-term fluctuations	(336)	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 the corporate restructure 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 2013 compared with 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:

	2013 £m	2012 £m
Debt securities	10,105	9,297
Equity securities	339	774
Properties	140	139
Cash and cash equivalents	1,969	2,535
Other	5,410	5,997
Assets supporting general insurance and health business	17,963	18,742
Assets supporting other non-life business ¹	695	206
Total assets supporting non-life business	18,658	18,948

¹ For 2013 represents assets backing non-life business in the France holding company and Group centre investments, including the centre hedging programme. For 2012 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	
	2013 %	2012 %	2013 %	2012 %
United Kingdom	5.4%	5.8%	3.9%	4.3%
Eurozone	5.1%	5.9%	3.6%	4.4%
Canada	5.8%	5.8%	4.3%	4.3%

The underlying reference rates are shown in F17 within the MCEV financial supplement.

A6 – General insurance and health business: Economic assumption changes

Economic assumption changes of £33 million favourable (*FY12: £21 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 (*FY12: £60 million*) reflecting a £48 million impairment in Europe and a £29 million impairment in Asia, arising from market conditions during the year.

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

The profit on disposal and remeasurement of subsidiaries, joint ventures and associates from continuing operations is £115 million (*FY12: £164 million loss*).

This includes profits on the disposals of the Irish long-term business Ark Life (£87 million), the Spanish long-term business Aseval (£197 million), the Group's Malaysian joint ventures (£39 million), Russia (£1 million) and losses on the disposals of other operations of £(2) million. This is partly offset by a loss on remeasurement relating to the Italian long-term business Eurovita of £178 million (Aviva's share is £74 million), our joint venture in South Korea Woori Aviva Life Insurance Co., Ltd., of £20 million and Turkey GI of £9 million which have been classified as held for sale.

Profit on the disposal and remeasurement of subsidiaries relating to discontinued operations is £808 million (*FY12: £2,359 loss on remeasurement*). This includes £644 million of currency translation and investment valuation reserves recycled to the income statement on completion of the sale. Further detail is provided in B5.

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. Exceptional items for FY13 were £nil (*FY12: £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 (*FY12: £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 credit*).

IFRS Financial statements

In this section

Consolidated income statement	36
Consolidated statement of comprehensive income	37
Consolidated statement of changes to equity	38
Consolidated statement of financial position	39
Consolidated statement of cash flows	40

Notes to the consolidated financial statements

B1(i) Basis of preparation	41
B1(ii) New standards, interpretations and amendments to published standards that have been adopted by the Group	42
B2 Analysis of the impact of new standards and amendments to published standards that have been adopted by the Group	44
B3 Exchange rates	45
B4 Presentation changes	46
B5 Subsidiaries	46
B6 Segmental information	51
B7 Tax	59
B8 Earnings per share	61
B9 Dividends and appropriations	62
B10 Insurance liabilities	63
B11 Liability for investment contracts	73
B12 Reinsurance assets	74
B13 Effect of changes in assumptions and estimates during the year	75
B14 Unallocated divisible surplus	75
B15 Borrowings	77
B16 Pension obligations	77
B17 Cash and cash equivalents	78
B18 Related party transactions	79
B19 Risk management	80
B20 Direct capital instruments and fixed rate tier 1 notes	91
B21 Subsequent events	91

Consolidated financial statements

Consolidated income statement

For the year ended 31 December 2013

		2013 £m		Restated ^{2,3} 2012 £m	
	Note	Continuing operations	Discontinued operations ¹	Continuing operations	Discontinued operations ¹
Income					
Gross written premiums		22,035	1,589	22,744	3,796
Premiums ceded to reinsurers		(1,546)	(100)	(1,571)	(207)
Premiums written net of reinsurance		20,489	1,489	21,173	3,589
Net change in provision for unearned premiums		134	—	(16)	—
Net earned premiums		20,623	1,489	21,157	3,589
Fee and commission income		1,279	28	1,273	23
Net investment income		12,509	2,340	21,135	2,241
Share of profit/(loss) after tax of joint ventures and associates		120	—	(255)	—
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates		115	808	(164)	(2,359)
		34,646	4,665	43,146	3,494
Expenses					
Claims and benefits paid, net of recoveries from reinsurers		(22,093)	(2,037)	(23,601)	(2,721)
Change in insurance liabilities, net of reinsurance		2,493	(312)	(430)	(1,566)
Change in investment contract provisions		(7,050)	(31)	(4,450)	(77)
Change in unallocated divisible surplus		280	—	(6,316)	—
Fee and commission expense		(3,975)	(438)	(4,457)	(498)
Other expenses		(2,220)	(293)	(2,843)	(1,307)
Finance costs		(609)	(16)	(653)	(21)
		(33,174)	(3,127)	(42,750)	(6,190)
Profit/(loss) before tax		1,472	1,538	396	(2,696)
Tax attributable to policyholders' returns	B7	(191)	—	(221)	—
Profit/(loss) before tax attributable to shareholders' profits		1,281	1,538	175	(2,696)
Tax expense	B7	(594)	(265)	(482)	(152)
Less: tax attributable to policyholders' returns	B7	191	—	221	—
Tax attributable to shareholders' profits		(403)	(265)	(261)	(152)
Profit/(loss) after tax		878	1,273	(86)	(2,848)
Profit/(loss) from discontinued operations		1,273		(2,848)	
Profit/(loss) for the year		2,151		(2,934)	
Attributable to:					
Equity shareholders of Aviva plc		2,008		(3,102)	
Non-controlling interests		143		168	
Profit/(loss) for the year		2,151		(2,934)	
Earnings/(loss) per share					
Basic (pence per share)	B8	65.3p		(109.1)p	
Diluted (pence per share)		64.5p		(109.1)p	
Continuing operations – Basic (pence per share)					
Continuing operations – Diluted (pence per share)		22.0p		(11.2)p	
		21.8p		(11.2)p	

¹ Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

² Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative period in these financial statements. This has led to an increase in profit before tax for continuing operations of £150 million for 2012 with a corresponding decrease in other comprehensive income. For further detail of the impact of the restatement please see note B2.

³ Following the adoption of IFRS 10 'Consolidated financial statements' the Group has retrospectively applied the change to the comparative period in these financial statements. For further details of the impact of the restatement please see note B2.

Consolidated statement of comprehensive income

For the year ended 31 December 2013

	2013 £m	Restated ² 2012 £m
Profit/(loss) for the year from continuing operations	878	(86)
Profit/(loss) for the year from discontinued operations¹	1,273	(2,848)
Total profit/(loss) for the year	2,151	(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 gains	19	27
Fair value gains transferred to profit on disposals	1	1
Share of other comprehensive income of joint ventures and associates	(37)	14
Foreign exchange rate movements	(35)	(200)
Aggregate tax effect – shareholder tax on items that may be reclassified subsequently to the income statement	(14)	8
<i>Items that will not be reclassified to income statement</i>		
Owner occupied properties – fair value losses	(2)	(3)
Remeasurements of pension schemes	(674)	(980)
Aggregate tax effect – shareholder tax on items that will not be reclassified subsequently to the income statement	125	189
Other comprehensive income, net of tax from continuing operations	(617)	(944)
Other comprehensive income, net of tax from discontinued operations¹	(319)	68
Total other comprehensive income, net of tax	(936)	(876)
Total comprehensive income for the year from continuing operations	261	(1,030)
Total comprehensive income for the year from discontinued operations¹	954	(2,780)
Total comprehensive income for the year	1,215	(3,810)
Attributable to:		
Equity shareholders of Aviva plc	1,038	(3,942)
Non-controlling interests	177	132
	1,215	(3,810)

¹ Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

² Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative period in these financial statements. This has led to an increase in profit before tax of £150 million for 2012 with a corresponding decrease in other comprehensive income. For further details of the impact of the restatement please see note B2.

Consolidated statement of changes in equity

For the year ended 31 December 2013

	Ordinary share capital £m	Preference share capital £m	Share premium £m	Merger reserve £m	Shares held by employee trusts £m	Other Reserves ¹ £m	Retained earnings £m	Equity attributable to shareholders of Aviva plc £m	DCI and Fixed rate tier 1 notes £m	Non- controlling interests £m	Total equity £m
Balance at 1 January	736	200	1,165	3,271	(32)	1,675	1,389	8,404	1,382	1,574	11,360
Profit for the year	—	—	—	—	—	—	2,008	2,008	—	143	2,151
Other comprehensive income	—	—	—	—	—	(421)	(549)	(970)	—	34	(936)
Total comprehensive income for the year	—	—	—	—	—	(421)	1,459	1,038	—	177	1,215
Dividends and appropriations	—	—	—	—	—	—	(538)	(538)	—	—	(538)
Capital contributions from non-controlling interests	—	—	—	—	—	—	—	—	—	1	1
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	(134)	(134)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	—	—	—	—	—	(803)	1	(802)	—	—	(802)
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—	—	—	—	(147)	(147)
Shares acquired by employee trusts	—	—	—	—	(32)	—	—	(32)	—	—	(32)
Shares distributed by employee trusts	—	—	—	—	33	—	(28)	5	—	—	5
Reserves credit for equity compensation plans	—	—	—	—	—	37	—	37	—	—	37
Shares issued under equity compensation plans	—	—	—	—	—	(43)	43	—	—	—	—
Aggregate tax effect – shareholder tax	—	—	—	—	—	30	22	52	—	—	52
Balance at 31 December	736	200	1,165	3,271	(31)	475	2,348	8,164	1,382	1,471	11,017

For the year ended 31 December 2012 (restated¹)

	Ordinary share capital £m	Preference share capital £m	Share premium £m	Merger reserve £m	Shares held by employee trusts £m	Other Reserves £m	Retained earnings £m	Equity attributable to shareholders of Aviva plc £m	DCI and Fixed rate tier 1 notes £m	Non- controlling interests £m	Total equity £m
Balance at 1 January	726	200	1,173	3,271	(43)	1,562	5,954	12,843	990	1,530	15,363
Loss/(Profit) for the year	—	—	—	—	—	—	(3,102)	(3,102)	—	168	(2,934)
Other comprehensive income	—	—	—	—	—	(48)	(792)	(840)	—	(36)	(876)
Total comprehensive income for the year	—	—	—	—	—	(48)	(3,894)	(3,942)	—	132	(3,810)
Dividends and appropriations	—	—	—	—	—	—	(847)	(847)	—	—	(847)
Shares issued in lieu of dividends	9	—	(9)	—	—	—	127	127	—	—	127
Capital contributions from non-controlling interests	—	—	—	—	—	—	—	—	—	20	20
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	(102)	(102)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	—	—	—	—	—	187	—	187	—	—	187
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—	—	—	—	(6)	(6)
Shares acquired by employee trusts	—	—	—	—	(33)	—	—	(33)	—	—	(33)
Shares distributed by employee trusts	—	—	—	—	44	—	(36)	8	—	—	8
Reserves credit for equity compensation plans	—	—	—	—	—	42	—	42	—	—	42
Shares issued under equity compensation plans	1	—	1	—	—	(68)	67	1	—	—	1
Aggregate tax effect – shareholder tax	—	—	—	—	—	—	18	18	—	—	18
Issue of fixed rate tier 1 notes	—	—	—	—	—	—	—	—	392	—	392
Balance at 31 December	736	200	1,165	3,271	(32)	1,675	1,389	8,404	1,382	1,574	11,360

¹ Following the adoption of the revised IAS 19 'Employee benefits' the Group has retrospectively applied the changes to the comparative period in these financial statements. This has led to an increase in profit before tax of £150 million for 2012 with a corresponding decrease in other comprehensive income. For further details of the impact of the restatement please see note B2.

Consolidated statement of financial position

As at 31 December 2013

	Note	2013 £m	Restated ¹ 2012 £m
Assets			
Goodwill		1,476	1,520
Acquired value of in-force business and intangible assets		1,068	1,084
Interests in, and loans to, joint ventures		1,200	1,390
Interests in, and loans to, associates		267	265
Property and equipment		313	391
Investment property		9,451	9,939
Loans		23,879	24,537
Financial investments		192,961	188,743
Reinsurance assets	B12	7,220	6,684
Deferred tax assets		244	188
Current tax assets		76	67
Receivables		7,060	7,476
Deferred acquisition costs and other assets		3,051	3,778
Prepayments and accrued income		2,498	2,700
Cash and cash equivalents		24,999	23,102
Assets of operations classified as held for sale		3,113	42,603
Total assets		278,876	314,467
Equity			
Capital			
Ordinary share capital		736	736
Preference share capital		200	200
		936	936
Capital reserves			
Share premium		1,165	1,165
Merger reserve		3,271	3,271
		4,436	4,436
Shares held by employee trusts		(31)	(32)
Other reserves		475	1,675
Retained earnings		2,348	1,389
Equity attributable to shareholders of Aviva plc		8,164	8,404
Direct capital instruments and fixed rate tier 1 notes		1,382	1,382
Non-controlling interests		1,471	1,574
Total equity		11,017	11,360
Liabilities			
Gross insurance liabilities	B10	110,555	113,091
Gross liabilities for investment contracts	B11	116,058	110,494
Unallocated divisible surplus	B14	6,713	6,931
Net asset value attributable to unitholders		10,362	9,983
Provisions	B16	984	1,119
Deferred tax liabilities		563	547
Current tax liabilities		116	112
Borrowings		7,819	8,179
Payables and other financial liabilities		9,194	9,398
Other liabilities		2,472	1,842
Liabilities of operations classified as held for sale		3,023	41,411
Total liabilities		267,859	303,107
Total equity and liabilities		278,876	314,467

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 result for any year presented as a result of this restatement.

Consolidated statement of cash flows

For the year ended 31 December 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.

	2013 £m	Restated ¹ 2012 £m
Cash flows from operating activities		
Cash generated from continuing operations	2,541	2,881
Tax paid	(463)	(428)
Net cash from operating activities – continuing operations	2,078	2,453
Net cash from operating activities – discontinued operations²	1,919	46
Total net cash from operating activities	3,997	2,499
Cash flows from investing activities		
Acquisitions of, and additions to, subsidiaries, joint ventures and associates, net of cash acquired	—	(129)
Disposals of subsidiaries, joint ventures and associates, net of cash transferred	377	421
New loans to joint ventures and associates	(6)	(4)
Repayment of loans to joint ventures	25	12
Net new loans to joint ventures and associates	19	8
Purchases of property and equipment	(30)	(220)
Proceeds on sale of property and equipment	56	43
Purchases of intangible assets	(59)	(128)
Net cash from/(used in) investing activities – continuing operations	363	(5)
Net cash used in investing activities – discontinued operations²	(1,588)	(10)
Total net cash used in investing activities	(1,225)	(15)
Cash flows from financing activities		
Proceeds from issue of ordinary shares and fixed rate tier 1 notes, net of transaction costs	—	392
Treasury shares purchased for employee trusts	(32)	(33)
New borrowings drawn down, net of expenses	2,201	2,529
Repayment of borrowings	(2,441)	(2,513)
Net drawdown/(repayment) of borrowings	(240)	16
Interest paid on borrowings	(605)	(665)
Preference dividends paid	(17)	(17)
Ordinary dividends paid	(429)	(630)
Coupon payments on direct capital instruments and fixed rate tier 1 notes	(92)	(73)
Capital contributions from non-controlling interests of subsidiaries	1	20
Dividends paid to non-controlling interests of subsidiaries	(134)	(102)
Net cash used in financing activities – continuing operations	(1,548)	(1,092)
Net cash from/(used in) financing activities – discontinued operations²	19	(27)
Total net cash used in financing activities	(1,529)	(1,119)
Total net increase in cash and cash equivalents	1,243	1,365
Cash and cash equivalents at 1 January	23,453	22,401
Effect of exchange rate changes on cash and cash equivalents	161	(313)
Cash and cash equivalents at 31 December	24,857	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.

² Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

B1(i) Basis of preparation

(a) The results in this preliminary announcement have been taken from the Group's 2013 Annual Report and Accounts which will be available on the Company's website on 26 March 2014. The consolidated financial statements have been prepared and approved by the directors in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and as endorsed by the European Union (EU), and those parts of the Companies Act 2006 applicable to those reporting under IFRS.

The basis of preparation and summary of accounting policies applicable to the Group's consolidated financial statements can be found in the Accounting policies section of the 2013 Annual report and accounts. The Group has adopted new standards, interpretations and amendments to published standards as described in B1(ii).

The preliminary announcement for the year ended 31 December 2013 does not constitute statutory accounts as defined in Section 434 of the Companies Act 2006. The results on an IFRS basis for full year 2013 and 2012 have been audited by PricewaterhouseCoopers LLP (PwC). PwC have reported on the 2013 and 2012 consolidated financial statements. Both reports were unqualified and neither contained a statement under section 498 (2) or (3) of the Companies Act 2006. The Group's 2012 report and accounts have been filed with the Registrar of Companies.

After making enquiries, the directors have a reasonable expectation that the Group as a whole has 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 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 these 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.

See B4 for presentation changes to the consolidated financial statements.

B1(ii) New standards, interpretations and amendments to published standards that have been adopted by the Group

The Group has adopted the following new standards or amendments to standards which became effective for financial years beginning on or after 1 January 2013.

i) IFRS 10, Consolidated Financial Statements

IFRS 10 replaces the portion of IAS 27 *Consolidated and Separate Financial Statements* that addressed the accounting for consolidated financial statements. It also supersedes SIC-12 *Consolidation – Special Purpose Entities* and establishes a single control model that applies to all entities. IFRS 10 sets out the requirements for the preparation and presentation of consolidated financial statements, requiring an entity to consolidate entities it controls. The standard changes the definition of control and the new criteria for control is outlined in the Accounting policies section of the 2013 Annual report and accounts. 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 or loss for the current or prior year or on equity reported. There is no material impact on the total assets or liabilities in the comparative period. The effect on amounts previously reported at 31 December 2012 is set out in B2.

ii) IFRS 11, Joint Arrangements

IFRS 11 replaces IAS 31 *Interests in Joint Ventures* and SIC-13 *Jointly-controlled Entities – Non-monetary Contributions by Venturers*. IFRS 11 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 consolidated financial statements in the current or prior period.

iii) IFRS 12, Disclosure of Interests in Other Entities

IFRS 12 includes the disclosure requirements for all forms of interests in other entities, including joint arrangements, associates, and structured entities. The adoption of IFRS 12 has resulted in significant additional disclosures in respect of these interests. The standard has been applied retrospectively, with disclosure for the comparative period (except for disclosure on interests in unconsolidated structured entities) in line with the transitional provision of the standard. There is no impact on the Group's profit or loss for the current or prior period or on the equity reported.

iv) IFRS 13, Fair Value Measurement

IFRS 13 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 and have no impact on the profit or loss for the current or prior period or on equity reported. IFRS 13 also requires enhanced disclosures about fair value measurement, some of which replace existing disclosure requirements in other standards, including IFRS 7 *Financial Instruments: Disclosures*. IFRS 13 has been adopted and applied prospectively in accordance with the standard.

v) IAS 1, Presentation of Financial Statements (Amended)

The amendments to IAS 1 require the grouping of items presented in other comprehensive income according to whether they will subsequently be reclassified (or recycled) to income statement in the future. The criteria when items are required to be reclassified from other comprehensive income to income statement are set out in the accounting policies section of the 2013 Annual report and accounts. The adoption of the amendments to IAS 1 results in a revised presentation of the statement of comprehensive income and is applied retrospectively. It has no impact on the profit or loss for the current or prior period or on equity reported.

vi) IAS 19, Employee Benefits (Revised)

The amendment revises requirements for pensions and other post-retirement benefits, termination benefits and other employee benefits. The key changes include the revision of the calculation of the finance cost, enhanced disclosures surrounding the characteristics and risk profile of defined benefit plans, and a requirement to include all actuarial gains and losses immediately in other comprehensive income which is already in line with the Group's current policy. The key impact of the revised standard on the Group's 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 income (or expense). This is based on the net defined benefit asset (or liability) at the start of the year multiplied by the discount rate used at that point to measure the pension obligation. There is no change in the method to determine the discount rate. Net interest income is credited to investment income, whereas net interest expense is charged to finance cost. 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. These are recognised in other comprehensive income with no subsequent recycling to the income statement. Amounts recorded in the income statement are therefore limited to service costs, and the net interest income/expense. The revised standard has been applied retrospectively in accordance with the transitional provision of the standard. This has resulted in an increase in profit before tax of £150 million for the year ended 31 December 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. There is no impact on reported equity in the current or prior period. The effect on amounts previously reported is set out in B2.

(vii) Amendments to IFRS 7, Financial Instruments – Disclosures

The amendments include enhanced disclosures to enable users of the financial statements to evaluate the effect or potential effect of netting arrangements in the statement of financial position. The new disclosures are required for all recognised financial instruments that are set off in accordance with IAS 32, *Financial Instruments: Presentation*. The disclosures also apply to recognised financial instruments that are subject to an enforceable master netting arrangement or similar agreement. The standard has been applied retrospectively but has no impact on the Group's profit for the current or prior period or on the equity reported.

(viii) IAS 27, Separate Financial Statements (2011) and IAS 28, Investments in Associates and Joint Ventures (2011)

IAS 27 *Consolidated and Separate Financial Statements* (2003) was superseded by IFRS 10 which addresses the requirements for consolidated financial statements and by revised IAS 27 *Separate Financial Statements (2011)* which addresses the amended requirements for separate financial statements. IAS 28 has been revised to include the application of the equity method for joint ventures as well as associates. Joint ventures are required to be equity accounted following the issuance of IFRS 11. There are no implications for the Group's consolidated financial statements.

(ix) Improvements to IFRSs 2009-2011

These improvements to IFRSs consist of amendments to five IFRSs, including IAS 1 *Presentation of Financial Statements*, IAS 32 *Financial Instruments – Presentation*, and IAS 34 *Interim Financial Reporting*. The amendments clarify existing guidance and do not give rise to a change in existing accounting practice. There is no impact on the Group's consolidated financial statements.

In addition, the following amendments to existing standards have been issued, are effective for accounting periods beginning on or after 1 January 2014 and have been adopted by the Group.

(i) Amendments to IAS 36, Impairment of Assets

The amendments clarify disclosure requirements in respect of the recoverable amount of impaired non-financial assets if the amount is based on fair value less costs to sell. These amendments have been early adopted by the Group, with no significant impact on the Group's consolidated financial statements. The amendments have been endorsed by the EU.

Notes to the consolidated financial statements

B2 – Analysis of the impact of new standards and amendments to published standards that have been adopted by the Group

(a) Impact of changes in accounting policies/standards on the consolidated income statement

	2012			
	As previously 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	43,095	(34)	85	43,146
<i>Effect of change in policy analysed as:</i>				
Net investment income	21,106	(56)	85	21,135
Share of loss after tax of joint ventures and associates	(277)	22	—	(255)
Total expenses	(42,849)	34	65	(42,750)
<i>Effect of change in policy analysed as:</i>				
Fee and commission expense	(4,472)	15	—	(4,457)
Other expenses	(2,845)	2	—	(2,843)
Finance costs	(735)	17	65	(653)
Profit before tax	246	—	150	396
Tax attributable to policyholders' returns	(221)	—	—	(221)
Tax attributable to shareholders' profits	(227)	—	(34)	(261)
Loss after tax	(202)	—	116	(86)
Loss after tax from discontinued operations	(2,848)	—	—	(2,848)
Loss for the year	(3,050)	—	116	(2,934)
Loss for the year attributable to:				
Equity shareholders of Aviva plc	(3,218)	—	116	(3,102)
Non-controlling interests	168	—	—	168
Earnings per share¹				
Basic earnings per share	(113.1)p	—	4.0p	(109.1)p
Diluted earnings per share	(113.1)p	—	4.0p	(109.1)p

¹ From continuing and discontinued operations.

(b) Impact of changes in accounting policies/standards on the consolidated statement of comprehensive income

	2012			
	As previously 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 year	(3,810)	—	—	(3,810)
Comprises:				
Total loss for the year	(3,050)	—	116	(2,934)
Total other comprehensive income, net of tax	(760)	—	(116)	(876)
Total other comprehensive income, net of tax analysed as:				
From continuing operations	(828)	—	(116)	(944)
From discontinued operations	68	—	—	68
<i>Effect of change in policy analysed as:</i>				
Remeasurement of pension schemes ²	(830)	—	(150)	(980)
Aggregate tax effect – shareholder tax	163	—	34	197

² Including actuarial gains/(losses) on pension schemes.

B2 – Analysis of the impact of new standards and amendments to published standards that have been adopted by the Group continued

(c) Impact of changes in accounting policies on the consolidated statement of financial position

	2012			
	As previously reported £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m
Total assets	315,689	(1,222)	—	314,467
<i>Effect of change in policy analysed as:</i>				
Interests in, and loans to, joint ventures and associates	1,708	(53)	—	1,655
Investment property	10,815	(876)	—	9,939
Financial investments	189,078	(335)	—	188,743
Receivables	7,617	(141)	—	7,476
Deferred acquisition costs and other assets	3,799	(21)	—	3,778
Prepayments and accrued income	2,701	(1)	—	2,700
Cash and cash equivalents	22,897	205	—	23,102
Total equity and liabilities	315,689	(1,222)	—	314,467
Total equity	11,360	—	—	11,360
Total liabilities	304,329	(1,222)	—	303,107
<i>Effect of change in policy analysed as:</i>				
Net asset value attributable to unit holders	11,146	(1,163)	—	9,983
Borrowings	8,194	(15)	—	8,179
Payables and other financial liabilities	9,441	(43)	—	9,398
Other liabilities	1,843	(1)	—	1,842

There is no overall impact from the adoption of these standards on the consolidated statement of changes in equity reported at 31 December 2012. As shown in the impact of changes in accounting policies / standards on the consolidated statement of comprehensive income table in 1(b) above, the favourable impact of the adoption of IAS19R on the profit / (loss) for the year ended 31 December 2012 is offset by an equal and opposite amount in other comprehensive income.

(d) Impact of changes in accounting policies on the consolidated statement of cash flows

	2012			
	As previously reported £m	Effect of change in policy (IFRS 10) £m	Effect of change in policy (IAS 19) £m	Restated £m
Total cash flows from operating activities	2,294	205	—	2,499
<i>Effect of change in policy analysed as:</i>				
Profit before tax from continuing operations	246	—	150	396
Adjustment for share of loss of joint ventures and associates	277	(22)	—	255
Adjustment for fair value gains	(11,867)	(33)	—	(11,900)
Adjustment for interest expense on borrowings	653	(19)	—	634
Adjustment for net finance charge on pension schemes	82	—	(150)	(68)
Changes in working capital	5,867	279	—	6,146
Total net cash flow used in investing activities	(15)	—	—	(15)
Total net cash flows used in financing activities	(1,119)	—	—	(1,119)
Cash and cash equivalents at 31 December¹	23,248	205	—	23,453

1. Cash and cash equivalents include bank overdrafts of £566 million and cash of £917 million that has been classified as Held For Sale.

B3 – Exchange rates

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

	2013	2012
Eurozone		
Average rate (€1 equals)	£0.85	£0.81
Period end rate (€1 equals)	£0.83	£0.81
Canada		
Average rate (\$CAD1 equals)	£0.62	£0.63
Period end rate (\$CAD1 equals)	£0.57	£0.62
Poland		
Average rate (PLN1 equals)	£0.20	£0.19
Period end rate (PLN1 equals)	£0.20	£0.20
United States		
Average rate (\$US1 equals)	£0.64	£0.63
Period end rate (\$US1 equals)	£0.60	£0.62

B4 – Presentation changes**(a) Discontinued operations**

The Group's US life and annuity business and associated investment management operations (together 'US Life'), were classified as held for sale in 2012 and sold on 2 October 2013. As the Group exited from a major geographical area of operation and consistent with the presentation in the 2012 Annual Report and Accounts, the results of US Life up to the completion date of the disposal, as well as those for preceding years, have been classified as discontinued operations.

(b) Change to operating segments

Following announcements in the first quarter of 2013 relating to modifications to the Group's management structure, the Group's operating segments were changed to align them with the revised organisational reporting structure. The Group has determined its operating segments along market reporting lines, reflecting the management structure whereby a member of the Executive Management team is accountable to the group chief executive for the operating segment for which he is responsible. Further details of the reportable segments are given in note B6.

B5 – Subsidiaries

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

(a) Acquisitions

There have been no material acquisitions during the year.

(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:

	2013 £m	2012 £m
Ireland – long-term business (see (i) below)	87	—
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) below)	(178)	—
Korea (see (c) below)	(20)	—
Turkey – general insurance (see (c) below)	(9)	—
United Kingdom – RAC Limited	—	(21)
Delta Lloyd Associate	—	(129)
Poland (see (vi) below)	(4)	—
Sri Lanka	—	12
Other small operations	1	(33)
Profit/(loss) on disposal and remeasurement from continuing operations	115	(164)
Profit/(loss) on disposal and remeasurement from discontinued operations (see (vii) below)	808	(2,359)
Total profit/(loss) on disposal and remeasurement	923	(2,523)

The figures above include £(104) million (FY12: £nil) attributable to non-controlling interests, refer to section (c) below.

(i) Irish long-term business

On 17 January 2012 the Group's Irish long-term business 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 £87 million, calculated as follows:

B5 – Subsidiaries continued

	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	(6)
Net consideration	277
Currency translation reserve recycled to the income statement	93
Profit on disposal	87

(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:

	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 ¹	502
Less: transaction costs	(5)
Net consideration	497
Currency translation reserve recycled to the income statement	54
Profit on disposal	197

¹ Cash consideration of £502 million above includes a loss of £16 million related to hedging the currency exposure on expected proceeds of the sale.

B5 – Subsidiaries continued**(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:

	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.

(vi) Poland

In 2013 the Group sold 16% of the total shares in its Polish life and general insurance joint ventures BZ-WBK Aviva Towarzystwo Ubezpiecze Ogólnych SA and BZ-WBK Aviva Towarzystwo Ubezpiecze na ycie SA, to its joint partner BZ-WBK. Aviva's remaining interest in both entities is a 34% share. Due to the change in control, the Group's investments were reclassified from joint ventures to associates and the transfer of shares resulted in a £4 million loss.

B5 – Subsidiaries continued**(vii) Discontinued operations - US long term business continued**

The profit/loss on disposal and remeasurement on discontinued operations is as follows:

	2013 £m	2012 £m
Profit/(Loss) on disposal and remeasurement from discontinued operations	808	(2,359)

On 21 December 2012, the Group announced that it had agreed to sell US Life for consideration of £1.0 billion including the shareholder loan. Following classification as held for sale, US Life was remeasured to fair value less costs to sell in 2012 resulting in an impairment loss of £2,359 million recognised as a loss on remeasurement of subsidiaries.

The sale of the Aviva USA business completed on 2 October 2013 and the transaction proceeds received were based on the estimated earnings and other improvements in statutory surplus over the period from 30 June 2012 to 30 September 2013. The final purchase price is subject to customary completion adjustments. The process to agree completion adjustments is on-going and is expected to complete by mid-2014. Until the outcome of this process is known there remains uncertainty on the final determination of the completion adjustment.

The transaction resulted in a profit on disposal of £808 million in 2013, reflecting management's best estimate of the completion adjustment. The profit on disposal, calculated as follows, includes £644 million of currency translation and investment valuation reserves recycled to the income statement on completion of the sale.

	2013 £m
Assets	
Acquired value of in-force business and intangible assets	445
Investment property	6
Loans	3,615
Financial Investments	28,185
Reinsurance assets	648
Receivables and other financial assets	329
Prepayments and accrued income	340
Other assets	293
Cash and cash equivalents	2,467
Total assets	36,328
Liabilities	
Insurance liabilities	31,219
Liability for investment contracts	1,826
Provisions	172
Reinsurance deposits and collateral payable	654
Current and deferred tax liabilities	704
External borrowings	179
Intra-group liabilities	553
Other liabilities	308
Total liabilities	35,615
Net assets	713
Cash consideration received ¹	1,434
Less: Settlement of intercompany loan	(553)
Less: transaction costs	(4)
Net cash consideration	877
Currency translation and investment valuation reserves recycled to the income statement	644
Profit on disposal	808

¹ Cash consideration received of £1,434 million above includes a recognised loss of £4 million related to hedging the currency exposure on the expected proceeds of the sale. As noted above, the process to agree completion adjustments is on-going. Until the outcome of this process is known there remains uncertainty on the final determination of the consideration.

Other comprehensive income, net of tax from discontinued operations of £(319) million includes £(215) million in fair value gains on available for sale financial instruments, £(281) million in fair value gains on available for sale financial instruments transferred to the income statement on disposal, £12 million of impairment losses transferred to the income statement, £(4) million recycled out of other comprehensive income and £169 million aggregate shareholder tax effect.

B5 – 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 31 December 2013 are as follows:

	2013			2012
	Total £m	US Life £m	Other £m	Total £m
Assets				
Goodwill	4	—	183	183
Acquired value of in-force business and intangible assets	—	408	83	491
Interests in, and loans to, joint ventures and associates	29	—	126	126
Property and equipment	—	—	2	2
Investment property	—	6	12	18
Loans	—	3,397	—	3,397
Financial investments	2,675	31,212	5,203	36,415
Reinsurance assets	37	644	239	883
Deferred acquisition costs	6	1,468	70	1,538
Other assets	196	769	97	866
Cash and cash equivalents	351	544	373	917
	3,298	38,448	6,388	44,836
Additional impairment to write down the disposal group to fair value less costs to sell	(185)	(2,233)	—	(2,233)
Total assets	3,113	36,215	6,388	42,603
Liabilities				
Insurance liabilities	(238)	(31,153)	(3,294)	(34,447)
Liability for investment contracts	(2,710)	(2,197)	(1,857)	(4,054)
Unallocated divisible surplus	4	—	(55)	(55)
Provisions	(3)	(184)	(3)	(187)
Deferred tax liabilities	(1)	(672)	(8)	(680)
Current tax liabilities	—	—	—	—
External borrowings	(29)	(145)	—	(145)
Other liabilities	(46)	(1,497)	(346)	(1,843)
Total liabilities	(3,023)	(35,848)	(5,563)	(41,411)
Net assets	90	367	825	1,192

(i) Eurovita

In the first half of 2013, 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. Finoa Srl (“Finoa”), an Italian holding company in which Aviva owns a 50% share, owns a 77.55% share of Eurovita. During November 2013, the sale of Finoa’s stake in Eurovita was announced subject to regulatory approval.

Following classification as held for sale, Eurovita was re-measured at fair value based on the expected sales price less costs to sell of £39 million. As a result, a remeasurement loss of £178 million has been recognised within “Profit on the disposal and re-measurement of subsidiaries, joint ventures and associates” in the income statement. Aviva’s share of this loss is £74 million and its share of the investment is £10 million.

Eurovita’s results continue to be consolidated. On completion of the disposal the currency translation reserves relating to Eurovita, currently recognised in equity, will be recycled to the income statement.

(ii) Other businesses

Also classified as held for sale at 31 December 2013 are operations in Indonesia, South Korea, the general insurance business in Turkey, Taiwan and other small operations.

- In Indonesia management decided to restructure existing operations and establish a new joint venture. As Aviva’s holding will change from a 60% controlling interest to a 50% joint venture the investment is classified as held for sale at 31 December 2013. Net assets are £17 million at 31 December 2013. On 17 January 2014, Aviva and PT Astra International Tbk signed an agreement to form Astra Aviva Life, a 50-50 joint venture to sell and distribute life insurance products in Indonesia.
- Management determined that the value of our long-term business joint venture in South Korea, in which the group has a 47% share, will be principally recovered through sale. The sale is expected to complete in 2014 with an expected sales price of £41 million. As a result, the business has been classified as held for sale and remeasured at fair value of £19 million based on Aviva’s share of the expected sales price less costs to sell. As a result, a re-measurement loss of £20 million was recognised at 31 December 2013.
- Management has committed to sell the Turkey general insurance business with completion of the sale expected in 2014. As a result, the business was classified as held for sale as of 31 December 2013 and remeasured at fair value based on the expected sales price less costs to sell of £2 million resulting in a remeasurement loss of £9 million.
- The Group’s Taiwan joint venture, First-Aviva Life Insurance Co Ltd is classified as held for sale.

Significant restrictions

In certain jurisdictions the ability of subsidiaries to transfer funds to the Group in the form of cash dividends or to repay loans and advances is subject to local corporate or insurance laws and regulations and solvency requirements. We do not believe that these requirements constitute a material limitation on the ability of the subsidiaries to transfer funds to the Group. There are no protective rights of non-controlling interests which significantly restrict the Group’s ability to access or use the assets and settle the liabilities of the Group.

B6 – 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 consolidated income statement and 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 the first quarter of 2013 relating to modifications to its management structure, the Group's operating segments were changed to align them with the revised organisational reporting structure. These 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. As set out in note B5 (c), the operations of Eurovita have been classified as held for sale during 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 our life operations in Turkey and our Turkish general insurance business (which is held for sale as at 31 December 2013). 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 principally through intermediaries and insurance brokers.

Asia

Our activities in Asia principally comprise our long-term business operations in China, India, Singapore, Hong Kong and Vietnam as well as our life operations in Taiwan, Indonesia and South Korea which are 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 (which is held for sale at 31 December 2013) – see note B5.

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 were sold with the Group's US life operations and are classified 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 October 2013 the Group sold its US life operations (including the related internal asset management operations of Aviva Investors), which has been presented as a discontinued operation in the income statement, statement of comprehensive income and statement of cash flows.

B6 – Segmental information continued**(a) (i) Segmental income statement for the year ended 31 December 2013**

	United Kingdom & Ireland		Europe									
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	Canada £m	Asia £m	Aviva Investors ² £m	Other Group activities ³ £m	Continuing operations £m	Discontinued operations ⁴ £m	Total £m
Gross written premiums	4,971	4,664	5,634	484	3,277	2,318	678	—	9	22,035	1,589	23,624
Premiums ceded to reinsurers	(743)	(455)	(63)	(6)	(79)	(60)	(146)	—	6	(1,546)	(100)	(1,646)
Internal reinsurance revenue	—	(9)	(6)	(3)	(5)	(8)	—	—	31	—	—	—
Premiums written net of reinsurance	4,228	4,200	5,565	475	3,193	2,250	532	—	46	20,489	1,489	21,978
Net change in provision for unearned premiums	(9)	185	(25)	(2)	31	(54)	8	—	—	134	—	134
Net earned premiums	4,219	4,385	5,540	473	3,224	2,196	540	—	46	20,623	1,489	22,112
Fee and commission income	424	198	134	60	115	40	14	294	—	1,279	28	1,307
	4,643	4,583	5,674	533	3,339	2,236	554	294	46	21,902	1,517	23,419
Net investment income/(expense)	6,898	293	3,388	180	1,628	17	40	92	(27)	12,509	2,340	14,849
Inter-segment revenue	—	—	—	—	—	—	—	143	—	143	49	192
Share of profit of joint ventures and associates	88	—	8	3	6	—	15	—	—	120	—	120
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	87	—	—	(4)	13	—	19	—	—	115	808	923
Segmental income¹	11,716	4,876	9,070	712	4,986	2,253	628	529	19	34,789	4,714	39,503
Claims and benefits paid, net of recoveries from reinsurers	(8,960)	(2,818)	(4,858)	(363)	(3,222)	(1,342)	(489)	—	(41)	(22,093)	(2,037)	(24,130)
Change in insurance liabilities, net of reinsurance	4,102	119	(1,618)	(103)	(2)	(42)	92	—	(55)	2,493	(312)	2,181
Change in investment contract provisions	(4,829)	—	(1,725)	34	(386)	—	—	(144)	—	(7,050)	(31)	(7,081)
Change in unallocated divisible surplus	199	—	426	16	(363)	—	2	—	—	280	—	280
Fee and commission expense	(598)	(1,479)	(554)	(60)	(286)	(620)	(61)	(23)	(294)	(3,975)	(438)	(4,413)
Other expenses	(370)	(301)	(280)	(51)	(214)	(136)	(73)	(446)	(349)	(2,220)	(293)	(2,513)
Inter-segment expenses	(129)	(4)	—	(7)	—	(3)	—	—	—	(143)	(49)	(192)
Finance costs	(224)	(6)	(4)	—	(4)	(6)	—	(5)	(360)	(609)	(16)	(625)
Segmental expenses	(10,809)	(4,489)	(8,613)	(534)	(4,477)	(2,149)	(529)	(618)	(1,099)	(33,317)	(3,176)	(36,493)
Profit/(loss) before tax	907	387	457	178	509	104	99	(89)	(1,080)	1,472	1,538	3,010
Tax attributable to policyholders' returns	(190)	—	—	—	—	—	(1)	—	—	(191)	—	(191)
Profit/(loss) before tax attributable to shareholders' profits	717	387	457	178	509	104	98	(89)	(1,080)	1,281	1,538	2,819
Adjusted for non-operating items:												
Reclassification of corporate costs and unallocated interest	—	7	21	—	—	—	—	—	(28)	—	—	—
Investment return variances and economic assumption changes on life business	414	—	(70)	1	(267)	—	(29)	—	—	49	(452)	(403)
Short-term fluctuation in return on investments backing non-life business	—	74	15	—	12	122	—	—	113	336	—	336
Economic assumption changes on general insurance and health business	—	(28)	—	—	—	(4)	—	—	(1)	(33)	—	(33)
Impairment of goodwill, joint ventures and associates	—	—	—	—	48	—	29	—	—	77	—	77
Amortisation and impairment of intangibles	21	1	—	—	17	15	1	22	14	91	9	100
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	(87)	—	—	4	(13)	—	(19)	—	—	(115)	(808)	(923)
Integration and restructuring costs	59	24	25	1	8	9	7	41	189	363	3	366
Operating profit/(loss) before tax attributable to shareholders	1,124	465	448	184	314	246	87	(26)	(793)	2,049	290	2,339

¹ Total reported income, excluding inter-segment revenue, includes £15,862 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

² Aviva Investors operating profit includes £2 million profit relating to the Aviva Investors Pooled Pensions business.

³ Other Group activities include Group Reinsurance.

⁴ Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

B6 – Segmental information continued

(a) (ii) Segmental income statement for the year ended 31 December 2012 – (Restated)⁴

	United Kingdom & Ireland		Europe									
	Life £m	GI £m	France £m	Poland £m	Italy, Spain and Other £m	Canada £m	Asia £m	Aviva Investors ² £m	Other Group activities ³ £m	Continuing operations £m	Discontinued operations ⁵ £m	Total £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	—	—	—
Premiums written net of reinsurance	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)	61	21,135	2,241	23,376
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, joint ventures and associates	(2)	(21)	—	—	7	—	12	—	(160)	(164)	(2,359)	(2,523)
Segmental income ¹	14,600	5,226	12,850	890	6,315	2,327	933	412	(273)	43,280	3,569	46,849
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	(30)	(880)	(241)	359	(40)	(17)	—	15	(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)
Fee and commission expense	(854)	(1,544)	(604)	(60)	(362)	(611)	(86)	(24)	(312)	(4,457)	(498)	(4,955)
Other expenses	(749)	(465)	(268)	(56)	(316)	(151)	(67)	(342)	(429)	(2,843)	(1,307)	(4,150)
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)	(4,978)	(12,368)	(714)	(6,042)	(2,082)	(848)	(410)	(1,147)	(42,884)	(6,265)	(49,149)
Profit/(loss) before tax	305	248	482	176	273	245	85	2	(1,420)	396	(2,696)	(2,300)
Tax attributable to policyholders' returns	(198)	—	—	—	—	—	(23)	—	—	(221)	—	(221)
Profit/(loss) before tax attributable to shareholders' profits	107	248	482	176	273	245	62	2	(1,420)	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 life business	663	—	(28)	(13)	—	—	(2)	—	—	620	(342)	278
Short-term fluctuation in return on investments backing non-life 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, joint ventures and associates ⁶	(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, joint ventures 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	480	422	167	365	277	53	42	(671)	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 materially from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

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

3 Other Group activities include Group Reinsurance.

4 Restated for the adoption of revised IAS19 and IFRS 10. See note B2 for further details. Also restated for the revised segmentation per note B4.

5 Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

6 Other Group activities included a reversal of an impairment in respect of our investment in Delta Lloyd of £205 million.

B6 – Segmental information continued

(a) (iii) Segmental statement of financial position as at 31 December 2013

[illegible]

B6 – Segmental information continued**(a) (iv) 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	—	2,592	188,743	
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	7,057	314,467	
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	—	—	—	—	6,034	9,983	
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	16,954	303,107	
Total equity											11,360	
Total equity and liabilities											314,467	

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 result for the year ended 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 up to the date of disposal in October 2013. The Group's share of the results of its interest in Delta Lloyd are shown as an associate until 5 July 2012 and, from 6 July 2012 until disposal in January 2013, as a financial investment, and are shown only within other activities within continuing operations.

B6 – Segmental information continued**(b) (i) Segmental income statement – products and services for the year ended 31 December 2013**

	Life business £m	General insurance and health ² £m	Fund management £m	Other £m	Total £m
Gross written premiums ¹	12,674	9,361	—	—	22,035
Premiums ceded to reinsurers	(905)	(641)	—	—	(1,546)
Premiums written net of reinsurance	11,769	8,720	—	—	20,489
Net change in provision for unearned premiums	—	134	—	—	134
Net earned premiums	11,769	8,854	—	—	20,623
Fee and commission income	600	80	348	251	1,279
	12,369	8,934	348	251	21,902
Net investment income/(expense)	12,184	349	3	(27)	12,509
Inter-segment revenue	—	—	143	—	143
Share of profit of joint ventures and associates	117	3	—	—	120
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	125	(10)	—	—	115
Segmental income	24,795	9,276	494	224	34,789
Claims and benefits paid, net of recoveries from reinsurers	(16,333)	(5,760)	—	—	(22,093)
Change in insurance liabilities, net of reinsurance	2,519	(26)	—	—	2,493
Change in investment contract provisions	(7,050)	—	—	—	(7,050)
Change in unallocated divisible surplus	280	—	—	—	280
Fee and commission expense	(1,078)	(2,492)	(34)	(371)	(3,975)
Other expenses	(764)	(495)	(369)	(592)	(2,220)
Inter-segment expenses	(134)	(9)	—	—	(143)
Finance costs	(163)	(11)	(60)	(375)	(609)
Segmental expenses	(22,723)	(8,793)	(463)	(1,338)	(33,317)
Profit before tax from continuing operations	2,072	483	31	(1,114)	1,472
Tax attributable to policyholder returns	(191)	—	—	—	(191)
Profit before tax attributable to shareholders' profits	1,881	483	31	(1,114)	1,281
Adjusted for:					
Non-operating items from continuing operations	20	314	62	372	768
Operating profit/(loss) before tax attributable to shareholders' profits from continuing operations	1,901	797	93	(742)	2,049
Operating profit/(loss) before tax attributable to shareholders' profits from discontinued operations³	272	—	31	(13)	290
Operating profit/(loss) before tax attributable to shareholders' profits	2,173	797	124	(755)	2,339

¹ Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £246 million, of which £142 million relates to property and liability insurance and £104 million relates to long-term business.

² General insurance and health business segment includes gross written premiums of £1,196 million relating to health business. The remaining business relates to property and liability insurance.

³ Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

B6 – Segmental information continued**(b) (ii) Segmental income statement – products and services for the year ended 31 December 2012 – (Restated)³**

	Life 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)
Premiums written net of reinsurance	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	20,236	823	6	70	21,135
Inter-segment revenue	—	—	127	—	127
Share of (loss)/profit of joint ventures and associates	(5)	1	3	(254)	(255)
Loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	(6)	(21)	—	(137)	(164)
Segmental income	33,136	9,746	467	(76)	43,273
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)
Fee and commission expense	(1,522)	(2,523)	(32)	(380)	(4,457)
Other expenses	(1,251)	(715)	(368)	(509)	(2,843)
Inter-segment expenses	(116)	(11)	—	—	(127)
Finance costs	(198)	(28)	(56)	(371)	(653)
Segmental expenses	(32,051)	(9,110)	(456)	(1,260)	(42,877)
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' profits	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 operations⁴	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.

⁴ Discontinued operations represent the results of the US life and related internal asset management businesses (US Life) until the date of disposal (2 October 2013). For further details see note B5.

B6 – Segmental information continued**(b) (iii) Segmental statement of financial position as at 31 December 2013**

	Long-term business £m	General insurance and health £m	Fund management £m	Other £m	Total £m
Goodwill	328	1,048	27	73	1,476
Acquired value of in-force business and intangible assets	791	160	48	69	1,068
Interests in, and loans to, joint ventures and associates	1,462	5	—	—	1,467
Property and equipment	187	91	1	34	313
Investment property	8,760	140	—	551	9,451
Loans	23,523	346	—	10	23,879
Financial investments	179,653	10,717	35	2,556	192,961
Deferred acquisition costs	1,525	862	10	—	2,397
Other assets	29,673	4,815	459	7,804	42,751
Assets of operations classified as held for sale	2,949	164	—	—	3,113
Total assets	248,851	18,348	580	11,097	278,876
Gross insurance liabilities	96,153	14,402	—	—	110,555
Gross liabilities for investment contracts	116,058	—	—	—	116,058
Unallocated divisible surplus	6,713	—	—	—	6,713
Net asset value attributable to unitholders	3,643	—	—	6,719	10,362
External borrowings	2,678	—	—	5,141	7,819
Other liabilities, including inter-segment liabilities	9,323	(2,629)	346	6,289	13,329
Liabilities of operations classified as held for sale	2,881	142	—	—	3,023
Total liabilities	237,449	11,915	346	18,149	267,859
Total equity					11,017
Total equity and liabilities					278,876

(b) (iv) 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	3,549	188,743
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	9,099	314,467
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	—	—	6,034	9,983
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	17,964	303,107
Total equity					11,360
Total equity and liabilities					314,467

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 result for the year ended 31 December 2012 as a result of this restatement.

B7 – Tax

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

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

(i) The total tax charge comprises:

	2013 £m	Restated ¹ 2012 £m
Current tax		
For this year	517	531
Prior year adjustments	13	(47)
Total current tax from continuing operations	530	484
Deferred tax		
Origination and reversal of temporary differences	63	(33)
Changes in tax rates or tax laws	(13)	(12)
Write-down of deferred tax assets	14	43
Total deferred tax from continuing operations	64	(2)
Total tax charged to income statement from continuing operations	594	482
Total tax charged to income statement from discontinued operations	265	152
Total tax charged to income statement	859	634

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

(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, Irish and Singapore life insurance policyholder returns is included in the tax charge. The tax charge attributable to policyholders' returns included in the charge above is £191 million (FY12: £221 million).

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

	2013 £m	Restated ¹ 2012 £m
UK tax	76	(1)
Overseas tax	783	635
	859	634

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

(iv) Unrecognised tax losses and temporary differences of previous years were used to reduce the current tax expense and deferred tax expense by £3 million and £57 million (FY12: £7 million and £11 million), respectively.

(v) Deferred tax charged/(credited) to the income statement represents movements on the following items:

	2013 £m	Restated ¹ 2012 £m
Long-term business technical provisions and other insurance items	(24)	(1,868)
Deferred acquisition costs	(90)	254
Unrealised gains on investments	145	2,312
Pensions and other post-retirement obligations	6	12
Unused losses and tax credits	112	(30)
Subsidiaries, associates and joint ventures	(2)	—
Intangibles and additional value of in-force long-term business	(6)	(12)
Provisions and other temporary differences	(77)	(670)
Deferred tax charged/(credited) to income statement from continuing operations	64	(2)
Deferred tax charged to income statement from discontinued operations	187	143
Total deferred tax charged to income statement	251	141

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

B7 – Tax continued**(b) Tax (credited)/charged to other comprehensive income**

(i) The total tax credit comprises:

	2013 £m	Restated ¹ 2012 £m
Current tax from continuing operations		
In respect of pensions and other post-retirement obligations	(15)	(28)
In respect of foreign exchange movements	6	(17)
	(9)	(45)
Deferred tax from continuing operations		
In respect of pensions and other post-retirement obligations	(110)	(160)
In respect of fair value gains on owner-occupied properties	—	(1)
In respect of unrealised gains on investments	8	9
	(102)	(152)
Tax credited to other comprehensive income arising from continuing operations	(111)	(197)
Tax (credited)/charged to other comprehensive income arising from discontinued operations	(169)	107
Total tax credited to other comprehensive income	(280)	(90)

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

(ii) The tax charge attributable to policyholders' returns included above is £nil (FY12: £nil).

(c) Tax credited to equity

Tax credited directly to equity in the year amounted to £52 million (FY12: £18 million). This comprises £22 million in respect of coupon payments on the direct capital instruments and fixed rate tier 1 notes and £30 million in respect of the currency translation reserve recycled to the income statement on the sale of Aviva USA Corporation.

(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:

	Shareholder £m	Policyholder £m	2013 Total £m	Shareholder £m	Policyholder £m	Restated ¹ 2012 Total £m
Total profit/(loss) before tax	2,819	191	3,010	(2,521)	221	(2,300)
Tax calculated at standard UK corporation tax rate of 23.25% (2012: 24.5%)	656	44	714	(618)	54	(564)
Reconciling items						
Different basis of tax – policyholders	—	147	147	—	170	170
Adjustment to tax charge in respect of prior years	(18)	—	(18)	(20)	—	(20)
Non-assessable income and items not taxed at the full statutory rate	(54)	—	(54)	(86)	—	(86)
Non-taxable (profit)/loss on sale of subsidiaries and associates	(154)	—	(154)	872	—	872
Disallowable expenses	98	—	98	418	—	418
Different local basis of tax on overseas profits	184	—	184	(142)	(3)	(145)
Change in future local statutory tax rates	(9)	—	(9)	(13)	—	(13)
Movement in deferred tax not recognised	(21)	—	(21)	(69)	—	(69)
Tax effect of (profit)/loss from associates and joint ventures	(10)	—	(10)	75	—	75
Other	(4)	—	(4)	(4)	—	(4)
Total tax charged to income statement	668	191	859	413	221	634

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

The tax charge attributable to policyholders' returns is removed from the Group's total profit/(loss) before tax in arriving at the Group's profit/(loss) 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 profit attributable to policyholders is an amount equal and opposite to the tax charge attributable to policyholders included in the total tax charge. The difference between the policyholder tax charge and the impact of this item in the tax reconciliation can be explained as follows:

	2013 £m	2012 £m
Tax attributable to policyholder returns	191	221
UK corporation tax at a rate of 23.25% (2012: 24.5%) in respect of the policyholder tax deduction	(44)	(54)
Different local basis of tax of overseas profits	—	3
Different basis of tax – policyholders per tax reconciliation	147	170

The UK corporation tax rate reduced to 23% from 1 April 2013. Legislation was 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 20% rate has been used in the calculation of the UK's deferred tax assets and liabilities as at 31 December 2013.

B8 – Earnings per share

This note shows how we calculate earnings per share, based both on the present shares in issue (the basic earnings per share) and the potential future shares in issue, including conversion of share options granted to employees (the diluted earnings per share). We have also shown the same calculations based on our operating profit as we believe this gives a better indication of operating performance.

(a) Basic earnings per share

(i) The profit/(loss) attributable to ordinary shareholders is:

	2013			Restated ¹ 2012		
	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	2,049	(768)	1,281	2,038	(1,970)	68
Share of Delta Lloyd's tax expense as an associate	—	—	—	(28)	135	107
Profit/(loss) before tax	2,049	(768)	1,281	2,010	(1,835)	175
Tax attributable to shareholders' profit/(loss)	(534)	131	(403)	(499)	238	(261)
Profit/(loss) for the year	1,515	(637)	878	1,511	(1,597)	(86)
Amount attributable to non-controlling interests	(174)	31	(143)	(184)	16	(168)
Cumulative preference dividends for the year	(17)	—	(17)	(17)	—	(17)
Coupon payments in respect of direct capital instruments (DCI) and fixed rate tier 1 notes (net of tax)	(70)	—	(70)	(55)	—	(55)
Profit/(loss) attributable to ordinary shareholders from continuing operations	1,254	(606)	648	1,255	(1,581)	(326)
Profit/(loss) attributable to ordinary shareholders from discontinued operations	207	1,066	1,273	161	(3,009)	(2,848)
Profit/(loss) attributable to ordinary shareholders	1,461	460	1,921	1,416	(4,590)	(3,174)

¹ Restated for the adoption of revised IAS19. See note B2 for further details.

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

	2013			Restated ² 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
Continuing operations						
Operating profit attributable to ordinary shareholders	2,049	1,254	42.6	2,038	1,255	43.1
Non-operating items:						
Investment return variances and economic assumption changes on life business	(49)	(142)	(4.8)	(620)	(499)	(17.1)
Short-term fluctuation in return on investments backing non life business	(336)	(254)	(8.6)	7	9	0.3
Economic assumption changes on general insurance and health business	33	27	0.9	(21)	(16)	(0.6)
Impairment of goodwill, associates and joint ventures	(77)	(77)	(2.6)	(60)	(60)	(2.1)
Amortisation and impairment of intangibles	(91)	(65)	(2.2)	(128)	(84)	(2.9)
Profit/(loss) on disposal and remeasurement of subsidiaries, joint ventures and associates	115	220	7.4	(164)	(164)	(5.6)
Integration and restructuring costs and exceptional items	(363)	(315)	(10.7)	(461)	(379)	(13.0)
Share of Delta Lloyd's non-operating items (before tax) as an associate	—	—	—	(523)	(388)	(13.3)
Share of Delta Lloyd's tax expense, as an associate	—	—	—	107	—	—
Profit/(loss) attributable to ordinary shareholders from continuing operations	1,281	648	22.0	175	(326)	(11.2)
Profit/(loss) attributable to ordinary shareholders from discontinued operations	1,538	1,273	43.3	(2,696)	(2,848)	(97.9)
Profit/(loss) attributable to ordinary shareholders	2,819	1,921	65.3	(2,521)	(3,174)	(109.1)

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

² Restated for the adoption of revised IAS19. See note B2 for further details.

(iii) The calculation of basic earnings per share uses a weighted average of 2,940 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 31 December 2013 was 2,947 million (*FY12: 2,946 million*) and 2,938 million (*FY12: 2,936 million*) excluding shares owned by the employee share trusts.

B8 – Earnings per share continued**(b) Diluted earnings per share**

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

	2013			Restated ² 2012		
	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	648	2,940	22.0	(326)	2,910	(11.2)
Dilutive effect of share awards and options	—	39	(0.2)	—	44	—
Diluted earnings/(loss) per share from continuing operations¹	648	2,979	21.8	(326)	2,954	(11.2)
Profit/(loss) attributable to ordinary shareholders	1,273	2,940	43.3	(2,848)	2,910	(97.9)
Dilutive effect of share awards and options	—	39	(0.6)	—	44	—
Diluted earnings/(loss) per share from discontinued operations¹	1,273	2,979	42.7	(2,848)	2,954	(97.9)
Diluted earnings/(loss) per share	1,921	2,979	64.5	(3,174)	2,954	(109.1)

¹ Losses have an anti-dilutive effect. Therefore the basic and diluted earnings for 2012 have remained the same.² Restated for the adoption of revised IAS19. See note B2 for further details.

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

	2013			Restated ¹ 2012		
	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	1,254	2,940	42.6	1,255	2,910	43.1
Dilutive effect of share awards and options	—	39	(0.5)	—	44	(0.6)
Diluted operating profit per share from continuing operations	1,254	2,979	42.1	1,255	2,954	42.5
Operating profit attributable to ordinary shareholders	207	2,940	7.0	161	2,910	5.5
Dilutive effect of share awards and options	—	39	(0.1)	—	44	(0.1)
Diluted operating profit per share from discontinued operations	207	2,979	6.9	161	2,954	5.4
Diluted operating profit per share	1,461	2,979	49.0	1,416	2,954	47.9

¹ Restated for the adoption of revised IAS19. See note B2 for further details.**B9 – Dividends and appropriations**

This note analyses the total dividends and other appropriations we paid during the year. The table below does not include the final dividend proposed after the year end because it is not accrued in these financial statements.

	2013 £m	2012 £m
Ordinary dividends declared and charged to equity in the year		
Final 2012 – 9.00 pence per share, paid on 17 May 2013	264	—
Final 2011 – 16.00 pence per share, paid on 17 May 2012	—	465
Interim 2013 – 5.6 pence, paid on 15 November 2013	165	—
Interim 2012 – 10.00 pence per share, paid on 16 November 2012	—	292
	429	757
Preference dividends declared and charged to equity in the year	17	17
Coupon payments on direct capital instruments and fixed rate tier 1 notes	92	73
	538	847

Subsequent to 31 December 2013, the directors proposed a final dividend for 2013 of 9.4 pence per ordinary share (FY12: 9.0 pence), amounting to £277 million (FY12: £264 million) in total. Subject to approval by shareholders at the AGM, the dividend will be paid on 16 May 2014 and will be accounted for as an appropriation of retained earnings in the year ending 31 December 2014.

Interest payments on the direct capital instruments issued in November 2004 and the fixed rate tier 1 notes issued in May 2012 are treated as an appropriation of retained profits and, accordingly, are accounted for when paid. Tax relief is obtained at a rate of 23.25% (FY12: 24.5%).

B10 – Insurance liabilities

This note analyses the Group insurance contract liabilities by type of product and describes how the Group calculates these liabilities and the assumptions the Group used.

(a) Carrying amount**(i) Insurance liabilities (gross of reinsurance) at 31 December comprise:**

	2013			2012		
	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	45,098	—	45,098	49,473	—	49,473
Unit-linked non-participating	8,714	—	8,714	9,936	—	9,936
Other non-participating	41,160	—	41,160	71,781	—	71,781
	94,972	—	94,972	131,190	—	131,190
Outstanding claims provisions	1,287	7,730	9,017	1,342	7,711	9,053
Provision for claims incurred but not reported	—	2,568	2,568	—	2,843	2,843
	1,287	10,298	11,585	1,342	10,554	11,896
Provision for unearned premiums	—	4,226	4,226	—	4,441	4,441
Provision arising from liability adequacy tests	—	10	10	—	11	11
Other technical provisions	—	—	—	—	—	—
Total	96,259	14,534	110,793	132,532	15,006	147,538
Less: Amounts classified as held for sale	(106)	(132)	(238)	(34,446)	(1)	(34,447)
	96,153	14,402	110,555	98,086	15,005	113,091

(ii) Change in insurance liabilities recognised as an expense

The purpose of the following table is to reconcile the change in insurance liabilities, net of reinsurance, shown on the income statement, to the change in insurance liabilities recognised as an expense in the relevant movement tables in this note. To do this we need to separate out the change in provision for outstanding claims on long-term business (which is not included in a separate movement table), and the unwind of discounting on GI reserves (which is included within finance costs within the income statement). For general insurance and health business, the change in the provision for unearned premiums is not included in the reconciliation below, as within the income statement, this is included within earned premiums.

Insurance liabilities at 31 December comprise:

2013	Continuing Operations			Discontinued Operations			Total		
	Gross £m	Reinsurance £m	Net £m	Gross £m	Reinsurance £m	Net £m	Gross £m	Reinsurance £m	Net £m
Long-term business									
Change in long-term business provisions	(2,423)	(164)	(2,587)	331	(19)	312	(2,092)	(183)	(2,275)
Change in provision for outstanding claims	75	(7)	68	(11)	11	—	64	4	68
	(2,348)	(171)	(2,519)	320	(8)	312	(2,028)	(179)	(2,207)
General insurance and health									
Change in insurance liabilities	(33)	64	31	—	—	—	(33)	64	31
Less: Unwind of discount on GI reserves and other	(15)	10	(5)	—	—	—	(15)	10	(5)
	(48)	74	26	—	—	—	(48)	74	26
Total change in insurance liabilities	(2,396)	(97)	(2,493)	320	(8)	312	(2,076)	(105)	(2,181)

2012	Continuing Operations			Discontinued Operations			Total		
	Gross £m	Reinsurance £m	Net £m	Gross £m	Reinsurance £m	Net £m	Gross £m	Reinsurance £m	Net £m
Long term business									
Change in long term business provisions	531	(252)	279	1,691	(125)	1,566	2,222	(377)	1,845
Change in provision for outstanding claims	52	28	80	7	(7)	—	59	21	80
	583	(224)	359	1,698	(132)	1,566	2,281	(356)	1,925
General insurance and health									
Change in insurance liabilities	140	(46)	94	—	—	—	140	(46)	94
Less: Unwind of discount on GI reserves and other	(35)	12	(23)	—	—	—	(35)	12	(23)
	105	(34)	71	—	—	—	105	(34)	71
Total change in insurance liabilities	688	(258)	430	1,698	(132)	1,566	2,386	(390)	1,996

B10 – Insurance liabilities

(b) Long-term business liabilities

(i) Business description

The Group underwrites long-term business in a number of countries as follows:

- In the UK mainly in:
 - New With-Profits sub-fund (NWPSF) of Aviva Life & Pensions UK (UKLAP), where the with-profit policyholders are entitled to at least 90% of the distributed profits, the shareholders receiving the balance. Any surplus or deficit emerging in NWPSF that is not distributed as bonus will be transferred from this sub-fund to the Reattributed Inherited Estate External Support Account (RIEESA) (see below).
 - Old With-Profits sub-fund (OWPSF), With-Profits sub-fund (WPSF) and Provident Mutual sub-fund (PMSF) of UKLAP, where the with-profit policyholders are entitled to at least 90% of the distributed profits, the shareholders receiving the balance.
 - ‘Non-profit’ funds of Aviva Annuity UK and UKLAP, where shareholders are entitled to 100% of the distributed profits. Shareholder profits on unitised with-profit business written by WPSF and on stakeholder unitised with-profit business are derived from management fees and policy charges, and emerge in the non-profit funds.
 - The RIEESA of UKLAP, which is a non-profit fund where shareholders are entitled to 100% of the distributed profits, but these cannot be distributed until the ‘lock-in’ criteria set by the Reattribution Scheme have been met. RIEESA will be used to write non-profit business and also to provide capital support to NWPSF.
- In France, where the majority of policyholders’ benefits are determined by investment performance, subject to certain guarantees, and shareholders’ profits are derived largely from management fees. In addition, a substantial number of policies participate in investment returns, with the balance being attributable to shareholders.
- In other operations in Europe and Asia, a range of long-term insurance and savings products are written.

(i) Group practice

The long-term business provision is calculated separately for each of the Group’s life operations. The provisions for overseas subsidiaries have generally been included on the basis of local regulatory requirements, modified where necessary to reflect the requirements of the Companies Act 2006.

Material judgment is required in calculating the provisions and is exercised particularly through the choice of assumptions where discretion is permitted. In turn, the assumptions used depend on the circumstances prevailing in each of the life operations. Provisions are most sensitive to assumptions regarding discount rates and mortality/morbidity rates. Where discount rate assumptions are based on current market yields on fixed interest securities, allowance is made for default risk implicit in the yields on the underlying assets.

Bonuses paid during the year are reflected in claims paid, whereas those allocated as part of the bonus declaration are included in the movements in the long-term business provision.

For UK with-profit life funds falling within the scope of the PRA realistic capital regime, and hence FRS 27, an amount may be recognised for the present value of future profits (PVFP) on non-participating business written in a with-profit fund where the determination of the realistic value of liabilities in that with-profit fund takes account, directly or indirectly, of this value. For our UK with-profit funds, no adjustment for this value is made to the participating insurance and investment contract liabilities or the unallocated divisible surplus.

(iii) Methodology and assumptions

There are two main methods of actuarial valuation of liabilities arising under long-term insurance contracts – the net premium method and the gross premium method – both of which involve the discounting of projected premiums and claims.

Under the net premium method, the premium taken into account in calculating the provision is determined actuarially, based on the valuation assumptions regarding discount rates, mortality and disability. The difference between this premium and the actual premium payable provides a margin for expenses. This method does not allow for voluntary early termination of the contract by the policyholder, and so no assumption is required for persistency.

The gross premium method uses the amount of contractual premiums payable and includes explicit assumptions for interest and discount rates, mortality and morbidity, persistency and future expenses. These assumptions can vary by contract type and reflect current and expected future experience.

(a) UK

With-profit business

The valuation of with-profit business uses the methodology developed for the Realistic Balance Sheet, adjusted to remove the shareholders’ share of future bonuses. The key elements of the Realistic Balance Sheet methodology are the with-profit benefit reserve (WPBR) and the present value of the expected cost of any payments in excess of the WPBR (referred to as the cost of future policy-related liabilities). The realistic liability for any contract is equal to the sum of the WPBR and the cost of future policy-related liabilities. The WPBR for an individual contract is generally calculated on a retrospective basis, and represents the accumulation of the premiums paid on the contract, allowing for investment return, taxation, expenses and any other charges levied on the contract.

For a small proportion of business, a prospective valuation approach is used, including allowance for anticipated future regular and final bonuses.

The items included in the cost of future policy-related liabilities include:

- Maturity Guarantees;
- Guarantees on surrender, including no-MVR Guarantees and Guarantees linked to inflation
- Guaranteed Annuity Options;
- GMP underpin on Section 32 transfers; and
- Expected payments under Mortgage Endowment Promise.

B10 – Insurance liabilities continued

The cost of future policy-related liabilities is determined using a market-consistent approach and, in the main, this is based on a stochastic model calibrated to market conditions at the end of the reporting period. Non-market-related assumptions (for example, persistency, mortality and expenses) are based on experience, adjusted to take into account future trends.

The principal assumptions underlying the cost of future policy-related liabilities are as follows:

Future investment return

A 'risk-free' rate equal to the spot yield on UK swaps is used for the valuation of With-Profits business. The rates vary according to the outstanding term of the policy, with a typical rate as at 31 December 2013 of 3.11% (FY12: 1.92 %) for a policy with ten years outstanding.

Volatility of investment return

Volatility assumptions are set with reference to implied volatility data on traded market instruments, where available, or on a best estimate basis where not.

Volatility	2013	2012
Equity returns	22.2%	26.3%
Property returns	15.0%	15.0%
Fixed interest yields	16.3%	17.1%

The equity volatility used depends on term, money-ness and region. The figure shown is for a sample UK equity, at the money, with a ten-year term. Fixed interest yield volatility is also dependent on term and money-ness. The figure shown is for a ten-year swap option with ten-year term, currently at the money.

Future regular bonuses

Annual bonus assumptions for 2014 have been set consistently with the year-end 2013 declaration. Future annual bonus rates reflect the principles and practices of each fund. In particular, the level is set with regard to the projected margin for final bonus and the change from one year to the next is limited to a level consistent with past practice.

Mortality

Mortality assumptions for with-profit business are set with regard to recent Company experience and general industry trends. The mortality tables used in the valuation are summarised below:

Mortality table used	2013	2012
Assurances, pure endowments and deferred annuities before vesting	Nil or Axx00 adjusted	Nil or Axx00 adjusted
Pensions business after vesting and pensions annuities in payment	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement

Allowance for future mortality improvement is in line with the rates shown for non-profit business below.

Non-profit business

The valuation of non-profit business is based on regulatory requirements, adjusted to remove certain regulatory reserves and margins in assumptions, notably for annuity business. Conventional non-profit contracts, including those written in the with-profit funds, are valued using gross premium methods which discount projected future cash flows. The cash flows are calculated using the amount of contractual premiums payable, together with explicit assumptions for investment returns, inflation, discount rates, mortality, morbidity, persistency and future expenses. These assumptions vary by contract type and reflect current and expected future experience.

For unit-linked and some unitised with-profit business, the provisions are valued by adding a prospective non-unit reserve to the bid value of units. The prospective non-unit reserve is calculated by projecting the future non-unit cash flows on the assumption that future premiums cease, unless it is more onerous to assume that they continue. Where appropriate, allowance for persistency is based on actual experience.

Valuation discount rate assumptions are set with regard to yields on the supporting assets and the general level of long-term interest rates as measured by gilt yields. An explicit allowance for risk is included by restricting the yields for equities and properties with reference to a margin over long-term interest rates or by making an explicit deduction from the yields on corporate bonds, mortgages and deposits, based on historical default experience of each asset class. A further margin for risk is then deducted for all asset classes.

The provisions held in respect of guaranteed annuity options are a prudent assessment of the additional liability incurred under the option on a basis and method consistent with that used to value basic policy liabilities, and includes a prudent assessment of the proportion of policyholders who will choose to exercise the option.

B10 – Insurance liabilities continued

Valuation discount rates for business in the non-profit funds are as follows:

Valuation discount rates	2013	2012
Assurances		
Life conventional non-profit	2.5%	1.8%
Pensions conventional non-profit	3.2%	2.2%
Annuities		
Conventional immediate and deferred annuities	3.2% to 4.7%	2.6% to 4.1%
Non-unit reserves on Unit Linked business		
Life	2.8%	2.1%
Pensions	3.5%	2.5%
Income Protection		
Active lives	2.9%	2.2%
Claims in payment – level	3.1%	3.1%
Claims in payment – index linked	(0.6)%	(0.7)%

The above valuation discount rates are after reduction for investment expenses and credit risk. For conventional immediate annuity business the allowance for credit risk comprises long-term assumptions for defaults and downgrades, which vary by asset category and rating. The credit risk allowance made for corporate bonds and mortgages, including healthcare mortgages, held by Aviva Annuity UK Limited equated to 48bps and 124bps respectively at 31 December 2013 (FY12: 56 bps and 89 bps respectively). For corporate bonds, the allowance represented 44% of the average credit spread for the portfolio (2012: 30%). The total valuation allowance held by Aviva Annuity UK Limited in respect of corporate bonds and mortgages, including healthcare mortgages, was £2.0 billion (FY12: £2.0 billion including an implicit reinvestment margin of £0.2 billion) over the remaining term of the UK Life corporate bond and mortgage portfolio. Total liabilities for the annuity business were £30 billion at 31 December 2013 (FY12: £30 billion). Whilst the total valuation allowance held by Aviva Annuity UK Limited remained unchanged, the allowance for defaults for commercial mortgages was increased by £0.3 billion at half year (whilst the implicit reinvestment margin was reduced by £0.2 billion to reflect management actions to better duration match), during the second half of 2013 this has reduced slightly in line with interest rate increases and default experience, the allowance for corporate bonds remains largely unchanged.

Mortality assumptions for non-profit business are set with regard to recent Company experience and general industry trends. The mortality tables used in the valuation are summarised below:

Mortality tables used	2013	2012
Assurances		
Non-profit	AM00/AF00 or TM00/TF00 adjusted for smoker status and age/sex specific factors	AM00/AF00 or TM00/TF00 adjusted for smoker status and age/sex specific factors
Pure endowments and deferred annuities before vesting	AM00/AF00 adjusted	AM00/AF00 adjusted
Annuities in payment		
Pensions business and general annuity business	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement

For the main pensions annuity business in Aviva Annuity UK Limited, the underlying mortality assumptions for Males are 103.0% of PCMA00 with base year 2000; for Females the underlying mortality assumptions are 98.5% of PCFA00 with base year 2000. Improvements have been strengthened and are based on data used in CMI_2013 with a long-term improvement rate of 1.75% for males and 1.5% for females both with an addition of 0.5% to all future annual improvement (FY12: CMI_2011 with long-term improvement rate of 1.5% for males and 1.0% for females both with an addition of 0.5% to all future annual improvement). Year-specific adjustments are made to allow for selection effects due to the development of the Enhanced Annuity market.

(b) France

The majority of reserves arise from single premium savings products and are based on the accumulated fund values, adjusted to maintain consistency with the value of the assets backing the policyholder liabilities. For traditional business, the net premium method is used for prospective valuations, in accordance with local regulation, where the valuation assumptions depend on the date of issue of the contract. The valuation discount rate also depends on the original duration of the contract and mortality rates are based on industry tables.

	Valuation discount rates	Mortality tables used
	2013 and 2012	2013 and 2012
Life assurances	0% to 4.5%	TD73-77, TD88-90, TH00-02 TF00-02, H_AVDBS, F_AVDBS
Annuities	0% to 4.5%	H_SSDBS, F_SSDBS TGF05/TGH05

B10 – Insurance liabilities continued**(c) Other countries**

In all other countries, local generally accepted interest rates and published standard mortality tables are used for different categories of business as appropriate. The tables are based on relevant experience and show mortality rates, by age, for specific groupings of people.

(iv) Movements

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

	2013 £m	Restated ¹ 2012 £m
Carrying amount at 1 January	131,190	131,171
Provisions in respect of new business	5,671	8,631
Expected change in existing business provisions	(8,015)	(8,362)
Variance between actual and expected experience	2,871	943
Impact of operating assumption changes	428	(718)
Impact of economic assumption changes	(2,812)	1,726
Other movements ¹	(235)	2
Change in liability recognised as an expense	(2,092)	2,222
Effect of portfolio transfers, acquisitions and disposals ²	(34,441)	(214)
Foreign exchange rate movements	509	(1,878)
Other movements ^{1,3}	(194)	(111)
Carrying amount at 31 December	94,972	131,190

¹ Other movements (outside change in liability recognised as an expense) of £(111) million in FY12 represents the reclassification of liabilities from insurance to non-participating investment in Eurovita. In FY12 these were included within "Other movements" within change in liability recognised as an expense.

² Disposals in 2013 include £31,167 million related to the disposal of the US business, £1,900 million related to the disposal of Aseval, and £1,233 million related to the disposal of Ark Life.

³ Other movements (outside change in liability recognised as an expense) in 2013 of £(194) million represents the reclassification of liabilities from insurance to participating investment in Eurovita.

The variance between actual and expected experience of £2.9 billion in 2013 was primarily due to the impact of favourable equity and property returns on liabilities for unit-linked and with profit contracts in the UK and Ireland, and unit-linked contracts in France and Italy. For many types of long-term business, including unit-linked and participating funds, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. Minor variances arise from differences between actual and expected experience for persistency, mortality and other demographic factors.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of insurance liabilities. The £0.4 billion impact of operating assumption changes relates to a strengthening of mortality and lapse assumptions on protection business in the UK (with the impact on profit mainly offset by a corresponding increase in reinsurance assets), and the impact on with profit liabilities in the With profits sub-fund (WPSF), of a decision to discontinue the charge on assets shares for guarantee costs, and to refund previously deducted charges to asset shares. The £2.8 billion impact of economic assumption changes reflects increases in valuation interest rates, primarily in respect of immediate annuity and participating insurance contracts in the UK.

The £0.2 billion release of reserves due to "other movements" (included within change in liability recognised as an expense) largely relates to UK with profit liabilities, the most significant individual item being the impact on asset shares of moving to a fair-value asset valuation, for loans previously valued at amortised cost.

For participating business, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact on profit. Where assumption changes do impact on profit, these are included in the effect of changes in assumptions and estimates during the year shown in note B13, together with the impact of movements in related non-financial assets.

In 2013 we found evidence of improper allocation of trades in fixed income securities in Aviva Investors. This occurred between 2006 - 2012. These breaches of our dealing policy involved late allocation of trades which favoured external hedge funds to the detriment of certain Aviva UK Life funds. The relevant regulatory authorities were notified at an early stage and have been kept fully apprised of the issue.

A thorough review of internal control processes relating to the dealing policy has been carried out by management and reviewed by PwC. Measures to improve controls have been implemented.

Of the total expected cost of £132 million, an amount of £126 million in relation to this matter has been recognised within insurance liabilities (this reflects the compensation expected to be claimed in respect of these breaches), with the balance relating to other associated costs.

B10 – Insurance liabilities continued**(c) General insurance and health liabilities****(i) Provisions for outstanding claims**

Delays occur in the notification and settlement of claims and a substantial measure of experience and judgement is involved in assessing outstanding liabilities, the ultimate cost of which cannot be known with certainty at the statement of financial position date. The reserves for general insurance and health business are based on information currently available. However, it is inherent in the nature of the business written that the ultimate liabilities may vary as a result of subsequent developments.

Provisions for outstanding claims are established to cover the outstanding expected ultimate liability for losses and loss adjustment expenses (LAE) in respect of all claims that have already occurred. The provisions established cover reported claims and associated LAE, as well as claims incurred but not yet reported and associated LAE.

The Group only establishes loss reserves for losses that have already occurred. The Group therefore does not establish catastrophe equalisation reserves that defer a share of income in respect of certain lines of business from years in which a catastrophe does not occur to future periods in which catastrophes may occur. When calculating reserves, the Group takes into account estimated future recoveries from salvage and subrogation, and a separate asset is recorded for expected future recoveries from reinsurers after considering their collectability.

The table below shows the split of total general insurance and health outstanding claim provisions and IBNR provisions, gross of reinsurance, by major line of business.

	As at 31 December 2013			As at 31 December 2012		
	Outstanding claim provisions £m	IBNR provisions £m	Total claim provisions £m	Outstanding claim provisions £m	IBNR provisions £m	Total claim provisions £m
Motor	3,724	1,001	4,725	3,737	1,051	4,788
Property	1,493	180	1,673	1,408	212	1,620
Liability	2,035	1,208	3,243	2,003	1,394	3,397
Creditor	26	18	44	54	13	67
Other	452	161	613	509	173	682
	7,730	2,568	10,298	7,711	2,843	10,554

(ii) Discounting

Outstanding claims provisions are based on undiscounted estimates of future claim payments, except for the following classes of business for which discounted provisions are held:

Class	Rate		Mean term of liabilities	
	2013	2012	2013	2012
Reinsured London Market business	2.5%	2.0%	12 years	11 years
Latent claims	0.36% to 3.76%	0.33% to 3.35%	6 to 15 years	6 to 15 years
Structured settlements	2.8%	2.6%	35 years	33 years

The gross outstanding claims provision before discounting was £10,914 million (FY12: £11,004 million). The period of time which will elapse before the liabilities are settled has been estimated by modelling the settlement patterns of the underlying claims.

The discount rate that has been applied to latent claims reserves is based on the relevant swap curve in the relevant currency having regard to the expected settlement dates of the claims. The range of discount rates used depends on the duration of the claims and is given in the table above. The duration of the claims span over 35 years, with the average duration being between 6 and 15 years depending on the geographical region. Any change in discount rates between the start and the end of the accounting period is reflected outside operating profit as an economic assumption change.

During 2013, the Group has seen a levelling off in the number of new bodily injury claims settled by periodic payment orders (PPOs) or structured settlements, which are reserved for on a discounted basis.

(iii) Assumptions

Outstanding claims provisions are estimated based on known facts at the date of estimation. Case estimates are set by skilled claims technicians and established case setting procedures. Claims technicians apply their experience and knowledge to the circumstances of individual claims. They take into account all available information and correspondence regarding the circumstances of the claim, such as medical reports, investigations and inspections. Claims technicians set case estimates according to documented claims department policies and specialise in setting estimates for certain lines of business or types of claim. Claims above certain limits are referred to senior claims handlers for estimate authorisation.

No adjustments are made to the claims technicians' case estimates included in booked claim provisions, except for rare occasions when the estimated ultimate cost of individual large or unusual claims may be adjusted, subject to internal reserve committee approval, to allow for uncertainty regarding, for example, the outcome of a court case. The ultimate cost of outstanding claims is then estimated by using a range of standard actuarial claims projection techniques, such as the Chain Ladder and Bornhuetter-Ferguson methods. The main assumption underlying these techniques is that a company's past claims development experience can be used to project future claims development and hence ultimate claims costs. As such, these methods extrapolate the development of paid and incurred losses, average costs per claim and claim numbers based on the observed development of earlier years and expected loss ratios. Historical claims development is mainly analysed by accident period, although underwriting or notification period is also used where this is considered appropriate.

Claim development is separately analysed for each geographic area, as well as by each line of business. Certain lines of business are also further analysed by claim type or type of coverage. In addition, large claims are usually separately addressed, either by being reserved at the face value of loss adjuster estimates or separately projected in order to reflect their future development.

B10 – Insurance liabilities continued

The assumptions used in most non-life actuarial projection techniques, including future rates of claims inflation or loss ratio assumptions, are implicit in the historical claims development data on which the projections are based. Additional qualitative judgement is used to assess the extent to which past trends may not apply in the future, for example, to reflect one-off occurrences, changes in external or market factors such as public attitudes to claiming, economic conditions, levels of claims inflation, judicial decisions and legislation, as well as internal factors such as portfolio mix, policy conditions and claims handling procedures in order to arrive at a point estimate for the ultimate cost of claims that represents the likely outcome, from a range of possible outcomes, taking account of all the uncertainties involved. The range of possible outcomes does not, however, result in the quantification of a reserve range.

The following explicit assumptions are made which could materially impact the level of booked net reserves:

UK mesothelioma claims

The level of uncertainty associated with latent claims is considerable due to the relatively small number of claims and the long-tail nature of the liabilities. UK mesothelioma claims account for a large proportion of the Group's latent claims. The key assumptions underlying the estimation of these claims include claim numbers, the base average cost per claim, future inflation in the average cost of claims and legal fees.

The best estimate of the liabilities reflects the latest available market information and studies. Many different scenarios can be derived by flexing these key assumptions and applying different combinations of the different assumptions. An upper and lower scenario can be derived by making reasonably likely changes to these assumptions, resulting in an estimate £235 million greater than the best estimate, or £70 million lower than the best estimate. These scenarios do not, however, constitute an upper or lower bound on these liabilities.

Interest rates used to discount latent claim liabilities

The discount rates used in determining our latent claim liabilities are based on the relevant swap curve in the relevant currency at the reporting date, having regard to the duration of the expected settlement of latent claims. The range of discount rates used is shown in section (ii) above and depends on the duration of the claim and the reporting date. At 31 December 2013, it is estimated that a 1% fall in the discount rates used would increase net claim reserves by approximately £90 million, excluding the offsetting effect on asset values as assets are not hypothecated across classes of business. The impact of a 1% fall in interest rates across all assets and liabilities of our general insurance and health businesses is shown in note B19.

Allowance for risk and uncertainty

The uncertainties involved in estimating loss reserves are allowed for in the reserving process and by the estimation of explicit reserve uncertainty distributions. The reserve estimation basis for non-life claims requires all non-life businesses to calculate booked claim provisions as the best estimate of the cost of future claim payments, plus an explicit allowance for risk and uncertainty. The allowance for risk and uncertainty is calculated by each business unit in accordance with the requirements of the Group non-life reserving policy, taking into account the risks and uncertainties specific to each line of business and type of claim in that territory. The requirements of the Group non-life reserving policy also seek to ensure that the allowance for risk and uncertainty is set consistently across both business units and reporting periods.

Changes to claims development patterns can materially impact the results of actuarial projection techniques. However, allowance for the inherent uncertainty in the assumptions underlying reserving projections is automatically allowed for in the explicit allowance for risk and uncertainty included when setting booked reserves.

Lump sum payments in settlement of bodily injury claims decided by the UK courts are calculated in accordance with the Ogden Tables. The Ogden Tables contain a discount rate that is set by the Lord Chancellor and that is applied when calculating the present value of loss of earnings for claims settlement purposes. The process for setting this discount rate is under review.

The timing of the conclusion of this review is unclear and it is still uncertain whether or by how much the rate will change. However an allowance has been included in provisions for a reduction in the Ogden discount rates. A reduction in the Ogden discount rates will increase lump sum payments to UK bodily injury claimants.

(iv) Movements

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

	2013 £m	2012 £m
Carrying amount at 1 January	10,554	10,745
Impact of changes in assumptions	(80)	61
Claim losses and expenses incurred in the current year	6,337	6,291
Decrease in estimated claim losses and expenses incurred in prior years	(237)	(199)
Exceptional strengthening of general insurance latent claims provisions	—	—
Included claims losses and expenses	6,020	6,153
Less:		
Payments made on claims incurred in the current year	(3,352)	(3,243)
Payments made on claims incurred in prior years	(3,001)	(3,104)
Recoveries on claim payments	285	297
Claims payments made in the year, net of recoveries	(6,068)	(6,050)
Unwind of discounting	15	35
Other movements in the claims provisions	—	2
Changes in claims reserve recognised as an expense	(33)	140
Effect of portfolio transfers, acquisitions and disposals	(44)	(171)
Foreign exchange rate movements	(178)	(158)
Other movements	(1)	(2)
Carrying amount at 31 December	10,298	10,554

The effect of changes in the main assumptions is given in note B13.

(i) Description of tables

The tables that follow present the development of claim payments and the estimated ultimate cost of claims for the accident years 2004 to 2013. The upper half of the tables shows the cumulative amounts paid during successive years related to each accident year. For example, with respect to the accident year 2004, by the end of 2013 £5,843 million had actually been paid in settlement of claims. In addition, as reflected in the lower section of the table, the original estimated ultimate cost of claims of £6,891 million was re-estimated to be £5,919 million at 31 December 2013.

The original estimates will be increased or decreased, as more information becomes known about the individual claims and overall claim frequency and severity.

The Group aims to maintain strong reserves in respect of its general insurance and health business in order to protect against adverse future claims experience and development. As claims develop and the ultimate cost of claims become more certain, the absence of adverse claims experience will result in a release of reserves from earlier accident years, as shown in the loss development tables and movements table (c)(iv) above. However, in order to maintain overall reserve adequacy, the Group establishes strong reserves in respect of the current accident year (2013) where the development of claims is less mature and there is much greater uncertainty attaching to the ultimate cost of claims. Releases from prior accident year reserves are also due to an improvement in the estimated cost of claims.

Key elements of the movement in prior accident year general insurance and health net provisions during 2013 were:

- £32 million release from UK & Ireland, including Group reinsurance business, mainly due to favourable development in health, commercial motor and commercial liability in Ireland, slightly offset by a small strengthening in the UK.
- £9 million release from Europe mainly due to favourable development across a number of lines of business in France.
- £160 million release from Canada mainly due to continued favourable experience on motor, following the legislative changes in Ontario.

Key elements of the release from prior accident year general insurance and health net provisions during 2012 were:

- £47 million release from UK & Ireland, including Group reinsurance business, due to favourable development in Group reinsurance, health and across a number of lines of business in Ireland.
- £51 million release from Europe mainly due to favourable development of personal motor and commercial property claims in France.
- £122 million release from Canada mainly due to continued favourable experience on motor, following the legislative changes in Ontario.

B10 – Insurance liabilities continued**(ii) Gross figures**

Before the effect of reinsurance, the loss development table is:

Accident year	All prior years £m	2004 £m	2005 £m	2006 £m	2007 £m	2008 £m	2009 £m	2010 £m	2011 £m	2012 £m	2013 £m	Total £m
Gross cumulative claim payments												
At end of accident year		(2,971)	(3,345)	(3,653)	(4,393)	(4,915)	(3,780)	(3,502)	(3,420)	(3,055)	(3,068)	
One year later		(4,561)	(5,011)	(5,525)	(6,676)	(7,350)	(5,464)	(5,466)	(4,765)	(4,373)		
Two years later		(4,981)	(5,449)	(5,971)	(7,191)	(7,828)	(6,102)	(5,875)	(5,150)			
Three years later		(5,263)	(5,784)	(6,272)	(7,513)	(8,304)	(6,393)	(6,163)				
Four years later		(5,448)	(6,001)	(6,531)	(7,836)	(8,607)	(6,672)					
Five years later		(5,617)	(6,156)	(6,736)	(8,050)	(8,781)						
Six years later		(5,725)	(6,311)	(6,936)	(8,144)							
Seven years later		(5,792)	(6,467)	(7,015)								
Eight years later		(5,826)	(6,496)									
Nine years later		(5,843)										
Estimate of gross ultimate claims												
At end of accident year		6,891	7,106	7,533	8,530	9,508	7,364	6,911	6,428	6,201	6,122	
One year later		6,557	6,938	7,318	8,468	9,322	7,297	7,006	6,330	6,028		
Two years later		6,371	6,813	7,243	8,430	9,277	7,281	6,950	6,315			
Three years later		6,178	6,679	7,130	8,438	9,272	7,215	6,914				
Four years later		6,008	6,603	7,149	8,409	9,235	7,204					
Five years later		6,003	6,605	7,167	8,446	9,252						
Six years later		5,953	6,591	7,167	8,381							
Seven years later		5,933	6,596	7,176								
Eight years later		5,926	6,604									
Nine years later		5,919										
Estimate of gross ultimate claims		5,919	6,604	7,176	8,381	9,252	7,204	6,914	6,315	6,028	6,122	
Cumulative payments		(5,843)	(6,496)	(7,015)	(8,144)	(8,781)	(6,672)	(6,163)	(5,150)	(4,373)	(3,068)	
	2,792	76	108	161	237	471	532	751	1,165	1,655	3,054	11,002
Effect of discounting	(614)	(1)	(1)	—	(1)	1	—	—	—	—	—	(616)
Present value	2,178	75	107	161	236	472	532	751	1,165	1,655	3,054	10,386
Cumulative effect of foreign exchange movements	—	12	16	22	17	(30)	(21)	(42)	(38)	(33)	—	(97)
Effect of acquisitions	2	1	2	4	—	—	—	—	—	—	—	9
Present value recognised in the statement of financial position	2,180	88	125	187	253	442	511	709	1,127	1,622	3,054	10,298

B10 – Insurance liabilities continued**(iii) Net of reinsurance**

After the effect of reinsurance, the loss development table is:

Accident year	All prior years £m	2004 £m	2005 £m	2006 £m	2007 £m	2008 £m	2009 £m	2010 £m	2011 £m	2012 £m	2013 £m	Total £m
Net cumulative claim payments												
At end of accident year		(2,870)	(3,281)	(3,612)	(4,317)	(4,808)	(3,650)	(3,386)	(3,300)	(2,925)	(2,905)	
One year later		(4,378)	(4,925)	(5,442)	(6,542)	(7,165)	(5,286)	(5,242)	(4,578)	(4,166)		
Two years later		(4,712)	(5,344)	(5,881)	(7,052)	(7,638)	(5,885)	(5,637)	(4,963)			
Three years later		(4,986)	(5,671)	(6,181)	(7,356)	(8,094)	(6,177)	(5,905)				
Four years later		(5,163)	(5,892)	(6,434)	(7,664)	(8,356)	(6,410)					
Five years later		(5,327)	(6,039)	(6,625)	(7,852)	(8,515)						
Six years later		(5,430)	(6,188)	(6,724)	(7,942)							
Seven years later		(5,491)	(6,245)	(6,789)								
Eight years later		(5,524)	(6,294)									
Nine years later		(5,541)										
Estimate of net ultimate claims												
At end of accident year		6,602	6,982	7,430	8,363	9,262	7,115	6,650	6,202	5,941	5,838	
One year later		6,266	6,818	7,197	8,302	9,104	7,067	6,751	6,103	5,765		
Two years later		6,082	6,688	7,104	8,244	9,028	7,036	6,685	6,095			
Three years later		5,882	6,544	6,996	8,249	9,007	6,978	6,644				
Four years later		5,709	6,476	6,980	8,210	8,962	6,940					
Five years later		5,699	6,448	6,992	8,221	8,949						
Six years later		5,639	6,397	6,939	8,149							
Seven years later		5,624	6,372	6,938								
Eight years later		5,613	6,385									
Nine years later		5,600										
Estimate of net ultimate claims		5,600	6,385	6,938	8,149	8,949	6,940	6,644	6,095	5,765	5,838	
Cumulative payments		(5,541)	(6,294)	(6,789)	(7,942)	(8,515)	(6,410)	(5,905)	(4,963)	(4,166)	(2,905)	
	1,720	59	91	149	207	434	530	739	1,132	1,599	2,933	9,593
Effect of discounting	(394)	—	13	3	3	1	1	—	—	—	—	(373)
Present value	1,326	59	104	152	210	435	531	739	1,132	1,599	2,933	9,220
Cumulative effect of foreign exchange movements	—	10	13	21	17	(28)	(20)	(39)	(37)	(32)	—	(95)
Effect of acquisitions	2	1	2	4	—	—	—	—	—	—	—	9
Present value recognised in the statement of financial position	1,328	70	119	177	227	407	511	700	1,095	1,567	2,933	9,134

In the loss development tables shown above, the cumulative claim payments and estimates of cumulative claims for each accident year are translated into sterling at the exchange rates that applied at the end of that accident year. The impact of using varying exchange rates is shown at the bottom of each table. Disposals are dealt with by treating all outstanding and IBNR claims of the disposed entity as 'paid' at the date of disposal.

The loss development tables above include information on asbestos and environmental pollution claims provisions from business written before 2004. The undiscounted claim provisions for continuing operations, net of reinsurance, in respect of this business at 31 December 2013 were £976 million (*FY12: £1,003 million*). The movement in the year reflects strengthening of provisions by £5 million in the UK (*FY12: £8 million*), other decreases in undiscounted provisions of £2 million (*FY12: £51 million increase*), claim payments, reinsurance recoveries and foreign exchange rate movements.

(e) Provision for unearned premiums**Movements**

The following changes have occurred in the provision for unearned premiums (UPR) during the year:

	2013 £m	2012 £m
Carrying amount at 1 January	4,441	4,483
Premiums written during the year	9,361	9,535
Less: Premiums earned during the year	(9,497)	(9,514)
Change in UPR recognised as income	(136)	21
Gross portfolio transfers and acquisitions	—	(6)
Foreign exchange rate movements	(79)	(57)
Carrying amount at 31 December	4,226	4,441

B11 – Liability for investment contracts

This note analyses our investment contract liabilities by type of product and describes how the Group calculates these liabilities and the assumptions used.

(a) Carrying amount

The liability for investment contracts (gross of reinsurance) at 31 December comprised:

	2013 £m	2012 £m
Long-term business		
Participating contracts	70,628	66,849
Non-participating contracts at fair value	48,140	46,299
Non-participating contracts at amortised cost	—	1,400
	48,140	47,699
Total	118,768	114,548
Less: Amounts classified as held for sale	(2,710)	(4,054)
	116,058	110,494

(b) Long-term business investment liabilities

Investment contracts are those that do not transfer significant insurance risk from the contract holder to the issuer, and are therefore treated as financial instruments under IFRS.

Many investment contracts contain a discretionary participation feature in which the contract holder has a contractual right to receive additional benefits as a supplement to guaranteed benefits. These are referred to as participating contracts and are measured according to the methodology and Group practice for long-term business liabilities as described in note B10. They are not measured at fair value as there is currently no agreed definition of fair valuation for discretionary participation features under IFRS. In the absence of such a definition, it is not possible to provide a range of estimates within which a fair value is likely to fall. The IASB has deferred consideration of participating contracts to Phase II of its insurance contracts project.

For participating business, the discretionary participation feature is recognised separately from the guaranteed element and is classified as a liability, referred to as unallocated divisible surplus.

Investment contracts that do not contain a discretionary participation feature are referred to as non-participating contracts and the liability is measured at either fair value or amortised cost. Following the disposal of the US, there are no non-participating investment contracts, that are measured at amortised cost at 31 December 2013.

Of the non-participating investment contracts measured at fair value, £47,684 million in 2013 are unit linked in structure and the fair value liability is equal to the unit reserve plus additional non-unit reserves, if required, on a fair value basis. These contracts are generally classified as 'Level 1' in the fair value hierarchy, as the unit reserve is calculated as the publicly quoted unit price multiplied by the number units in issue, and any non-unit reserve is insignificant.

For unit-linked business, a deferred acquisition cost asset and deferred income reserve liability are recognised in respect of transaction costs and front-end fees respectively, that relate to the provision of investment management services, and which are amortised on a systematic basis over the contract term.

(c) Movements in the year

The following movements have occurred in the gross provisions for investment contracts in the year:

(i) Participating investment contracts

	2013 £m	2012 £m
Carrying amount at 1 January	66,849	67,707
Provisions in respect of new business	3,421	2,695
Expected change in existing business provisions	(2,243)	(2,039)
Variance between actual and expected experience	1,085	102
Impact of operating assumption changes	329	9
Impact of economic assumption changes	(301)	74
Other movements	(47)	(82)
Change in liability recognised as an expense	2,244	759
Effect of portfolio transfers, acquisitions and disposals ¹	(39)	—
Foreign exchange rate movements	1,380	(1,610)
Other movements ²	194	(7)
Carrying amount at 31 December	70,628	66,849

¹ Disposals in 2013 relate to Aseval.

² Other movements (outside change in liability recognised as an expense) in 2013 of £194 million represents the reclassification of liabilities from insurance to participating investment in Eurovita.

B11 – Liability for investment contracts continued

For many types of long-term business, including unit-linked and participating funds, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. Minor variances arise from differences between actual and expected experience for persistency, mortality and other demographic factors.

The £0.3 billion impact of operating assumption changes relates to the impact on with profit liabilities in the With-Profits sub-fund (WPSF), of a decision to discontinue the charge on assets shares for guarantee costs, and to refund previously deducted charges to asset shares.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of participating investment contract liabilities. For participating business, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact on profit. Where assumption changes do impact on profit, these are included in the effect of changes in assumptions and estimates during the year shown in note B13, together with the impact of movements in related non-financial assets.

(ii) Non-participating investment contracts

	2013 £m	Restated ¹ 2012 £m
Carrying amount at 1 January	47,699	45,659
Provisions in respect of new business	3,386	3,851
Expected change in existing business provisions	(2,698)	(2,531)
Variance between actual and expected experience	3,122	982
Impact of operating assumption changes	4	14
Impact of economic assumption changes	1	4
Other movements	46	(18)
Change in liability	3,861	2,302
Effect of portfolio transfers, acquisitions and disposals ²	(3,785)	25
Foreign exchange rate movements	365	(404)
Other movements	—	117
Carrying amount at 31 December	48,140	47,699

1 "Other movements" (outside Change in liability) of £117 million in FY12 include £111 million in respect of the reclassification of liabilities from insurance to non-participating investment. In the FY12 statements this £111 million was included within "Other movements" (within change in liability).

2 Disposals include £1,826 million related to the disposal of the US business, and £1,955 million related to the disposal of Ark Life.

The variance between actual and expected experience of £3.1 billion was primarily driven by favourable movements in investment markets in 2013. The rise in investment markets increased the value of unit linked contracts, which comprise the vast majority of the non-participating investment contract liabilities. For unit-linked investment contracts, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. Minor variances arise from differences between actual and expected experience for persistency, mortality and other demographic factors.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of non-participating investment contract liabilities. The impact of assumption changes on profit are included in the effect of changes in assumptions and estimates during the year shown in note B13, which combines participating and non-participating investment contracts together with the impact of movements in related non-financial assets.

B12 – Reinsurance assets

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

(a) Carrying amounts

The reinsurance assets at 31 December comprised:

	2013 £m	2012 £m
Long-term business		
Insurance contracts	3,734	4,291
Participating investment contracts	2	3
Non-participating investment contracts ¹	2,048	1,678
	5,784	5,972
Outstanding claims provisions	53	93
	5,837	6,065
General insurance and health		
Outstanding claims provisions	849	900
Provisions for claims incurred but not reported	315	354
	1,164	1,254
Provisions for unearned premiums	256	248
	1,420	1,502
	7,257	7,567
Less: Amounts classified as held for sale	(37)	(883)
Total	7,220	6,684

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

Of the above total, £5,553 million (FY12: £5,251 million) is expected to be recovered more than one year after the statement of financial position date.

B12 – Reinsurance assets continued**(b) Assumptions**

The assumptions, including discount rates, used for reinsurance contracts follow those used for insurance contracts. Reinsurance assets are valued net of an allowance for their recoverability.

(c) Movements

The following movements have occurred in the reinsurance asset during the year:

(i) In respect of long-term business provisions

	2013 £m	2012 £m
Carrying amount at 1 January	5,972	5,373
Asset in respect of new business	268	387
Expected change in existing business asset	19	166
Variance between actual and expected experience	454	197
Impact of operating assumption changes	247	(306)
Impact of economic assumption changes	(426)	143
Other movements	81	(137)
Change in asset	643	450
Effect of portfolio transfers, acquisitions and disposals ¹	(873)	197
Foreign exchange rate movements	42	(48)
Carrying amount at 31 December	5,784	5,972

¹ Includes £631 million related to the disposal of the US business in 2013, £3 million related to the disposal of Aseval, and £230 million related to the disposal of Ark Life.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of reinsurance assets. The changes to the reinsurance asset from assumption changes mainly relates to business in the UK and Ireland, with corresponding movements in gross insurance contract liabilities. For participating businesses, a movement in reinsurance assets is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact on profit. Where assumption changes do impact profit, these are included in the effect of changes in assumptions and estimates during the year shown in note B13, together with the impact of movements in related liabilities and other non-financial assets.

(ii) In respect of general insurance and health outstanding claims provisions and IBNR

	2013 £m	2012 £m
Carrying amount at 1 January	1,254	1,369
Impact of changes in assumptions	(45)	22
Reinsurers' share of claim losses and expenses		
Incurred in current year	312	286
Incurred in prior years	(32)	13
Exceptional strengthening of general insurance latent claims provisions	—	—
Reinsurers' share of incurred claim losses and expenses	280	299
Less:		
Reinsurance recoveries received on claims		
Incurred in current year	(169)	(138)
Incurred in prior years	(140)	(150)
Reinsurance recoveries received in the year	(309)	(288)
Unwind of discounting	10	13
Other movements	—	—
Change in reinsurance asset recognised as income	(64)	46
Effect of portfolio transfers, acquisitions and disposals	(9)	(136)
Foreign exchange rate movements	(11)	(26)
Other movements	(6)	1
Carrying amount at 31 December	1,164	1,254

(iii) Reinsurers' share of the provision for UPR

	2013 £m	2012 £m
Carrying amount at 1 January	248	245
Premiums ceded to reinsurers in the year	641	641
Less: Reinsurers' share of premiums earned during the year	(643)	(636)
Change in reinsurance asset recognised as income	(2)	5
Reinsurers' share of portfolio transfers and acquisitions	7	3
Foreign exchange rate movements	—	(5)
Other movements	3	—
Carrying amount at 31 December	256	248

B13 – Effect of changes in assumptions and estimates during the year

Certain estimates and assumptions used in determining our liabilities for insurance and investment contract business were changed from 2012 to 2013, affecting the profit recognised for the year with an equivalent effect on liabilities. This note analyses the effect of the changes. This note 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.

	Effect on profit 2013 £m	Effect on profit 2012 £m
Assumptions		
Long-term insurance business		
Interest rates	1,389	(515)
Expenses	3	11
Persistency rates	(1)	—
Mortality for assurance contracts	8	—
Mortality for annuity contracts	85	241
Tax and other assumptions	20	(207)
Investment contracts		
Interest rates	—	(2)
Expenses	—	(1)
Persistency rates	—	—
Tax and other assumptions	—	—
General insurance and health business		
Change in loss ratio assumptions	3	—
Change in discount rate assumptions	33	(21)
Change in expense ratio and other assumptions	—	(21)
Total	1,540	(515)

The impact of interest rates for long-term business relates primarily to the UK and Ireland driven by the increase in valuation interest rates. This had the effect of decreasing 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 annuitant mortality assumptions relates to a slight weakening of annuitant mortality assumptions in the UK and Ireland. Mortality assumptions in the UK and Ireland are reviewed each year, and updated to reflect recent experience.

B14 – Unallocated divisible surplus

An unallocated divisible surplus (UDS) is established where the nature of policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain at the reporting date. Therefore the expected duration for settlement of the UDS is not defined.

The following movements have occurred in the year:

	2013 £m	2012 £m
Carrying amount at 1 January	6,986	650
Change in participating contract assets	(262)	6,140
Change in participating contract liabilities	(22)	253
Other movements	4	(77)
Change in liability recognised as an expense	(280)	6,316
Effect of portfolio transfers, acquisitions and disposals	(115)	1
Foreign exchange rate movements	118	24
Other movements	—	(5)
Carrying amount at 31 December	6,709	6,986
Less: Amounts classified as held for sale	4	(55)
	6,713	6,931

Following the reversal of previous losses in Italy and Spain, all Italian participating funds at 31 December 2013 have a positive UDS balance with the exception of Eurovita (which is held for sale) and a number of smaller funds in Italy. In Spain, all participating funds had positive UDS balances at 31 December 2013.

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 are 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 the estimation of the recoverable negative UDS balance uses a real-world embedded value method, with a risk-discount rate of 6.6% (FY12: 6.25%). The embedded value method includes implicit allowance for the time value of options and guarantees. In Spain, the estimation of the recoverable negative UDS balance uses a market-consistent embedded value method.

At 31 December 2013 there was no negative UDS in Spain and consequently testing was not required. The carrying value of UDS was £132 million positive (FY12: £95 million positive in aggregate, though certain funds had a negative UDS balance totalling £39 million).

At 31 December 2013, the negative UDS balances in Italy were tested for recoverability and £42 million (£39 million Eurovita) of negative UDS was considered irrecoverable (FY12: £130 million, £108 million Eurovita). The remaining carrying value of negative UDS in Italy is £5 million, of which £4 million is in Eurovita. The aggregate UDS balance was £205 million positive at 31 December 2013 (FY12: £2 million negative).

B15 – Borrowings

Our borrowings are either core structural borrowings or operational borrowings. This note shows the carrying values and contractual maturity amounts of each type, and explains their main features and movements during the year.

(a) Analysis of total borrowings

Total borrowings comprise:

	2013 £m	Restated ¹ 2012 £m
Core structural borrowings, at amortised cost	5,125	5,139
Operational borrowings, at amortised cost	1,410	1,853
Operational borrowings, at fair value	1,313	1,332
	2,723	3,185
	7,848	8,324
Less: Amounts classified as held for sale	(29)	(145)
	7,819	8,179

¹ Restated for the adoption of IFRS 10. See note 1 for further details.

Movements during the year

Movements in borrowings during the year were:

	2013			Restated ¹ 2012		
	Core Structural £m	Operational £m	Total £m	Core Structural £m	Operational £m	Total £m
New borrowings drawn down, including commercial paper, net of expenses	2,137	184	2,321	2,200	452	2,652
Repayment of borrowings, including commercial paper	(2,179)	(347)	(2,526)	(2,295)	(347)	(2,642)
Net cash (outflow)/inflow	(42)	(163)	(205)	(95)	105	10
Impact of the adoption of IFRS 10 ¹	—	—	—	—	(15)	(15)
Foreign exchange rate movements	24	(42)	(18)	(54)	(130)	(184)
Loans repaid for non-cash consideration ²	—	(183)	(183)	—	—	—
Fair value movements	—	(4)	(4)	—	43	43
Amortisation of discounts and other non-cash items	5	(21)	(16)	1	(13)	(12)
Movements in debt held by Group companies ³	(1)	(49)	(50)	32	—	32
Movements in the year	(14)	(462)	(476)	(116)	(10)	(126)
Balance at 1 January	5,139	3,185	8,324	5,255	3,195	8,450
Balance at 31 December	5,125	2,723	7,848	5,139	3,185	8,324

¹ Comprises the impact of adoption of IFRS 10 on prior year comparatives and the resulting consolidation and deconsolidation of entities. See note B2 for further details.

² Includes borrowings disposed of / repaid as part of the disposal of the US business in 2013 of £179 million.

³ Certain subsidiary companies have purchased issued subordinated notes and securitised loan notes as part of their investment portfolios. In the consolidated statement of financial position, borrowings are shown net of these holdings but movements in such holdings over the year are reflected in the tables above.

All movements in fair value in 2012 and 2013 on securitised mortgage loan notes designated as fair value through profit or loss were attributable to changes in market conditions.

B16 – Pension obligations

The Group operates a large number of defined benefit and defined contribution pension schemes. The material defined benefit schemes are in the UK, Ireland, and Canada with the main UK scheme being the largest. The assets and liabilities of these defined benefit schemes as at 31 December 2013 are shown below.

	2013				2012			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Total fair value of scheme assets	11,734	431	233	12,398	11,647	406	228	12,281
Present value of defined benefit obligation	(11,185)	(640)	(334)	(12,159)	(10,501)	(777)	(397)	(11,675)
Net surplus/(deficits) in the schemes	549	(209)	(101)	239	1,146	(371)	(169)	606
Surplus included in other assets	606	—	—	606	1,257	—	—	1,257
Deficit included in provisions	(57)	(209)	(101)	(367)	(111)	(371)	(169)	(651)
	549	(209)	(101)	239	1,146	(371)	(169)	606

B16 – Pension obligations continued**(i) Movements in the scheme deficits and surpluses**

Movements in the pension schemes' surpluses and deficits comprise:

	Fair Value of Scheme Assets £m	Present Value of defined benefit obligation £m	IAS 19 Pensions net surplus £m
2013			
Net surplus in the schemes at 1 January	12,281	(11,675)	606
Current service costs	—	(4)	(4)
Past service costs – amendments ¹	—	142	142
Past service costs – curtailment gain	—	5	5
Administrative expenses ²	—	(18)	(18)
Total pension cost charged to net operating expenses	—	125	125
Net interest credited/(charged) to investment income/(finance costs) ³	543	(506)	37
Total recognised in income statement from continuing operations	543	(381)	162
Remeasurements:			
Actual return on these assets	366	—	366
Less: Interest income on scheme assets	(543)	—	(543)
Return on scheme assets excluding amounts in interest income	(177)	—	(177)
Losses from change in financial assumptions	—	(730)	(730)
Gains from change in demographic assumptions	—	186	186
Experience gains	—	47	47
Total remeasurements recognised in other comprehensive income from continuing operations	(177)	(497)	(674)
Employer contributions	149	—	149
Employee contributions	1	(1)	—
Benefits paid	(371)	371	—
Administrative expenses paid from scheme assets ²	(18)	18	—
Foreign exchange rate movements	(10)	6	(4)
Net surplus in the scheme at 31 December	12,398	(12,159)	239

¹ Includes £145 million gain relating to plan amendments to the Irish pension scheme.² Administrative expenses are expensed as incurred.³ Net interest income of £57 million has been credited to investment income and net interest expense of £20 million has been charged to finance costs.⁴ Total recognised in income from discontinued operations is £nil and total remeasurements recognised in other comprehensive income from discontinued operations is £nil.

The net surplus in the pension schemes in 2013 was adversely affected by a narrowing of the spread between UK corporate bond yields and gilt yields. This was partly offset by a variety of factors which increased the surplus, including deficit funding contributions, positive equity and property market performance, and reductions to future member benefits.

B16 – Pension obligations continued

2012 (Restated) ¹	Fair Value of Scheme Assets £m	Present Value of defined benefit obligation £m	IAS 19 Pensions net surplus £m
Net surplus in the schemes at 1 January	11,791	(10,527)	1,264
Current service costs	—	(6)	(6)
Past service costs – curtailment gain	—	15	15
Administrative expenses ²	—	(13)	(13)
Total pension cost charged to net operating expenses	—	(4)	(4)
Net interest credited/(charged) to investment income/(finance costs) ³	577	(509)	68
Total recognised in income from continuing operations	577	(513)	64
Remeasurements:			
Actual return on these assets	611	—	611
Less: Interest income on scheme assets	(577)	—	(577)
Return on scheme assets excluding amounts in interest income	34	—	34
Losses from change in financial assumptions	—	(914)	(914)
Experience losses	—	(100)	(100)
Total remeasurements recognised in other comprehensive income from continuing operations	34	(1,014)	(980)
Employer contributions	250	—	250
Employee contributions	2	(2)	—
Benefits paid	(344)	344	—
Administrative expenses paid from scheme assets ²	(13)	13	—
Foreign exchange rate movements	(16)	24	8
Net surplus in the scheme at 31 December	12,281	(11,675)	606

1 Following the adoption of the revised IAS 19 "Employee Benefits", the Group has retrospectively applied the changes to the comparative periods. The key impact of the standard is the replacement of 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. This has resulted in an increase of £150 million recognised in income and a corresponding decrease in remeasurements recognised in other comprehensive income.

2 Administrative expenses are expensed as incurred.

3 Net interest income of £87 million has been credited to investment income and net interest expense of £19 million has been charged to finance costs.

4 Total recognised in income from discontinued operations is £nil and total remeasurements recognised in other comprehensive income from discontinued operations is £nil.

B17 — Cash and cash equivalents

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

	31 December 2013 £m	Restated ¹ 31 December 2012 £m
Cash and cash equivalents	24,999	23,102
Cash and cash equivalents of operations classified as held for sale	351	917
Bank overdrafts	(493)	(566)
Net cash and cash equivalents at 31 December	24,857	23,453

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

B18 – Related party transactions

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

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

Services provided to, and by related parties

	2013				2012 ¹			
	Income earned in period £m	Expenses incurred in period £m	Payable at period end £m	Receivable at period end £m	Income earned in period £m	Expenses incurred in period £m	Payable at period end £m	Receivable at period end £m
Associates	3	(3)	—	11	—	(4)	—	9
Joint ventures	51	—	—	56	23	(1)	—	54
Employee pension schemes	12	—	—	9	12	—	—	6
	66	(3)	—	76	35	(5)	—	69

¹ Restated for the adoption of IFRS 10. See note B2 for details.

Transactions with joint ventures in the UK relate to the property management undertakings. Our interest in these joint ventures comprises a mix of equity and loans, together with the provision of administration services and financial management to many of them. Our UK life insurance companies earn interest on loans advanced to these entities. Our fund management companies also charge fees to these joint ventures for administration services and for arranging external finance.

Our UK fund management companies manage most of the assets held by the Group's main UK staff pension scheme, for which they charge fees based on the level of funds under management. The main UK scheme holds investments in Group-managed funds and insurance policies with other Group companies.

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

B19 – Risk management

This note sets out the major risks our businesses and its shareholders face and describes the Group's approach to managing these. It also gives sensitivity analyses around the major economic and non-economic assumptions that can cause volatility in the Group's earnings and capital position.

(a) Risk management framework

The risk management framework (RMF) in Aviva forms an integral part of the management and Board processes and decision-making framework across the Group. The key elements of our risk management framework comprise risk appetite; risk governance, including risk policies and business standards, risk oversight committees and roles and responsibilities; and the processes we use to identify, measure, manage, monitor and report (IMMMR) risks, including the use of our risk models and stress and scenario testing.

For the purposes of risk identification and measurement, and aligned to Aviva's risk policies, risks are usually grouped by risk type: credit, market, liquidity, life insurance, general insurance, asset management and operational risk. Risks falling within these types may affect a number of metrics including those relating to balance sheet strength, liquidity and profit. They may also affect the performance of the products we deliver to our customers and the service to our customers and distributors, which can be categorised as risks to our brand and reputation.

To promote a consistent and rigorous approach to risk management across all businesses we have a set of risk policies and business standards which set out the risk strategy, appetite, framework and minimum requirements for the Group's worldwide operations. On a semi-annual basis the business chief executive officers and chief risk officers sign-off compliance with these policies and standards, providing assurance to the relevant oversight committees that there is a consistent framework for managing our business and the associated risks.

A regular top-down key risk identification and assessment process is carried out by the risk function. This includes the consideration of emerging risks and is supported by deeper thematic reviews. This process is replicated at the business unit level. The risk assessment processes are used to generate risk reports which are shared with the relevant risk committees.

Risk models are an important tool in our measurement of risks and are used to support the monitoring and reporting of the risk profile and in the consideration of the risk management actions available. We carry out a range of stress (where one risk factor, such as equity returns, is assumed to vary) and scenario (where combinations of risk factors are assumed to vary) tests to evaluate their impact on the business and the management actions available to respond to the conditions envisaged.

Roles and responsibilities for risk management in Aviva are based around the 'three lines of defence model' where ownership for risk is taken at all levels in the Group. Line management in the business is accountable for risk management, including the implementation of the risk management framework and embedding of the risk culture. The risk function is accountable for quantitative and qualitative oversight and challenge of the IMMMR process and for developing the risk management framework. Internal Audit provides an independent assessment of the risk framework and internal control processes.

Board oversight of risk and risk management across the Group is maintained on a regular basis through its Risk Committee. The Board has overall responsibility for determining risk appetite, which is an expression of the risk the business is willing to take. Risk appetites are set relative to capital, liquidity and franchise value at Group and in the business units. Economic capital risk appetites are also set for each risk type. The Group's position against risk appetite is monitored and reported to the Board on a regular basis. The oversight of risk and risk management at the Group level is supported by the Asset Liability Committee (ALCO), which focuses on business and financial risks, and the Operational Risk and Reputation Committee (ORRC) which focuses on operational and reputational risks. Similar committee structures with equivalent terms of reference exist in the business units.

B19 – Risk management continued

Further information on the types and management of specific risk types is given in sections (b) - (j) below.

The risk management framework of a small number of our joint ventures and strategic equity holdings differs from the Aviva framework outlined in this note. We work with these entities to understand how their risks are managed and to align them, where possible, with Aviva's framework.

(b) Credit risk

Credit risk is the risk of financial loss as a result of the default or failure of third parties to meet their payment obligations to Aviva, or variations in market values as a result of changes in expectations related to these risks. Credit risk is an area where we can provide the returns required to satisfy policyholder liabilities and to generate returns for our shareholders. In general we prefer to take credit risk over equity and property risks, due to the better expected risk adjusted return, our credit risk analysis capability and the structural investment advantages conferred to insurers with long-dated, relatively illiquid liabilities.

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

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

A detailed breakdown of the Group's current credit exposure by credit quality is shown below.

(i) Financial exposures by credit ratings

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

As at 31 December 2013	AAA	AA	A	BBB	Speculative grade	Not rated	Carrying value including held for sale £m	Less: Amounts classified as held for sale £m	Carrying value £m
Debt securities	13.0%	33.1%	20.8%	24.9%	2.8%	5.4%	126,805	(2,420)	124,385
Reinsurance assets	0.3%	53.6%	37.1%	1.1%	0.1%	7.8%	7,257	(37)	7,220
Other investments	—	0.3%	0.7%	1.0%	0.1%	97.9%	31,451	(201)	31,250
Loans	3.8%	12.1%	1.2%	—	0.3%	82.6%	23,879	—	23,879
Total							189,392	(2,658)	186,734

As at 31 December 2012 (Restated ¹)	AAA	AA	A	BBB	Speculative grade	Not rated	Carrying value including held for sale £m	Less: Amounts classified as held for sale £m	Carrying value £m
Debt securities	24.4%	16.9%	23.9%	25.4%	4.2%	5.2%	161,777	(33,617)	128,160
Reinsurance assets	0.4%	63.4%	30.1%	0.7%	0.1%	5.3%	7,567	(883)	6,684
Other investments	0.1%	0.2%	2.4%	2.1%	1.6%	93.6%	29,068	(1,550)	27,518
Loans	5.8%	8.2%	1.2%	0.1%	0.7%	84.0%	27,934	(3,397)	24,537
Total							226,346	(39,447)	186,899

¹ Restated for the adoption of IFRS10. See note B2 for further details.

(ii) Financial exposures to peripheral European countries and worldwide banks

Included in our debt securities and other financial assets are exposures to peripheral European countries and worldwide banks. We continued in 2013 to limit our direct shareholder and participating assets exposure to the governments (including local authorities and agencies) and banks of Greece, Ireland, Portugal, Italy and Spain, which has been offset by an increase in market values.

Information on our exposures to peripheral European sovereigns and banks is provided in note D.3.3.5. We continue to monitor closely the situation in the eurozone and have had additional restrictions on further investment in place since late 2009 as well as taking actions to reduce exposure to higher risk assets. However, in the light of the improving economic situation in Ireland, we plan to allow a modest increase in our exposure to Irish sovereign debt during 2014.

B19 – Risk management continued

(iii) Other investments

Other investments (including assets of operations classified as held for sale) include unit trusts and other investment vehicles; derivative financial instruments, representing positions to mitigate the impact of adverse market movements; and other assets includes deposits with credit institutions and minority holdings in property management undertakings.

The credit quality of the underlying debt securities within investment vehicles is managed by the safeguards built into the investment mandates for these funds which determine the funds' risk profiles. At the Group level, we also monitor the asset quality of unit trusts and other investment vehicles against Group set limits.

A proportion of the assets underlying these investments are represented by equities and so credit ratings are not generally applicable. Equity exposures are managed against agreed benchmarks that are set with reference to overall appetite for market risk.

(iv) Loans

The Group loan portfolio principally comprises:

- 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; and
- Mortgage loans collateralised by property assets.

We use loan to value; interest and debt service cover; and diversity and quality of the tenant base metrics to internally monitor our exposures to mortgage loans. We use credit quality, based on dynamic market measures, and collateralisation rules to manage our stock lending activities. Policy loans are loans and advances made to policyholders, and are collateralised by the underlying policies.

(v) Credit concentration risk

The long-term and general insurance businesses are generally not individually exposed to concentrations of credit risk due to the regulations applicable in most markets and the Group credit policy and limits framework, which limit investments in individual assets and asset classes. Credit concentrations are monitored as part of the regular credit monitoring process and are reported to Group ALCO. With the exception of government bonds the largest aggregated counterparty exposure within shareholder assets is approximately 1.9% of the total shareholder assets (gross of 'held for sale').

(vi) Reinsurance credit exposures

The Group is exposed to concentrations of risk with individual reinsurers due to the nature of the reinsurance market and the restricted range of reinsurers that have acceptable credit ratings. The Group operates a policy to manage its reinsurance counterparty exposures, by limiting the reinsurers that may be used and applying strict limits to each reinsurer. Reinsurance exposures are aggregated with other exposures to ensure that the overall risk is within appetite. The Group risk function has an active monitoring role with escalation to the Chief Financial Officer (CFO), Group ALCO and the Board Risk Committee as appropriate.

The Group's largest reinsurance counterparty is Swiss Reinsurance Company Ltd (including subsidiaries). At 31 December 2013, the reinsurance asset recoverable, including debtor balances, from Swiss Reinsurance Company Ltd was £1,620 million.

(vii) Securities finance

The Group has significant securities financing operations within the UK and smaller operations in some other businesses. The risks within this activity are mitigated by over-collateralisation and minimum counterparty credit quality requirements which are designed to minimise residual risk. The Group operates strict standards around counterparty quality, collateral management, margin calls and controls.

(viii) Derivative credit exposures

The Group is exposed to counterparty credit risk through derivative trades. This risk is mitigated through collateralising almost all trades (the exception being certain foreign exchange trades where it has historically been the market norm not to collateralise). Residual exposures are captured within the Group's credit management framework.

(ix) Unit-linked business

In unit-linked business the policyholder bears the direct market risk and credit risk on investment assets in the unit funds and the shareholders' exposure to credit risk is limited to the extent of the income arising from asset management charges based on the value of assets in the fund.

B19 – Risk management continued**(x) Impairment of financial assets**

The following table provides information regarding the carrying value of financial assets subject to impairment testing that have been impaired and the ageing of those assets that are past due but not impaired. The table excludes assets carried at fair value through profit or loss or 'held for sale'.

	Neither past due nor impaired £m	Financial assets that are past due but not impaired				Financial assets that have been impaired £m	Carrying value £m
		0–3 months £m	3–6 months £m	6 months–1 year £m	Greater than 1 year £m		
At 31 December 2013							
Debt securities	1,133	—	—	—	—	—	1,133
Reinsurance assets	7,220	—	—	—	—	—	7,220
Other investments	7	—	—	—	—	6	13
Loans	5,263	—	—	—	—	139	5,402
Receivables and other financial assets	6,934	56	26	18	22	4	7,060

	Neither past due nor impaired £m	Financial assets that are past due but not impaired				Financial assets that have been impaired £m	Carrying value £m
		0–3 months £m	3–6 months £m	6 months–1 year £m	Greater than 1 year £m		
At 31 December 2012 (Restated¹)							
Debt securities	517	—	—	—	—	—	517
Reinsurance assets	6,684	—	—	—	—	—	6,684
Other investments	9	—	—	—	—	8	17
Loans	5,469	—	—	—	—	151	5,620
Receivables and other financial assets	7,384	43	12	13	24	—	7,476

¹ Restated for the impact of IFRS 10 (see note B2 for further details) and to exclude financial assets carried at fair value through profit or loss.

Where assets have been classed as 'past due and impaired', an analysis is made of the risk of default and a decision is made whether to seek to mitigate the risk. There were no material financial assets that would have been past due or impaired had the terms not been renegotiated.

(c) Market risk

Market risk is the risk of adverse financial impact resulting, directly or indirectly from fluctuations in interest rates, foreign currency exchange rates, equity and property prices. Market risk arises in business units due to fluctuations in both the value of liabilities and the value of investments held. At Group level, it also arises in relation to the overall portfolio of international businesses and in the value of investment assets owned directly by the shareholders. We actively seek some market risks as part of our investment and product strategy. However, we have limited appetite for interest rate risk as we do not believe it is adequately rewarded.

The management of market risk is undertaken at business unit and at Group level. Businesses manage market risks locally using the Group market risk framework and within local regulatory constraints. Group Risk is responsible for monitoring and managing market risk at Group level and has established criteria for matching assets and liabilities to limit the impact of mismatches due to market movements.

In addition, where the Group's long-term savings businesses have written insurance and investment products where the majority of investment risks are borne by its policyholders, these risks are managed in line with local regulations and marketing literature, in order to satisfy the policyholders' risk and reward objectives. The Group writes unit-linked business in a number of its operations. The shareholders' exposure to market risk on this business is limited to the extent that income arising from asset management charges is based on the value of assets in the fund.

The most material types of market risk that the Group is exposed to are described below.

(i) Equity price risk

The Group is subject to equity price risk arising from changes in the market values of its equity securities portfolio.

We continue to limit our direct equity exposure in line with our risk preferences. The disposal of the Group's remaining shareholding in Delta Lloyd has decreased the Group's shareholder equity price risk and, in particular, has led to a fall in equity exposures. At a business unit level, investment limits and local asset admissibility regulations require that business units hold diversified portfolios of assets thereby reducing exposure to individual equities. The Group does not have significant holdings of unquoted equity securities.

Equity risk is also managed using a variety of derivative instruments, including futures and options. Businesses actively model the performance of equities through the use of risk models, in particular to understand the impact of equity performance on guarantees, options and bonus rates. At 31 December 2013 the Group's shareholder funds held £1.5 billion notional of equity hedge put spreads, with up to 15 months to maturity with an average strike of 82-68% of the prevailing market levels on 31 December 2013.

Sensitivity to changes in equity prices is given in section '(j) risk and capital management' below.

B19 – Risk management continued**(ii) Property price risk**

The Group is subject to property price risk directly due to holdings of investment properties in a variety of locations worldwide and indirectly through investments in mortgages and mortgage backed securities. Investment in property is managed at business unit level, and is subject to local regulations on asset admissibility, liquidity requirements and the expectations of policyholders.

As at 31 December 2013, no material derivative contracts had been entered into to mitigate the effects of changes in property prices.

Sensitivity to changes in property prices is given in section '(j) risk and capital management' below.

(iii) Interest rate risk

Interest rate risk arises primarily from the Group's investments in long-term debt and fixed income securities and their movement relative to the value placed on the insurance liabilities. A number of policyholder product features have an influence on the Group's interest rate risk. The major features include guaranteed surrender values, guaranteed annuity options, and minimum surrender and maturity values.

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

The Group typically manages interest rate risk by investing in fixed interest securities which closely match the interest rate sensitivity of the liabilities where this is available. Interest rate risk is also managed in some business units using a variety of derivative instruments, including futures, options, swaps, caps and floors. Sensitivity to changes in interest rates is given in section '(j) risk and capital management' below.

(iv) Inflation risk

Inflation risk arises primarily from the Group's exposure to general insurance claims inflation, to inflation linked benefits within the defined benefit staff pension schemes and within the UK annuity portfolio and to expense inflation. Increases in long-term inflation expectations are closely linked to long-term interest rates and so are frequently considered with interest rate risk. Exposure to inflation risk is monitored through economic capital modelling, sensitivity testing and stress and scenario testing. The Group typically manages inflation risk through its investment strategy and, in particular, by investing in inflation linked securities and through a variety of derivative instruments, including inflation linked swaps.

(v) Currency risk

The Group has minimal exposure to currency risk from financial instruments held by business units in currencies other than their functional currencies, as nearly all such holdings are backing either by unit-linked or with-profit contract liabilities or hedging.

The Group operates internationally and as a result is exposed to foreign currency exchange risk arising from fluctuations in exchange rates of various currencies. Approximately half of the Group's premium income arises in currencies other than sterling and the Group's net assets are denominated in a variety of currencies, of which the largest are euro, sterling and Canadian dollars. The Group does not hedge foreign currency revenues as these are substantially retained locally to support the growth of the Group's business and meet local regulatory and market requirements.

Businesses aim to maintain sufficient assets in local currency to meet local currency liabilities, however movements may impact the value of the Group's consolidated shareholders' equity which is expressed in sterling. This aspect of foreign exchange risk is monitored and managed centrally, against pre-determined limits. These exposures are managed by aligning the deployment of regulatory capital by currency with the Group's regulatory capital requirements by currency. Currency borrowings and derivatives are used to manage exposures within the limits that have been set.

At 31 December 2013 and 2012, the Group's total equity deployment by currency including assets 'held for sale' was:

	Sterling £m	Euro £m	CAD\$ £m	Other £m	Total £m
Capital 31 December 2013	4,942	4,178	987	910	11,017
Capital 31 December 2012	4,445	4,648	1,119	1,148	11,360

A 10% change in sterling to euro/Canada\$ (CAD) foreign exchange rates would have had the following impact on total equity.

	10% increase in sterling/ euro rate £m	10% decrease in sterling/ euro rate £m	10% increase in sterling/ CAD\$ rate £m	10% decrease in sterling/ CAD\$ rate £m
Net assets at 31 December 2013	(260)	360	(81)	99
Net assets at 31 December 2012	(386)	411	(112)	106

A 10% change in sterling to euro/Canada\$ (CAD) foreign exchange rates relative to the year-end rate would have had the following impact on profit before tax, excluding 'discontinued operations'.

	10% increase in sterling/ euro rate £m	10% decrease in sterling/ euro rate £m	10% increase in sterling/ CAD\$ rate £m	10% decrease in sterling/ CAD\$ rate £m
Impact on profit before tax 31 December 2013	8	7	(5)	(4)
Impact on profit before tax 31 December 2012	(32)	32	(20)	5

B19 – Risk management continued

The balance sheet changes arise from retranslation of business unit statements of financial position from their functional currencies into sterling, with above movements being taken through the currency translation reserve. These balance sheet movements in exchange rates therefore have no impact on profit. Net asset and profit before tax figures are stated after taking account of the effect of currency hedging activities.

(vi) Derivatives risk

Derivatives are used by a number of the businesses. Activity is overseen by the Group risk function, which monitors exposure levels and approves large or complex transactions. Derivatives are primarily used for efficient investment management, risk hedging purposes, or to structure specific retail savings products.

The Group applies strict requirements to the administration and valuation processes it uses, and has a control framework that is consistent with market and industry practice for the activity that is undertaken.

(vii) Correlation risk

The Group recognises that lapse behaviour and potential increases in consumer expectations are sensitive to and interdependent with market movements and interest rates. These interdependencies are taken into consideration in the internal economic capital model and in scenario analysis.

(d) 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. 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 financial resources to meet its obligations as they fall due through the application of a Group liquidity risk policy and business standard. At Group and business unit level, there is a liquidity risk appetite which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario. In addition to the existing liquid resources and expected inflows, the Group maintains significant undrawn committed borrowing facilities (£1.5 billion) from a range of leading international banks to further mitigate this risk.

Maturity analyses

The following tables show the maturities of our insurance and investment contract liabilities, and of the financial and reinsurance assets to meet them.

(i) Analysis of maturity of insurance and investment contract liabilities

For non-linked insurance business, the following table shows the gross liability at 31 December 2013 and 2012 analysed by remaining duration. The total liability is split by remaining duration in proportion to the cash-flows expected to arise during that period, as permitted under IFRS 4, *Insurance Contracts*.

Almost all linked business and non-linked investment contracts may be surrendered or transferred on demand. For such contracts, the earliest contractual maturity date is therefore the current statement of financial position date, for a surrender amount approximately equal to the current statement of financial position liability. We expect surrenders, transfers and maturities to occur over many years, and the tables reflect the expected cash flows for these contracts. However, contractually, the total liability for linked business and non-linked investment contracts would be shown in the 'within 1 year' column below. Changes in durations between 2012 and 2013 reflect evolution of the portfolio, and changes to the models for projecting cash-flows. This table includes amounts held for sale.

	Total £m	On demand or within 1 year £m	1-5 years £m	5-15 years £m	Over 15 years £m
At 31 December 2013					
Long-term business					
Insurance contracts – non-linked	81,458	7,900	25,223	29,620	18,715
Investment contracts – non-linked	60,111	2,098	10,422	17,594	29,997
Linked business	73,458	6,244	16,403	23,483	27,328
General insurance and health	14,534	6,350	5,591	2,197	396
Total contract liabilities	229,561	22,592	57,639	72,894	76,436

	Total £m	On demand or within 1 year £m	1-5 years £m	5-15 years £m	Over 15 years £m
At 31 December 2012					
Long-term business					
Insurance contracts – non-linked	117,602	8,303	31,894	44,455	32,950
Investment contracts – non-linked	59,788	2,491	12,390	16,679	28,228
Linked business	69,690	5,667	18,203	21,590	24,230
General insurance and health	15,006	6,166	5,763	2,456	621
Total contract liabilities	262,086	22,627	68,250	85,180	86,029

B19 – Risk management continued**(ii) Analysis of maturity of financial assets**

The following table provides an analysis, by maturity date of the principal, of the carrying value of financial assets which are available to fund the repayment of liabilities as they crystallise. This table excludes assets held for sale.

	Total £m	On demand or within 1 year £m	1-5 years £m	Over 5 years £m	No fixed term (perpetual) £m
At 31 December 2013					
Debt securities	124,385	15,146	35,624	73,613	2
Equity securities	37,326	—	—	—	37,326
Other investments	31,250	28,067	701	587	1,895
Loans	23,879	2,029	3,909	17,920	21
Cash and cash equivalent	24,999	24,999	—	—	—
	241,839	70,241	40,234	92,120	39,244
At 31 December 2012 (Restated¹)					
Debt securities	128,160	16,953	36,009	75,195	3
Equity securities	33,065	—	—	—	33,065
Other investments ²	27,518	24,195	866	7	2,450
Loans	24,537	5,358	1,780	17,329	70
Cash and cash equivalent	23,102	23,102	—	—	—
	236,382	69,608	38,655	92,531	35,588

¹ Restated for the impact of IFRS 10. See note B2 for further details

² To reflect the contractual redemption terms of the instruments, collective investment schemes included in 'other investments' previously reported as having no fixed term and maturing over 5 years, amounting to £17 million and £12,278 million respectively, have been reclassified as repayable on demand or within 1 year

The assets above are analysed in accordance with the earliest possible redemption date of the instrument at the initiation of the Group. Where an instrument is transferable back to the issuer on demand, such as most unit trusts or similar types of investment vehicle, it is included in the 'On demand or within 1 year' column. Debt securities with no fixed contractual maturity date are generally callable at the option of the issuer at the date the coupon rate is reset under the contractual terms of the instrument. The terms for resetting the coupon are such that we expect the securities to be redeemed at this date, as it would be uneconomic for the issuer not to do so, and for liquidity management purposes we manage these securities on this basis. The first repricing and call date is normally ten years or more after the date of issuance. Most of the Group's investments in equity securities and fixed maturity securities are market traded and therefore, if required, can be liquidated for cash at short notice.

(e) Life insurance risk

Life insurance risk in the Group arises through its exposure to mortality and morbidity risks and exposure to worse than anticipated operating experience on factors such as persistency levels and management and administration expenses. The Group chooses to take measured amounts of life insurance risk provided that the relevant business has the appropriate core skills to assess and price the risk and adequate returns are available.

The underlying risk profile of our life insurance risks, primarily persistency, longevity, mortality and expense risk, has remained stable during 2013, although the current continued relatively low levels of interest rates have increased our sensitivity to longevity shocks compared to historical norms. Persistency risk remains significant and continues to have a volatile outlook with underlying performance linked to some degree to economic conditions. However, businesses across the Group have continued to make progress with a range of customer retention activities. The Group has continued to write considerable volumes of life protection business, and to utilise reinsurance to reduce exposure to potential losses. More generally, life insurance risks are believed to provide a significant diversification against other risks in the portfolio. Life insurance risks are modelled within the internal economic capital model and subject to sensitivity and stress and scenario testing. The assumption and management of life insurance risks is governed by the group-wide business standards covering underwriting, pricing, product design and management, in-force management, claims handling, and reinsurance. The individual life insurance risks are managed as follows:

- Mortality and morbidity risks are mitigated by use of reinsurance. The Group allows businesses to select reinsurers, from those approved by the Group, based on local factors, but retains oversight of the overall exposures and monitor that the aggregation of risk ceded is within credit risk appetite.
- Longevity risk and internal experience analysis are monitored against the latest external industry data and emerging trends. Whilst individual businesses are responsible for reserving and pricing for annuity business, the Group monitors the exposure to this risk and any associated capital implications. The Group has used reinsurance solutions to reduce the risks from longevity and continually monitors and evaluates emerging market solutions to mitigate this risk further.
- Persistency risk is managed at a business unit level through frequent monitoring of company experience, and benchmarked against local market information. Generally, persistency risk arises from customers lapsing their policies earlier than has been assumed. Where possible the financial impact of lapses is reduced through appropriate product design. Businesses also implement specific initiatives to improve retention of policies which may otherwise lapse. The Group has developed guidelines on persistency management.
- Expense risk is primarily managed by the business units through the assessment of business unit profitability and frequent monitoring of expense levels.

Embedded derivatives

The Group has exposure to a variety of embedded derivatives in its long-term savings business due to product features offering varying degrees of guaranteed benefits at maturity or on early surrender, along with options to convert their benefits into different products on pre-agreed terms. The extent of the impact of these embedded derivatives differs considerably between business units and exposes Aviva to changes in policyholder behaviour in the exercise of options as well as market risk.

B19 – Risk management continued

Examples of each type of embedded derivative affecting the Group are:

- Options: call, put, surrender and maturity options, guaranteed annuity options, options to cease premium payment, options for withdrawals free of market value adjustment, annuity options, and guaranteed insurability options.
- Guarantees: embedded floor (guaranteed return), maturity guarantee, guaranteed death benefit, and guaranteed minimum rate of annuity payment.
- Other: indexed interest or principal payments, maturity value, loyalty bonus.

The impact of these is reflected in the economic capital model and MCEV reporting and managed as part of the asset liability framework.

(f) General insurance risk

Types of risk

General insurance risk in the Group arises from:

- Fluctuations in the timing, frequency and severity of claims and claim settlements relative to expectations;
- Unexpected claims arising from a single source or cause;
- Inaccurate pricing of risks or inappropriate underwriting of risks when underwritten; and
- Inadequate reinsurance protection or other risk transfer techniques.

Aviva has a preference for general insurance risk in measured amounts for explicit reward, in line with our core skills in underwriting and pricing. The majority of the general insurance business underwritten by the Group continues to be short tail in nature such as motor, household and commercial property insurances. The Group's underwriting strategy and appetite is communicated via specific policy statements, related business standards and guidelines. General insurance risk is managed primarily at business unit level with oversight at the Group level. Claims reserving is undertaken by local actuaries in the various general insurance businesses and is also subject to periodic external reviews. Reserving processes are further detailed in note B10 'insurance liabilities'.

The vast majority of the Group's general insurance business is managed and priced in the same country as the domicile of the customer.

Management of general insurance risks

Significant insurance risks will be reported under the risk management framework. Additionally, the economic capital model is used to assess the risks that each general insurance business unit, and the Group as a whole, is exposed to, quantifying their impact and calculating appropriate capital requirements.

Business units have developed mechanisms that identify, quantify and manage accumulated exposures to contain them within the limits of the appetite of the Group. The business units are assisted by a Business Capability team who provide technical input for major decisions which fall outside individual delegated limits or escalations outside group risk preferences, group risk accumulation, concentration and profitability limits.

Reinsurance strategy

Significant reinsurance purchases are reviewed annually at both business unit and Group level to verify that the levels of protection being bought reflect any developments in exposure and the risk appetite of the Group. The basis of these purchases is underpinned by analysis of economic capital, earnings and capital volatility, cash flow and liquidity and the Group's franchise value.

Detailed actuarial analysis is used to calculate the Group's extreme risk profile and then design cost and capital efficient reinsurance programmes to mitigate these risks to within agreed appetites. For businesses writing general insurance we analyse the natural catastrophe exposure using external probabilistic catastrophe models widely used by the rest of the (re)insurance industry.

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. The total Group potential loss from its most concentrated catastrophe exposure zone (Northern Europe) is approximately £180 million, for a one in ten year annual loss scenario, compared to approximately £280 million when measured on a one in a hundred year annual loss scenario.

(g) Asset management risk

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. The risk profile is regularly monitored. Investment performance has remained strong over 2013 despite some positions being impacted by the volatility of global markets.

A client relationship team is in place to manage client retention risk, while all new asset management products undergo a review and approval process at each stage of the product development process, including approvals from legal, compliance and risk functions. Investment performance against client objectives relative to agreed benchmarks is monitored as part of our investment performance and risk management process, and subject to further independent oversight and challenge by a specialist risk team, reporting directly to the Aviva Investors' CRO.

B19 – Risk management continued

(h) Operational risk

Operational risk is the risk of direct or indirect loss, arising from inadequate or failed internal processes, people and systems, or external events including changes in the regulatory environment. We have limited appetite for operational risk and aim to reduce these risks as far as is commercially sensible.

Our business units are primarily responsible for identifying and managing operational risks within their businesses, within the group-wide operational risk framework including the risk and control self-assessment process. Businesses must be satisfied that all material risks falling outside our risk tolerances are being mitigated, monitored and reported to an appropriate level. Any risks with a high potential impact are monitored centrally on a regular basis. Businesses use key indicator data to help monitor the status of the risk and control environment. They also identify and capture loss events, taking appropriate action to address actual control breakdowns and promote internal learning.

(i) Brand and reputation risk

We are exposed to the risk that litigation, employee misconduct, operational failures, the outcome of regulatory investigations, media speculation and negative publicity, disclosure of confidential client information, inadequate services, whether or not founded, could impact our brands or reputation. 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 customers' expectations for the product change. We seek to reduce this risk to as low a level as commercially sensible.

Our regulators regularly consider whether we are meeting the requirement to treat our customers fairly and we make use of various metrics to assess our own performance, including customer advocacy, retention and complaints. Failure to meet these requirements could also impact our brands or reputation.

If we do not manage the perception of our brands and reputation successfully, it could cause existing customers or agents to withdraw from our business and potential customers or agents to choose not to do business with us.

(j) Risk and capital management

(i) Sensitivity test analysis

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

For long-term business in particular, sensitivities of market consistent 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.

(ii) 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 MCEV methodology.

(iii) 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.

(iv) Sensitivity test results

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

B19 – Risk management continued

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%.
Annuitant 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%.

Long-term business

Sensitivities as at 31 December 2013

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
2013 Impact on profit before tax (£m)								
Insurance participating	(45)	—	(60)	(10)	(20)	(30)	(5)	(40)
Insurance non-participating	(145)	140	(415)	(5)	10	(80)	(60)	(450)
Investment participating	(10)	5	(5)	5	(5)	(10)	—	—
Investment non-participating	(20)	20	(5)	5	(5)	(15)	—	—
Assets backing life shareholders' funds	(35)	55	(25)	40	(45)	—	—	—
Total	(255)	220	(510)	35	(65)	(135)	(65)	(490)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
2013 Impact on shareholders' equity before tax (£m)								
Insurance participating	(45)	—	(60)	(10)	(20)	(30)	(5)	(40)
Insurance non-participating	(145)	140	(415)	(5)	10	(80)	(60)	(450)
Investment participating	(10)	5	(5)	5	(5)	(10)	—	—
Investment non-participating	(20)	20	(5)	5	(5)	(15)	—	—
Assets backing life shareholders' funds	(75)	100	(35)	45	(45)	—	—	—
Total	(295)	265	(520)	40	(65)	(135)	(65)	(490)

Sensitivities as at 31 December 2012

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
2012 Impact on profit before tax (£m)								
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)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
2012 Impact on shareholders' equity before tax (£m)								
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)

B19 – Risk management continued

Changes in sensitivities between 2013 and 2012 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 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.

General insurance and health business sensitivities as at 31 December 2013

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%	Expenses +10%	Gross loss ratios +5%
2013 Impact on profit before tax (£m)							
Gross of reinsurance	(245)	235	(125)	50	(50)	(110)	(300)
Net of reinsurance	(295)	295	(125)	50	(50)	(110)	(285)

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%	Expenses +10%	Gross loss ratios +5%
2013 Impact on shareholders' equity before tax (£m)							
Gross of reinsurance	(245)	235	(125)	50	(50)	(25)	(300)
Net of reinsurance	(295)	295	(125)	50	(50)	(25)	(285)

Sensitivities as at 31 December 2012

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%	Expenses +10%	Gross loss ratios +5%
2012 Impact on profit before tax (£m)							
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)

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%	Expenses +10%	Gross loss ratios +5%
2012 Impact on shareholders' equity before tax (£m)							
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.

Fund management and non-insurance business sensitivities as at 31 December 2013

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%
2013 Impact on profit before tax (£m)					
Total	—	—	20	(5)	15

	Interest rates +1%	Interest rates –1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property –10%
2013 Impact on shareholders' equity before tax (£m)					
Total	—	—	20	(5)	15

B19 – Risk management continued**Sensitivities as at 31 December 2012**

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

Limitations of sensitivity analysis

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

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

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

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

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

B20 – Direct capital instruments and fixed rate tier 1 notes

Notional amount	2013 £m	2012 £m
Issued November 2004		
5.9021% £500 million direct capital instrument	500	500
4.7291% €700 million direct capital instrument	490	490
	990	990
Issued May 2012		
8.25% US \$650 million fixed rate tier 1 notes	392	392
	1,382	1,382

The euro and sterling direct capital instruments (the DCIs) were issued on 25 November 2004 and qualify as Innovative Tier 1 capital, as defined by the PRA in GENPRU Annex 1 'Capital Resources'. They have no fixed redemption date but the Company may, at its sole option, redeem all (but not part) of the euro and sterling DCIs at their principal amounts on 28 November 2014 and 27 July 2020 respectively, at which dates the interest rates change to variable rates, or on any respective coupon payment date thereafter. In the case of the sterling DCI this variable rate will be the six month sterling deposit rate plus margin while the euro DCI variable rate will be the three month euro deposit rate plus margin.

The fixed rate tier 1 notes (the FxdRNs) were issued on 3 May 2012 and also qualify as Innovative Tier 1 capital. The FxdRNs are perpetual but are subject to a mandatory exchange into non-cumulative preference shares in the Company after 99 years. The Company may, at its sole option, redeem all (but not part) of the FxdRNs at their principal amounts on 3 November 2017, or on any respective coupon payment date thereafter.

On the occurrence of a Capital Disqualification Event as defined in the terms and conditions of the issue for both the DCIs and FxdRNs, the Company may at its sole option substitute at any time not less than all of the DCIs or FxdRNs for, or vary the terms of the DCIs so that they become, Qualifying Tier 1 Securities or Qualifying Upper Tier 2 Securities.

In addition, on the occurrence of a Substitution Event as defined in the terms and conditions of the issue for the DCIs, the Company may at its sole option substitute not less than all of the DCIs for fully paid non-cumulative preference shares in the Company. These preference shares can only be redeemed on 28 November 2014 in the case of the euro DCIs and on 27 July 2020 in the case of the sterling DCIs, or in each case on any dividend payment date thereafter. For the FxdRNs, having given the required notice, the Company has the right to substitute not less than all of the notes for fully paid non-cumulative preference shares at any time. These preference shares can only be redeemed on 3 November 2017, or on any dividend payment date thereafter. The Company has the right to choose whether or not to pay any dividend on the new shares, and any such dividend payment will be non-cumulative.

B20 – Direct capital instruments and fixed rate tier 1 notes continued

The Company has the option to defer coupon payments on the DCIs or FxdRNs on any relevant payment date.

In relation to the DCIs, deferred coupons shall be satisfied only in the following circumstances, all of which occur at the sole option of the Company:

- Redemption; or
- Substitution by, or variation so they become, alternative Qualifying Tier 1 Securities or Qualifying Upper Tier 2 Securities; or
- Substitution by preference shares.

In relation to the FxdRNs, deferred coupons may be satisfied at any time, at the sole option of the Company. The Company is required to satisfy deferred coupons on the FxdRNs only in the following circumstances:

- Redemption; or
- Substitution by preference shares.

No interest will accrue on any deferred coupon. Deferred coupons will be satisfied by the issue and sale of ordinary shares in the Company at their prevailing market value, to a sum as near as practicable to (and at least equal to) the relevant deferred coupons. In the event of any coupon deferral, the Company will not declare or pay any dividend on its ordinary or preference share capital.

These instruments have been treated as equity.

B21 – Subsequent events

On 28 February 2014, the Company notified the respective holders of £200 million subordinated notes due 2019 and €50 million subordinated notes due 2019 that it would redeem each of the notes on their respective first call dates in April 2014.

Capital & assets

In this section	Page
Capital and liquidity	
C1 Capital performance	94
C2 Regulatory capital	97
C3 IFRS sensitivity analysis	99

Capital and liquidity

C1 – Capital performance

(a) Capital generation and utilisation

	2013 £m	Restated 2012 £m
Group operating capital generated after investment in new business	1,967	1,982
Interest, corporate and other costs	(621)	(677)
External dividends and appropriations, net of shares issued in lieu of dividends	(537)	(723)
Net operating capital generation after financing	809	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:

	2013			2012		
	Internal rate of return ¹ %	New business impact on free surplus ² £m	Payback period years ³	Internal rate of return %	New business impact on free surplus £m	Payback period years
United Kingdom	21%	(47)	6	18%	6	6
Ireland	5%	30	13	2%	31	25
United Kingdom & Ireland	18%	(17)	7	16%	37	8
France	11%	148	9	11%	125	8
Poland	22%	25	4	20%	25	4
Italy	14%	46	6	12%	41	6
Spain	17%	33	4	21%	35	4
Other Europe	32%	20	3	22%	42	3
Europe	15%	272	7	15%	268	6
Asia	16%	66	10	11%	84	11
Total – excluding United States	15.9%	321	7	14.9%	389	8
Total – United States	—	—	—	17%	319	4
Total	15.9%	321	7	15.5%	708	7

1 Gross of non-controlling interests

2 Net of non-controlling interests

3 Gross of non-controlling interests

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		
2013				
United Kingdom & Ireland life	952	904	5,646	16.0%
United Kingdom & Ireland general insurance and health ²	410	319	4,008	8.0%
Europe	963	636	5,860	10.9%
Canada	246	180	1,039	17.4%
Asia	97	84	825	10.1%
Fund management	93	72	225	32.1%
Corporate and Other Business ³	(384)	(428)	(1,471)	n/a
Return on total capital employed (excluding United States)	2,377	1,767	16,132	11.0%
United States	290	207	367	56.5%
Return on total capital employed (including United States)	2,667	1,974	16,499	12.0%
Subordinated debt	(305)	(234)	(4,337)	5.4%
External debt	(23)	(18)	(802)	2.2%
Return on total equity	2,339	1,722	11,360	15.2%
Less: Non-controlling interests		(174)	(1,574)	11.1%
Direct capital instruments and fixed rate tier 1 notes		(70)	(1,382)	5.1%
Preference capital		(17)	(200)	8.5%
Return on equity shareholders' funds		1,461	8,204	17.8%

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

² The operating return for United Kingdom & Ireland general insurance and health is presented net of £79 million of investment return, which is allocated to Corporate and Other Business. The £79 million represents the return on capital supporting Pillar II ICA risks deemed not to be supporting the ongoing general insurance operation.

³ The 'Corporate and Other Business' loss before tax of £384 million comprises corporate costs of £150 million, interest on internal lending arrangements of £231 million, other business operating loss (net of investment return) of £60 million, partly offset by finance income on the main UK pension scheme of £57 million.

	Operating return ¹		Opening shareholders' funds including non-controlling interests £m	Restated return on equity %
	Restated before tax £m	Restated after tax £m		
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 integration and restructuring costs, impairment of goodwill, amortisation of intangibles, exceptional items and investment variances.

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.

	2013 Capital employed			2012 Capital employed		
	IFRS basis £m	Internally generated AVIF £m	MCEV ⁶ basis £m	IFRS basis £m	Internally generated AVIF £m	MCEV ⁶ basis £m
Life business						
United Kingdom	5,237	2,140	7,377	4,911	1,595	6,506
Ireland	595	71	666	735	361	1,096
United Kingdom & Ireland	5,832	2,211	8,043	5,646	1,956	7,602
France	2,366	1,587	3,953	2,119	1,329	3,448
Poland	380	1,075	1,455	336	1,442	1,778
Italy	1,108	428	1,536	1,276	(317)	959
Spain	769	218	987	1,113	340	1,453
Other Europe	93	84	177	155	79	234
Europe	4,716	3,392	8,108	4,999	2,873	7,872
Asia	676	226	902	784	28	812
	11,224	5,829	17,053	11,429	4,857	16,286
General insurance & health						
United Kingdom	3,725	—	3,725	3,653	—	3,653
Ireland	421	—	421	355	—	355
United Kingdom & Ireland	4,146	—	4,146	4,008	—	4,008
France	570	—	570	562	—	562
Italy	269	—	269	242	—	242
Other Europe	43	—	43	57	—	57
Europe	882	—	882	861	—	861
Canada	925	—	925	1,039	—	1,039
Asia	33	—	33	41	—	41
	5,986	—	5,986	5,949	—	5,949
Fund Management	237	—	237	225	—	225
Corporate & Other Business¹	(1,305)	11	(1,294)	(1,471)	13	(1,458)
Total capital employed (excluding United States)	16,142	5,840	21,982	16,132	4,870	21,002
United States	—	—	—	367	—	367
Total capital employed (including United States)	16,142	5,840	21,982	16,499	4,870	21,369
Financed by						
Equity shareholders' funds	7,964	5,145	13,109	8,204	4,230	12,434
Non-controlling interests	1,471	695	2,166	1,574	640	2,214
Direct capital instruments & fixed rate tier 1 notes	1,382	—	1,382	1,382	—	1,382
Preference shares	200	—	200	200	—	200
Subordinated debt	4,370	—	4,370	4,337	—	4,337
External debt	755	—	755	802	—	802
Total capital employed	16,142	5,840	21,982	16,499	4,870	21,369
Less: Goodwill & other intangibles (net of tax & non-controlling interests) ²	(2,204)		(2,088)	(2,523)		(2,429)
Total tangible capital employed	13,938		19,894	13,976		18,940
Total debt³	6,957		6,957	6,971		6,971
Tangible debt leverage	50%		35%	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 include the formal loan arrangement between Aviva Group Holdings Limited and Aviva Insurance Limited (AIL). Internal capital management mechanisms in place allocated a majority of the total capital of AIL to the UK general insurance operations with the remaining capital deemed to be supporting residual (non-operational) Pillar II ICA risks.

— 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 £1,480 million (FY12: £1,703 million) of goodwill in subsidiaries, £1,068 million (FY12: £1,090 million) of intangibles in subsidiaries and £60 million (FY12: £132 million) of goodwill and intangibles in joint ventures, net of deferred tax liabilities of £(189) million (FY12: £(188) million) and the non-controlling interest share of intangibles of £(215) million (FY12: £(214) million). Under MCEV goodwill and intangibles have been further impaired by £116 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 GA plc preference share capital £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 FY13 we had £16.1 billion (FY12: £16.5 billion) of total capital employed in our trading operations measured on an IFRS basis and £22 billion (FY12: £21.4 billion) of total capital employed on an MCEV basis.

In July 2013 we issued €650 million of Lower Tier 2 subordinated debt callable in 2023. This was used to repay a €650 million Lower Tier 2 subordinated debt instrument at its first call date, in October 2013. On a net basis, these transactions did not impact on Group IGD solvency and Economic Capital measures. Financial leverage, the ratio of external senior and subordinated debt to tangible capital employed, is 50% (FY12: 50%), and financial leverage under MCEV is 35% (FY12: 37%).

At FY13 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 £7,573 million (FY12: £7,260 million), with a weighted average cost, post tax, of 3.8% (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 FY13 was 8.3% (FY12: 7.5%) based on a risk free rate of 3% (FY12: 1.9%), an equity risk premium of 4.0% (FY12: 4.0%) and a market beta of 1.3 (FY12: 1.4).

C1 – Capital performance continued

(e) Equity sensitivity analysis

The sensitivity of the group's total equity, for continuing operations, on an IFRS basis and MCEV basis at 31 December 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	IFRS basis	31 December 2013 £bn	Equities down 10% £bn	Interest rates up 1% £bn	0.5% increased credit spread £bn
11.5	Long-term savings	11.2	(0.1)	(0.4)	(0.2)
4.6	General insurance and other	4.9	(0.1)	(0.4)	0.5
(5.1)	Borrowings	(5.1)	—	—	—
11.0	Total equity	11.0	(0.2)	(0.8)	0.3

Equities down 10%						
31 December 2012 £bn	MCEV basis	31 December 2013 £bn	Direct £bn	Indirect £bn	Interest rates up 1% £bn	0.5% increased credit spread £bn
16.3	Long-term savings	17.1	(0.1)	(0.4)	(0.4)	(0.9)
4.6	General insurance and other	4.9	(0.1)	—	(0.4)	0.5
(5.1)	Borrowings	(5.1)	—	—	—	—
15.8	Total equity	16.9	(0.2)	(0.4)	(0.8)	(0.4)

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 businesses in 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 £0.1 billion as at 31 December 2013 (FY12: £0.4 billion) due to the transfer of surpluses to the shareholder fund at the beginning of the year.

C2 – Regulatory capital continued**(a) Regulatory capital – Group: European Insurance Groups Directive (IGD)**

	UK life funds £bn	Other business £bn	31 December 2013 £bn	31 December 2012 £bn
Insurance Groups Directive (IGD) capital resources	5.8	8.6	14.4	14.4
Less: capital resources requirement	(5.8)	(5.0)	(10.8)	(10.6)
Insurance Group Directive (IGD) excess solvency	—	3.6	3.6	3.8
Cover over EU minimum (calculated excluding UK life funds)			1.7 times	1.7 times

The EU Insurance Groups Directive (IGD) regulatory capital solvency surplus has decreased by £0.2 billion since FY12 to £3.6 billion. 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	1.2
Dividends and appropriations	(0.5)
Market movements including foreign exchange ¹	(0.4)
Pension scheme funding	(0.1)
Disposals	0.2
Poland pension legislative changes	(0.3)
Increase in capital resources requirement	(0.1)
Other regulatory adjustments	(0.2)
Estimated IGD solvency surplus at 31 December 2013	3.6

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

(b) Reconciliation of Group IGD capital resources to IFRS capital

The reconciliation below provides analysis of differences between our capital resources and the amounts included in the capital statement made in accordance with FRS 27 and disclosed within our consolidated accounts. The Group Capital Adequacy report is prepared in accordance with the PRA valuation rules and brings in capital in respect of the UK Life valued in accordance with PRA regulatory rules excluding surpluses in with-profit funds. The FRS 27 disclosure brings in the realistic value of UK Life capital resources. As the two bases differ greatly, the reconciliation below is presented by removing the restricted regulatory assets and then replacing them with the unrestricted realistic assets.

	2013 £bn
Total capital and reserves (IFRS basis)	11.0
Plus: Other qualifying capital	4.4
Plus: UK unallocated divisible surplus	1.7
Less: Goodwill, acquired AVIF and intangible assets ¹	(2.6)
Less: Adjustments onto a regulatory basis	(0.1)
Group Capital Resources on regulatory basis	14.4
The Group Capital Resources can be analysed as follows:	
Core Tier 1 Capital	9.9
Innovative Tier 1 Capital	1.4
Total Tier 1 Capital	11.3
Upper Tier 2 Capital	1.7
Lower Tier 2 Capital	3.2
Group Capital Resources Deductions	(1.8)
Group Capital Resources on regulatory basis (Tier 1 & Tier 2 Capital)	14.4
Less: UK life restricted regulatory assets	(6.8)
Add: UK life unrestricted realistic assets	6.0
Add: Overseas UDS ² and Shareholders' share of accrued bonus	5.0
Total FRS 27 capital	18.6

¹ Goodwill and other intangibles includes goodwill of £60million in joint ventures and associates and amounts classified as held for sale.

² Unallocated divisible surplus for overseas life operations is included gross of minority interest and amounts disclosed include balances classified as held for sale.

C2 – Regulatory capital continued

(c) 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 31 December 2013 and 31 December 2012.

	31 December 2013					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	Estimated excess available capital £bn
NWPSF	15.6	(15.6)	—	1.1	(0.2)	0.9
OWPSF	2.8	(2.4)	0.4	—	(0.1)	0.2
WPSF ⁴	16.9	(15.4)	1.5	—	(0.3)	1.3
Aggregate	35.3	(33.4)	1.9	1.1	(0.6)	2.4

¹ These realistic liabilities include the shareholders' share of accrued bonuses of £0.1 billion (FY12: £0.3 billion). Realistic liabilities adjusted to eliminate the shareholders' share of accrued bonuses are £33.4 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 £1.4 billion, £0.2 billion and £2.5 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 (RIEESA) of £1.1 billion at 31 December 2013 (FY12: £0.7 billion).

⁴ The WPSF fund includes the Provident Mutual (PM) fund which has realistic assets and realistic liabilities of £1.5 billion and therefore does not contribute to the realistic inherited estate.

(d) Investment mix

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

	31 December 2013 %	31 December 2012 %
Equity	29%	23%
Property	12%	16%
Fixed interest	49%	51%
Other	10%	10%

The equity backing ratios, including property, supporting with-profit asset shares are 70% in NWPSF and OWPSF, and 73% 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 F18) 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.

C3 – IFRS Sensitivity analysis continued

(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%.
Annuitant 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%.

(d) Long-term businesses

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2013 Impact on profit before tax £m								
Insurance participating	(45)	—	(60)	(10)	(20)	(30)	(5)	(40)
Insurance non-participating	(145)	140	(415)	(5)	10	(80)	(60)	(450)
Investment participating	(10)	5	(5)	5	(5)	(10)	—	—
Investment non-participating	(20)	20	(5)	5	(5)	(15)	—	—
Assets backing life shareholders' funds	(35)	55	(25)	40	(45)	—	—	—
Total	(255)	220	(510)	35	(65)	(135)	(65)	(490)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2013 Impact on shareholders' equity before tax £m								
Insurance participating	(45)	—	(60)	(10)	(20)	(30)	(5)	(40)
Insurance non-participating	(145)	140	(415)	(5)	10	(80)	(60)	(450)
Investment participating	(10)	5	(5)	5	(5)	(10)	—	—
Investment non-participating	(20)	20	(5)	5	(5)	(15)	—	—
Assets backing life shareholders' funds	(75)	100	(35)	45	(45)	—	—	—
Total	(295)	265	(520)	40	(65)	(135)	(65)	(490)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2012 Impact on profit before tax £m								
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)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2012 Impact on shareholders' equity before tax £m								
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 2013 and 2012 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 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.

C3 – IFRS Sensitivity analysis continued

(e) General insurance and health businesses

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
31 December 2013 Impact on profit before tax £m							
Gross of reinsurance	(245)	235	(125)	50	(50)	(110)	(300)
Net of reinsurance	(295)	295	(125)	50	(50)	(110)	(285)
31 December 2013 Impact on shareholders' equity before tax £m							
Gross of reinsurance	(245)	235	(125)	50	(50)	(25)	(300)
Net of reinsurance	(295)	295	(125)	50	(50)	(25)	(285)
31 December 2012 Impact on profit before tax £m							
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							
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

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
31 December 2013 Impact on profit before tax £m					
Total	—	—	20	(5)	15
31 December 2013 Impact on shareholders' equity before tax £m					
Total	—	—	20	(5)	15
31 December 2012 Impact on profit before tax £m					
Total excluding Delta Lloyd	(5)	—	30	(90)	10
31 December 2012 Impact on shareholders' equity before tax £m					
Total excluding Delta Lloyd	(5)	—	30	(90)	10

¹ For 2012, 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 2012 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

	Page
Analysis of assets	
D1 Total assets	104
D2 Total assets – Valuation bases/fair value hierarchy	104
D3 Analysis of asset quality	107
D4 Pension fund assets	125
D5 Available funds	126
D6 Guarantees	126

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.

	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
2013						
Goodwill and acquired value of in-force business and intangible assets	—	—	2,548	2,548	(4)	2,544
Interests in joint ventures and associates	219	900	377	1,496	(29)	1,467
Property and equipment	—	143	170	313	—	313
Investment property	3,564	5,648	239	9,451	—	9,451
Loans	471	5,535	17,873	23,879	—	23,879
Financial investments						
Debt securities	12,835	80,610	33,360	126,805	(2,420)	124,385
Equity securities	25,836	10,544	1,000	37,380	(54)	37,326
Other investments	26,563	3,880	1,008	31,451	(201)	31,250
Reinsurance assets	2,043	628	4,586	7,257	(37)	7,220
Deferred tax assets	—	—	252	252	(8)	244
Current tax assets	—	—	86	86	(10)	76
Receivables & other financial assets	258	2,033	4,846	7,137	(77)	7,060
Deferred acquisition costs and other assets	—	500	2,558	3,058	(7)	3,051
Prepayments and accrued income	99	1,197	1,302	2,598	(100)	2,498
Cash and cash equivalents	4,725	12,321	8,304	25,350	(351)	24,999
Additional impairment to write down the disposal group to fair value less costs to sell	—	—	(185)	(185)	185	—
Assets of operations classified as held for sale	—	—	—	—	3,113	3,113
Total	76,613	123,939	78,324	278,876	—	278,876
Total %	27.5%	44.4%	28.1%	100.0%	—	100.0%
FY12 Restated	73,730	125,328	115,409	314,467	—	314,467
FY12 Total % Restated	23.4%	39.9%	36.7%	100.0%	—	100.0%

As at 31 December 2013, 28.1% of Aviva's total asset base was shareholder assets, 44.4% participating assets where Aviva shareholders have partial exposure, and 27.5% policyholder assets where Aviva shareholders have no exposure. Of the total assets (excluding assets held for sale), investment property, loans and financial investments comprise £226.3 billion, compared to £223.2 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 – 2013				
Goodwill and acquired value of in-force business and intangible assets	—	2,548	—	2,548
Interests in joint ventures and associates	—	—	1,496	1,496
Property and equipment	257	56	—	313
Investment property	9,451	—	—	9,451
Loans	18,477	5,402	—	23,879
Financial investments				
Debt securities	126,805	—	—	126,805
Equity securities	37,380	—	—	37,380
Other investments	31,451	—	—	31,451
Reinsurance assets	—	7,257	—	7,257
Deferred tax assets	—	—	252	252
Current tax assets	—	—	86	86
Receivables and other financial assets	—	7,137	—	7,137
Deferred acquisition costs and other assets	—	3,058	—	3,058
Prepayments and accrued income	—	2,598	—	2,598
Additional impairment to write down the disposal group to fair value less costs to sell	—	(185)	—	(185)
Cash and cash equivalents	25,350	—	—	25,350
Total	249,171	27,871	1,834	278,876
Total %	89.3%	10.0%	0.7%	100.0%
Assets of operations classified as held for sale	3,026	40	47	3,113
Total (excluding assets held for sale)	246,145	27,831	1,787	275,763
Total % (excluding assets held for sale)	89.3%	10.1%	0.6%	100.0%
FY12 Total Restated	278,188	34,210	2,069	314,467
FY12 Total % Restated	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.

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 – Policyholder assets 2013				
Goodwill and acquired value of in-force business and intangible assets	—	—	—	—
Interests in joint ventures and associates	—	—	219	219
Property and equipment	—	—	—	—
Investment property	3,564	—	—	3,564
Loans	—	471	—	471
Financial investments				
Debt securities	12,835	—	—	12,835
Equity securities	25,836	—	—	25,836
Other investments	26,563	—	—	26,563
Reinsurance assets	—	2,043	—	2,043
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	258	—	258
Deferred acquisition costs and other assets	—	—	—	—
Prepayments and accrued income	—	99	—	99
Additional impairment to write down the disposal group to fair value less costs to sell	—	—	—	—
Cash and cash equivalents	4,725	—	—	4,725
Total	73,523	2,871	219	76,613
Total %	96.0%	3.7%	0.3%	100.0%
Assets of operations classified as held for sale	44	—	—	44
Total (excluding assets held for sale)	73,479	2,871	219	76,569
Total % (excluding assets held for sale)	96.0%	3.7%	0.3%	100.0%
FY12 Total Restated	70,958	2,701	71	73,730
FY12 Total % Restated	96.2%	3.7%	0.1%	100.0%

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

	Fair value £m	Amortised cost £m	Equity accounted/ tax assets ¹ £m	Total £m
Total assets – Participating fund assets 2013				
Goodwill and acquired value of in-force business and intangible assets	—	—	—	—
Interests in joint ventures and associates	—	—	900	900
Property and equipment	133	10	—	143
Investment property	5,648	—	—	5,648
Loans	989	4,546	—	5,535
Financial investments				
Debt securities	80,610	—	—	80,610
Equity securities	10,544	—	—	10,544
Other investments	3,880	—	—	3,880
Reinsurance assets	—	628	—	628
Deferred tax assets	—	—	—	—
Current tax assets	—	—	—	—
Receivables and other financial assets	—	2,033	—	2,033
Deferred acquisition costs and other assets	—	500	—	500
Prepayments and accrued income	—	1,197	—	1,197
Additional impairment to write down the disposal group to fair value less costs to sell	—	—	—	—
Cash and cash equivalents	12,321	—	—	12,321
Total	114,125	8,914	900	123,939
Total %	92.1%	7.2%	0.7%	100.0%
Assets of operations classified as held for sale	2,585	134	—	2,719
Total (excluding assets held for sale)	111,540	8,780	900	121,220
Total % (excluding assets held for sale)	92.0%	7.3%	0.7%	100.0%
FY12 Total Restated	114,494	9,603	1,231	125,328
FY12 Total % Restated	91.3%	7.7%	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.

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 – Shareholders assets 2013				
Goodwill and acquired value of in-force business and intangible assets	—	2,548	—	2,548
Interests in joint ventures and associates	—	—	377	377
Property and equipment	124	46	—	170
Investment property	239	—	—	239
Loans	17,488	385	—	17,873
Financial investments				
Debt securities	33,360	—	—	33,360
Equity securities	1,000	—	—	1,000
Other investments	1,008	—	—	1,008
Reinsurance assets	—	4,586	—	4,586
Deferred tax assets	—	—	252	252
Current tax assets	—	—	86	86
Receivables and other financial assets	—	4,846	—	4,846
Deferred acquisition costs and other assets	—	2,558	—	2,558
Prepayments and accrued income	—	1,302	—	1,302
Additional impairment to write down the disposal group to fair value less costs to sell	—	(185)	—	(185)
Cash and cash equivalents	8,304	—	—	8,304
Total	61,523	16,086	715	78,324
Total %	78.6%	20.5%	0.9%	100.0%
Assets of operations classified as held for sale ²	397	(94)	47	350
Total (excluding assets held for sale)	61,126	16,180	668	77,974
Total % (excluding assets held for sale)	78.4%	20.7%	0.9%	100.0%
FY12 Total Restated	92,736	21,906	767	115,409
FY12 Total % Restated	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.

² The remeasurement loss upon the classification of assets as held for sale included an additional impairment to write down the disposal group to fair value less costs to sell. IFRS does not allow this to be taken against assets at fair value, therefore for the purpose of this disclosure the impairment has been allocated to the amortised cost assets, resulting in a negative asset value.

Fair value hierarchy

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

- Inputs to Level 1 fair values are quoted prices (unadjusted) in active markets for identical assets.
- Inputs to Level 2 fair values are inputs other than quoted prices included within Level 1 that are observable for the asset, either directly or indirectly. If the asset has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset.
- Inputs to level 3 values are unobservable inputs for the asset. Unobservable inputs may have been used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset at the measurement date (or market information for the inputs to any valuation models). As such unobservable inputs reflect the assumptions the business unit considers that market participants would use in pricing the asset. Examples are certain private equity investments and private placements.

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

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

	Fair value hierarchy					Less: Assets of operations classified as held for sale	Balance sheet total
	Level 1 £m	Level 2 £m	Level 3 £m	Sub-total fair value £m	Amortised cost £m	£m	£m
Investment property and financial assets – total 2013							
Investment property	—	—	9,451	9,451	—	—	9,451
Loans	—	3,115	15,362	18,477	5,402	—	23,879
Debt securities	77,042	40,884	8,879	126,805	—	(2,420)	124,385
Equity securities	36,835	102	443	37,380	—	(54)	37,326
Other investments (including derivatives)	24,132	4,283	3,036	31,451	—	(201)	31,250
Assets of operations classified as held for sale	—	—	—	—	—	2,675	2,675
Total	138,009	48,384	37,171	223,564	5,402	—	228,966
Total %	60.3%	21.1%	16.2%	97.6%	2.4%		100.0%
Assets of operations classified as held for sale	2,245	282	148	2,675	—	—	2,675
Total (excluding assets held for sale)	135,764	48,102	37,023	220,889	5,402	—	226,291
Total % (excluding assets held for sale)	60.0%	21.2%	16.4%	97.6%	2.4%		100.0%
FY12 Total Restated	162,250	78,396	13,439	254,085	8,961	—	263,046
FY12 Total % Restated	61.7%	29.8%	5.1%	96.6%	3.4%		100.0%

At 31 December 2013, the proportion of total financial assets and investment property classified as Level 1 in the fair value hierarchy was 60.3% (FY12: 61.7%). The proportion of Level 2 financial investments, loans and investment properties reduced to 21.1% (FY12: 29.8%) while those classified as Level 3 increased to 16.2% (FY12: 5.1%). Movements in the proportion of assets held in each fair value hierarchy level have been driven by the following factors:

- The sale of the Group's US business in October 2013 where the majority of our Level 2 financial investments were previously held.
- The reclassification of £29.4 billion of mainly debt securities from Level 1 to Level 2, as a result of the enhanced understanding of pricing vendor methodologies for the fair value classification of certain debt securities.
- The reclassification of £14.6 billion of mortgage assets in the UK business held within Level 2 loans to Level 3 as a result of the reassessment of significant inputs used in the valuation, together with revisions to some of the models used.
- Investment property of £9.5 billion has been reclassified from Level 2 to Level 3, reflecting a reassessment of observable inputs and related market activity.

Excluding assets classified as held for sale, the proportion of Level 1 assets at 31 December 2013 is 60.0% with Level 2 assets at 21.2%.

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 the numbers below includes assets which are held for sale.

D3.1 – Investment property

	2013				Restated ¹ 2012			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Investment property – Total								
Lease to third parties under operating leases	—	—	9,447	9,447	—	9,946	—	9,946
Vacant investment property/held for capital appreciation	—	—	4	4	—	11	—	11
Total	—	—	9,451	9,451	—	9,957	—	9,957
Total %	—	—	100.0%	100.0%	—	100.0%	—	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	18	—	18
Total (excluding assets held for sale)	—	—	9,451	9,451	—	9,939	—	9,939
Total % (excluding assets held for sale)	—	—	100.0%	100.0%	—	100.0%	—	100.0%

	2013				Restated ¹ 2012			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Investment property – Policyholder assets								
Lease to third parties under operating leases	—	—	3,562	3,562	—	4,173	—	4,173
Vacant investment property/held for capital appreciation	—	—	2	2	—	—	—	—
Total	—	—	3,564	3,564	—	4,173	—	4,173
Total %	—	—	100.0%	100.0%	—	100.0%	—	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	12	—	12
Total (excluding assets held for sale)	—	—	3,564	3,564	—	4,161	—	4,161
Total % (excluding assets held for sale)	—	—	100.0%	100.0%	—	100.0%	—	100.0%

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 result for any year presented as a result of this restatement.

D3 – Analysis of asset quality continued

	2013				Restated 2012			
	Fair value hierarchy				Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Investment property – Participating fund assets								
Lease to third parties under operating leases	—	—	5,646	5,646	—	5,530	—	5,530
Vacant investment property/held for capital appreciation	—	—	2	2	—	1	—	1
Total	—	—	5,648	5,648	—	5,531	—	5,531
Total %	—	—	100.0%	100.0%	—	100.0%	—	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	—	—	—
Total (excluding assets held for sale)	—	—	5,648	5,648	—	5,531	—	5,531
Total % (excluding assets held for sale)	—	—	100.0%	100.0%	—	100.0%	—	100.0%

	2013								Restated 2012
	Fair value hierarchy				Fair value hierarchy				
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	
Investment property – Shareholder assets									
Lease to third parties under operating leases	—	—	239	239	—	243	—	243	
Vacant investment property/held for capital appreciation	—	—	—	—	—	10	—	10	
Total	—	—	239	239	—	253	—	253	
Total %	—	—	100.0%	100.0%	—	100.0%	—	100.0%	
Assets of operations classified as held for sale	—	—	—	—	—	6	—	6	
Total (excluding assets held for sale)	—	—	239	239	—	247	—	247	
Total % (excluding assets held for sale)	—	—	100.0%	100.0%	—	100.0%	—	100.0%	

97.5% (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 French commercial property.

Investment properties are stated at their market values as assessed by qualified external independent valuers or by local qualified staff of the Group, 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 further 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 where available. Upon reassessment of these inputs and related market activity, it was concluded that the significant inputs are non-market observable and these assets have been reclassified from Level 2 to Level 3 in 2013.

99.9% (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 inputs such as current property values and credit assumptions. Upon reassessment of these inputs and related market activity these assets have been reclassified from Level 2 to Level 3.

Loans – Total 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	24	836	—	29	—	889
Loans and advances to banks	4,844	—	—	—	—	4,844
Mortgage loans	17,910	1	—	—	—	17,911
Other loans	121	38	76	—	—	235
Total	22,899	875	76	29	—	23,879
Total %	95.9%	3.7%	0.3%	0.1%	0.0%	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	22,899	875	76	29	—	23,879
Total % (excluding assets held for sale)	95.9%	3.7%	0.3%	0.1%	0.0%	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 – Policyholders assets 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	—	—	—	7	—	7
Loans and advances to banks	464	—	—	—	—	464
Mortgage loans	—	—	—	—	—	—
Other loans	—	—	—	—	—	—
Total	464	—	—	7	—	471
Total %	98.5%	0.0%	0.0%	1.5%	0.0%	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	464	—	—	7	—	471
Total % (excluding assets held for sale)	98.5%	0.0%	0.0%	1.5%	0.0%	100.0%
FY12 Total	604	—	—	1	—	605
FY12 Total %	99.8%	0.0%	0.0%	0.2%	0.0%	100.0%

Loans – Participating fund assets 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	18	825	—	19	—	862
Loans and advances to banks	3,827	—	—	—	—	3,827
Mortgage loans	785	1	—	—	—	786
Other loans	42	18	—	—	—	60
Total	4,672	844	—	19	—	5,535
Total %	84.5%	15.2%	0.0%	0.3%	0.0%	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	4,672	844	—	19	—	5,535
Total % (excluding assets held for sale)	84.5%	15.2%	0.0%	0.3%	0.0%	100.0%
FY12 Total	4,398	848	—	—	316	5,562
FY12 Total %	79.1%	15.2%	0.0%	0.0%	5.7%	100.0%

D3 – Analysis of asset quality continued

D3.2 – Loans continued

Loans – Shareholder assets 2013	United Kingdom & Ireland £m	Europe £m	Canada £m	Asia £m	United States £m	Total £m
Policy loans	6	11	—	3	—	20
Loans and advances to banks	553	—	—	—	—	553
Mortgage loans	17,125	—	—	—	—	17,125
Other loans	79	20	76	—	—	175
Total	17,763	31	76	3	—	17,873
Total %	99.4%	0.2%	0.4%	0.0%	0.0%	100.0%
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	17,763	31	76	3	—	17,873
Total % (excluding assets held for sale)	99.4%	0.2%	0.4%	0.0%	0.0%	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 31 December 2013 stood at £23.9 billion (FY12: £27.9 billion), a decrease of £4.0 billion, with £3.4 billion of this reduction driven by the disposal of our US business in 2013.

The total shareholder exposure to loans decreased to £17.9 billion (FY12: £21.8 billion), principally as a result of our US business disposal in 2013 and represented 75% of the total loan portfolio, with the remaining 25% split between participating funds (£5.5 billion) and policyholder assets (£0.5 billion).

Of the Group's total loan portfolio (including Policyholder, Participating Fund and Shareholder assets), 75% (FY12: 79%) is invested in mortgage loans.

Mortgage loans – Shareholder assets

2013	United Kingdom & Ireland £m	United States £m	Total £m
Non-securitised mortgage loans			
– Residential (Equity release)	3,106	—	3,106
– Commercial	7,748	—	7,748
– Healthcare	4,102	—	4,102
	14,956	—	14,956
Securitised mortgage loans	2,169	—	2,169
Total	17,125	—	17,125
Assets of operations classified as held for sale	—	—	—
Total (excluding assets held for sale)	17,125	—	17,125
FY12 Total	18,211	2,859	21,070

The Group's mortgage loan portfolio is mainly focused in the UK, across various sectors, including residential loans, commercial loans and government supported healthcare loans. Aviva's shareholder exposure to mortgage loans accounts for 96% 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 £3.1 billion (FY12: £3.2 billion). The movement from the prior year is due to £0.5 billion of new loans and accrued interest, £0.5 billion of fair value losses and £0.1 billion of redemptions. 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 29.3% (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 89%, 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.

D3 – Analysis of asset quality continued**D3.2 – Loans continued****Commercial**

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

Shareholder assets

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
Not in arrears	19	57	65	154	142	887	871	1,342	1,224	1,404	6,165
0 – 3 months	—	—	—	—	510	122	—	—	—	—	632
3 – 6 months	—	—	—	—	—	96	625	—	—	—	721
6 – 12 months	—	—	—	—	—	68	—	—	—	—	68
> 12 months	—	—	—	—	—	162	—	—	—	—	162
Total	19	57	65	154	652	1,335	1,496	1,342	1,224	1,404	7,748

Of the total £7.7 billion of UK non-securitised commercial mortgage loan in the shareholder fund, £7.5 billion are held by our UK Life business, of which £7.2 billion 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 £0.2 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.

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, improved slightly to 1.20x (FY12: 1.18x). 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, was flat at 1.40x (FY12: 1.40x). Mortgage LTVs decreased during the year from 95% to 83% (CRAV basis) largely due to an increase in gilt spot rates (on average 74bps) causing the value of the mortgage assets to decrease, combined with a slight increase in property values c1.5% during the year.

All loans in arrears have been assessed for impairment. Of the £1,583 million (FY12: £446 million) value of loans in arrears included within our shareholder assets, the interest and capital amount in arrears is only £15.7 million.

During 2013 there has been a rise in the 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 England. As a result, at HY13 we increased allowances on commercial mortgages (including Healthcare and PFI mortgages) by £0.5 billion. This included a net increase of £0.3 billion and explicit recognition of the £0.2 billion margin previously held implicitly within the reinvestment margins. In the second half of 2013, commercial mortgages have performed in line with expectations, with the impact of the defaults offset by the release of the default allowances. At FY13 the total allowances for commercial mortgage defaults was £1.3 billion (FY12: £1.2 billion including an implicit reinvestment margin of £0.2 billion) against the risk of default on our riskier mortgages. For the UKL (CPF and Healthcare) mortgages with an LTV of greater 100% there was negative equity at FY13 of £0.9 billion compared with the value of the underlying properties. The provision of £1.3 billion therefore would be available to contribute to this amount.

The valuation allowance (including supplementary allowances) of £1.3 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 124bps at 31 December 2013 (FY12: 89bps). The total valuation allowance held by Aviva Annuity UK Limited in respect of corporate bonds and mortgages, including Healthcare and PFI mortgages is £2.0 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 £148 million (FY12: £118 million) of impairment provisions in our UK General Insurance mortgage portfolio, which is carried at amortised cost.

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

If the LIC cover falls below 1.0x and the borrower defaults then Aviva 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 high recovery levels afforded by property collateral (compared to corporate debt or other uncollateralised credit exposures) results in the economic exposure being significantly lower than the gross exposure reported above.

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 £180 million are held by group companies. The remainder is held by third parties external to Aviva. As any cash shortfall arising once all mortgages have 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.

D3 – Analysis of asset quality continued

D3.3 – Financial investments

	2013								Restated 2012
	Cost/ amortised cost £m	Unrealised gains £m	Impairment and unrealised losses £m	Fair value £m	Cost/ amortised cost £m	Unrealised gains £m	Impairment and unrealised losses £m	Fair value £m	
Financial Investments – Total									
Debt securities	120,316	8,164	(1,675)	126,805	148,540	15,316	(2,079)	161,777	
Equity securities	31,164	7,775	(1,559)	37,380	31,833	4,753	(2,273)	34,313	
Other investments	29,454	2,706	(709)	31,451	27,417	1,976	(325)	29,068	
Total	180,934	18,645	(3,943)	195,636	207,790	22,045	(4,677)	225,158	
Assets of operations classified as held for sale	2,705	92	(122)	2,675	32,834	3,762	(181)	36,415	
Total (excluding assets held for sale)	178,229	18,553	(3,821)	192,961	174,956	18,283	(4,496)	188,743	

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 – Total 2013	Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK Government	15,710	1,710	10	17,430
Non-UK Government	32,002	10,358	1,534	43,894
Europe	30,149	6,652	1,534	38,335
North America	230	2,570	—	2,800
Asia Pacific & Other	1,623	1,136	—	2,759
Corporate bonds – Public utilities	4,186	3,752	75	8,013
Corporate convertible bonds	179	1	209	389
Other corporate bonds	22,506	20,209	6,360	49,075
Other	2,459	4,854	691	8,004
Total	77,042	40,884	8,879	126,805
Total %	60.8%	32.2%	7.0%	100.0%
Assets of operations classified as held for sale	2,138	282	—	2,420
Total (excluding assets held for sale)	74,904	40,602	8,879	124,385
Total % (excluding assets held for sale)	60.2%	32.7%	7.1%	100.0%
FY12 Restated	108,107	43,588	10,082	161,777
FY12 % Restated	66.9%	26.9%	6.2%	100.0%

Debt securities – Policyholders assets 2013	Fair value hierarchy			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
UK Government	3,272	19	—	3,291
Non-UK Government	1,215	783	—	1,998
Europe	1,046	495	—	1,541
North America	8	111	—	119
Asia Pacific & Other	161	177	—	338
Corporate bonds – Public utilities	69	173	3	245
Corporate convertible bonds	—	1	—	1
Other corporate bonds	1,182	3,959	342	5,483
Other	904	907	6	1,817
Total	6,642	5,842	351	12,835
Total %	51.8%	45.5%	2.7%	100.0%
Assets of operations classified as held for sale	13	3	—	16
Total (excluding assets held for sale)	6,629	5,839	351	12,819
Total % (excluding assets held for sale)	51.7%	45.6%	2.7%	100.0%
FY12 Restated	14,062	2,267	165	16,494
FY12 % Restated	85.3%	13.7%	1.0%	100.0%

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

Debt securities – Participating fund assets 2013	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m	
UK Government	8,470	1,062	—	9,532
Non-UK Government	26,255	4,072	1,367	31,694
Europe	24,613	3,438	1,367	29,418
North America	192	11	—	203
Asia Pacific & Other	1,450	623	—	2,073
Corporate bonds – Public utilities	3,534	637	54	4,225
Corporate convertible bonds	179	—	129	308
Other corporate bonds	17,865	6,682	5,741	30,288
Other	1,344	2,593	626	4,563
Total	57,647	15,046	7,917	80,610
Total %	71.5%	18.7%	9.8%	100.0%
Assets of operations classified as held for sale	1,890	253	—	2,143
Total (excluding assets held for sale)	55,757	14,793	7,917	78,467
Total % (excluding assets held for sale)	71.0%	18.9%	10.1%	100.0%
FY12 Restated	68,999	5,087	9,490	83,576
FY12 % Restated	82.5%	6.1%	11.4%	100.0%

Debt securities – Shareholder assets 2013	Fair value hierarchy			Total £m
	Level 1 £m	Level 2 £m	Level 3 £m	
UK Government	3,968	629	10	4,607
Non-UK Government	4,532	5,503	167	10,202
Europe	4,490	2,719	167	7,376
North America	30	2,448	—	2,478
Asia Pacific & Other	12	336	—	348
Corporate bonds – Public utilities	583	2,942	18	3,543
Corporate convertible bonds	—	—	80	80
Other corporate bonds	3,459	9,568	277	13,304
Other	211	1,354	59	1,624
Total	12,753	19,996	611	33,360
Total %	38.2%	59.9%	1.9%	100.0%
Assets of operations classified as held for sale	235	26	—	261
Total (excluding assets held for sale)	12,518	19,970	611	33,099
Total % (excluding assets held for sale)	37.8%	60.3%	1.9%	100.0%
FY12 Restated	25,046	36,234	427	61,707
FY12 % Restated	40.6%	58.7%	0.7%	100.0%

1.9% (FY12: 0.7%) of shareholder exposure to debt securities 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.

38.2% (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. This has decreased due to the reclassification of certain debt securities to Level 2 as a result of the enhanced understanding of pricing vendor methodologies for the fair value classification, partially offset by the sale of our US business where the majority of our Level 2 investments were held. Excluding assets held for sale, 37.8% 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 – Total 2013	External ratings						Total £m
	AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	
Government							
UK Government	—	17,175	46	—	—	76	17,297
UK local authorities	—	—	—	—	—	133	133
Non-UK Government	10,968	16,083	3,173	13,104	399	167	43,894
	10,968	33,258	3,219	13,104	399	376	61,324
Corporate							
Public utilities	6	108	4,001	3,381	83	434	8,013
Convertibles and bonds with warrants	—	—	—	303	—	86	389
Other corporate bonds	4,037	7,225	16,784	13,353	1,834	5,842	49,075
	4,043	7,333	20,785	17,037	1,917	6,362	57,477
Certificates of deposits	3	511	412	6	—	2	934
Structured							
RMBS ¹ non-agency ALT A	—	—	—	—	—	—	—
RMBS ¹ non-agency prime	111	22	—	9	—	10	152
RMBS ¹ agency	—	—	—	—	—	—	—
	111	22	—	9	—	10	152
CMBS ²	186	86	15	48	—	1	336
ABS ³	50	329	172	32	89	10	682
CDO (including CLO) ⁴	444	—	—	—	—	—	444
ABCP ⁵	29	—	—	—	—	5	34
	709	415	187	80	89	16	1,496
Wrapped credit	—	18	293	83	34	46	474
Other	598	371	1,481	1,276	1,169	53	4,948
Total	16,432	41,928	26,377	31,595	3,608	6,865	126,805
Total %	13.0%	33.1%	20.8%	24.9%	2.8%	5.4%	100.0%
Assets of operations classified as held for sale	7	10	140	2,212	35	16	2,420
Total (excluding assets held for sale)	16,425	41,918	26,237	29,383	3,573	6,849	124,385
Total % (excluding assets held for sale)	13.2%	33.7%	21.1%	23.6%	2.9%	5.5%	100.0%
FY12 Restated	39,467	27,401	38,594	41,147	6,745	8,423	161,777
FY12 % Restated	24.4%	16.9%	23.9%	25.4%	4.2%	5.2%	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.

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

Debt securities – Policyholders assets 2013	External ratings						Total £m
	AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	
Government							
UK Government	—	3,290	1	—	—	—	3,291
UK local authorities	—	—	—	—	—	—	—
Non-UK Government	426	183	797	528	30	34	1,998
	426	3,473	798	528	30	34	5,289
Corporate							
Public utilities	—	13	124	85	4	19	245
Convertibles and bonds with warrants	—	—	—	—	—	1	1
Other corporate bonds	83	516	2,256	1,329	424	875	5,483
	83	529	2,380	1,414	428	895	5,729
Certificates of deposits	—	409	281	4	—	2	696
Structured							
RMBS ¹ non-agency ALT A	—	—	—	—	—	—	—
RMBS ¹ non-agency prime	—	—	—	—	—	—	—
RMBS ¹ agency	—	—	—	—	—	—	—
CMBS ²	3	—	—	2	—	—	5
ABS ³	—	6	9	—	—	—	15
CDO (including CLO) ⁴	—	—	—	—	—	—	—
ABCP ⁵	—	—	—	—	—	—	—
	3	6	9	2	—	—	20
Wrapped credit	—	—	8	3	—	—	11
Other	133	82	326	281	257	11	1,090
Total	645	4,499	3,802	2,232	715	942	12,835
Total %	5.0%	35.0%	29.6%	17.4%	5.6%	7.4%	100.0%
Assets of operations classified as held for sale	6	—	3	7	—	—	16
Total (excluding assets held for sale)	639	4,499	3,799	2,225	715	942	12,819
Total % (excluding assets held for sale)	5.0%	35.1%	29.6%	17.4%	5.6%	7.3%	100.0%
FY12 Restated	5,205	1,389	4,710	3,704	999	487	16,494
FY12 % Restated	31.5%	8.4%	28.6%	22.4%	6.1%	3.0%	100.0%

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

Debt securities – Participating fund assets 2013	External ratings						Total £m
	AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	
Government							
UK Government	—	9,523	—	—	—	9	9,532
UK local authorities	—	—	—	—	—	—	—
Non-UK Government	6,255	12,459	1,505	10,993	351	131	31,694
	6,255	21,982	1,505	10,993	351	140	41,226
Corporate							
Public utilities	—	59	1,567	2,320	79	200	4,225
Convertibles and bonds with warrants	—	—	—	300	—	8	308
Other corporate bonds	2,972	5,374	9,399	8,676	1,119	2,748	30,288
	2,972	5,433	10,966	11,296	1,198	2,956	34,821
Certificates of deposits	—	37	75	2	—	—	114
Structured							
RMBS ¹ non-agency ALT A	—	—	—	—	—	—	—
RMBS ¹ non-agency prime	39	—	—	9	—	—	48
RMBS ¹ agency	—	—	—	—	—	—	—
	39	—	—	9	—	—	48
CMBS ²	70	35	9	31	—	1	146
ABS ³	18	29	66	17	28	—	158
CDO (including CLO) ⁴	444	—	—	—	—	—	444
ABCP ⁵	7	—	—	—	—	—	7
	539	64	75	48	28	1	755
Wrapped credit	—	13	42	20	—	—	75
Other	431	267	1,070	921	844	38	3,571
Total	10,236	27,796	13,733	23,289	2,421	3,135	80,610
Total %	12.7%	34.5%	17.0%	28.9%	3.0%	3.9%	100.0%
Assets of operations classified as held for sale	—	10	131	1,958	30	14	2,143
Total (excluding assets held for sale)	10,236	27,786	13,602	21,331	2,391	3,121	78,467
Total % (excluding assets held for sale)	13.1%	35.4%	17.3%	27.2%	3.0%	4.0%	100.0%
FY12 Restated	21,974	17,135	16,104	22,019	3,822	2,522	83,576
FY12 % Restated	26.3%	20.5%	19.3%	26.3%	4.6%	3.0%	100.0%

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	—	4,362	45	—	—	67	4,474
UK local authorities	—	—	—	—	—	133	133
Non-UK Government	4,287	3,441	871	1,583	18	2	10,202
	4,287	7,803	916	1,583	18	202	14,809
Corporate							
Public utilities	6	36	2,310	976	—	215	3,543
Convertibles and bonds with warrants	—	—	—	3	—	77	80
Other corporate bonds	982	1,335	5,129	3,348	291	2,219	13,304
	988	1,371	7,439	4,327	291	2,511	16,927
Certificates of deposits	3	65	56	—	—	—	124
Structured							
RMBS ¹ non-agency ALT A	—	—	—	—	—	—	—
RMBS ¹ non-agency prime	72	22	—	—	—	10	104
RMBS ¹ agency	—	—	—	—	—	—	—
	72	22	—	—	—	10	104
CMBS ²	113	51	6	15	—	—	185
ABS ³	32	294	97	15	61	10	509
CDO (including CLO) ⁴	—	—	—	—	—	—	—
ABCP ⁵	22	—	—	—	—	5	27
	167	345	103	30	61	15	721
Wrapped credit	—	5	243	60	34	46	388
Other	34	22	85	74	68	4	287
Total	5,551	9,633	8,842	6,074	472	2,788	33,360
Total %	16.6%	28.9%	26.5%	18.2%	1.4%	8.4%	100.0%
Assets of operations classified as held for sale	1	—	6	247	5	2	261
Total (excluding assets held for sale)	5,550	9,633	8,836	5,827	467	2,786	33,099
Total % (excluding assets held for sale)	16.8%	29.1%	26.7%	17.6%	1.4%	8.4%	100.0%
FY12 Restated	12,288	8,877	17,780	15,424	1,924	5,414	61,707
FY12 % Restated	19.9%	14.4%	28.8%	25.0%	3.1%	8.8%	100.0%

The overall quality of the book remains strong, despite the continuing downgrade activity by the major rating agencies during the period. 44% of shareholder exposure to debt securities is in government holdings (FY12: 25%). Our corporate debt securities portfolio represents 51% (FY12: 66%) of total shareholder debt securities.

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

At 31 December 2013, the proportion of our shareholder debt securities that are investment grade remained stable at 90.2% (FY12: 88.1%). The remaining 9.8% of shareholder debt securities that do not have an external rating of BBB or higher can be split as follows:

- 1.4% are debt securities that are rated as below investment grade;
- 8.4% are not rated by the major rating agencies.

Of the securities not rated by an external agency most are allocated an internal rating using a methodology largely consistent with that adopted by an external rating agency, and are considered to be of investment grade credit quality; these include £2.4 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 Group has extremely limited exposure to CDOs, CLOs and 'Sub-prime' debt securities.

Asset backed securities (ABS) are held primarily by our UK Life business (£496 million). 86.1% 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 0.2% of shareholder exposure to debt securities.

D3 – Analysis of asset quality continued

D3.3 – Financial investments continued

D3.3.2 – Equity securities

	2013				Restated 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 – Total assets								
Public utilities	3,716	—	—	3,716	3,696	—	—	3,696
Banks, trusts and insurance companies	7,536	88	383	8,007	7,150	72	415	7,637
Industrial miscellaneous and all other	25,186	14	60	25,260	22,327	158	58	22,543
Non-redeemable preferred shares	397	—	—	397	437	—	—	437
Total	36,835	102	443	37,380	33,610	230	473	34,313
Total %	98.5%	0.3%	1.2%	100.0%	98.0%	0.7%	1.3%	100.0%
Assets of operations classified as held for sale	52	—	2	54	1,068	180	—	1,248
Total (excluding assets held for sale)	36,783	102	441	37,326	32,542	50	473	33,065
Total % (excluding assets held for sale)	98.5%	0.3%	1.2%	100.0%	98.4%	0.2%	1.4%	100.0%

	2013				Restated 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 – Policyholder assets								
Public utilities	2,727	—	—	2,727	2,575	—	—	2,575
Banks, trusts and insurance companies	4,982	57	1	5,040	3,991	—	2	3,993
Industrial miscellaneous and all other	17,967	—	2	17,969	15,852	137	1	15,990
Non-redeemable preferred shares	100	—	—	100	90	—	—	90
Total	25,776	57	3	25,836	22,508	137	3	22,648
Total %	99.8%	0.2%	0.0%	100.0%	99.4%	0.6%	0.0%	100.0%
Assets of operations classified as held for sale	2	—	—	2	1,057	119	—	1,176
Total (excluding assets held for sale)	25,774	57	3	25,834	21,451	18	3	21,472
Total % (excluding assets held for sale)	99.8%	0.2%	0.0%	100.0%	99.9%	0.1%	0.0%	100.0%

	2013				Restated 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 – Participating fund assets								
Public utilities	985	—	—	985	1,103	—	—	1,103
Banks, trusts and insurance companies	2,392	30	88	2,510	2,515	—	86	2,601
Industrial miscellaneous and all other	6,977	14	44	7,035	6,363	21	45	6,429
Non-redeemable preferred shares	14	—	—	14	24	—	—	24
Total	10,368	44	132	10,544	10,005	21	131	10,157
Total %	98.3%	0.4%	1.3%	100.0%	98.5%	0.2%	1.3%	100.0%
Assets of operations classified as held for sale	49	—	—	49	—	—	—	—
Total (excluding assets held for sale)	10,319	44	132	10,495	10,005	21	131	10,157
Total % (excluding assets held for sale)	98.3%	0.4%	1.3%	100.0%	98.5%	0.2%	1.3%	100.0%

	2013				Restated 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	4	—	—	4	18	—	—	18
Banks, trusts and insurance companies	162	1	294	457	644	72	327	1,043
Industrial miscellaneous and all other	242	—	14	256	112	—	12	124
Non-redeemable preferred shares	283	—	—	283	323	—	—	323
Total	691	1	308	1,000	1,097	72	339	1,508
Total %	69.1%	0.1%	30.8%	100.0%	72.7%	4.8%	22.5%	100.0%
Assets of operations classified as held for sale	1	—	2	3	11	61	—	72
Total (excluding assets held for sale)	690	1	306	997	1,086	11	339	1,436
Total % (excluding assets held for sale)	69.2%	0.1%	30.7%	100.0%	75.6%	0.8%	23.6%	100.0%

69.1% 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 year. Excluding assets of operations classified as held for sale, 69.2% of shareholder exposure is to equities that are Level 1 (FY12: 75.6%).

Shareholder investments include a strategic holding in Italian banks of £258 million (£132 million, net of any non-controlling interest share in the Group companies that own the investments).

D3 – Analysis of asset quality continued

D3.3 – Financial investments continued

D3.3.3 – Other investments

	2013				Restated 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 – Total								
Unit trusts and other investment vehicles	22,939	3,288	2,379	28,606	19,170	3,709	2,703	25,582
Derivative financial instruments	222	729	107	1,058	340	1,203	47	1,590
Deposits with credit institutions	590	11	—	601	702	11	26	739
Minority holdings in property management undertakings	—	255	541	796	—	727	—	727
Other	381	—	9	390	321	—	109	430
Total	24,132	4,283	3,036	31,451	20,533	5,650	2,885	29,068
Total %	76.7%	13.6%	9.7%	100.0%	70.6%	19.4%	10.0%	100.0%
Assets of operations classified as held for sale	55	—	146	201	445	709	396	1,550
Total (excluding assets held for sale)	24,077	4,283	2,890	31,250	20,088	4,941	2,489	27,518
Total % (excluding assets held for sale)	77.0%	13.7%	9.3%	100.0%	73.0%	18.0%	9.0%	100.0%

	2013				Restated 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 – Policyholder assets								
Unit trusts and other investment vehicles	22,713	3,108	3	25,824	18,909	3,423	56	22,388
Derivative financial instruments	20	5	—	25	34	7	—	41
Deposits with credit institutions	401	—	—	401	515	—	—	515
Minority holdings in property management undertakings	—	—	—	—	—	6	—	6
Other	313	—	—	313	311	—	—	311
Total	23,447	3,113	3	26,563	19,769	3,436	56	23,261
Total %	88.3%	11.7%	0.0%	100.0%	85.0%	14.8%	0.2%	100.0%
Assets of operations classified as held for sale	12	—	—	12	206	51	—	257
Total (excluding assets held for sale)	23,435	3,113	3	26,551	19,563	3,385	56	23,004
Total % (excluding assets held for sale)	88.3%	11.7%	0.0%	100.0%	85.0%	14.8%	0.2%	100.0%

	2013				Restated 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 – Participating fund assets								
Unit trusts and other investment vehicles	1	167	2,243	2,411	—	264	2,231	2,495
Derivative financial instruments	182	407	97	686	132	300	—	432
Deposits with credit institutions	40	—	—	40	44	—	—	44
Minority holdings in property management undertakings	—	241	438	679	—	605	—	605
Other	58	—	6	64	—	—	62	62
Total	281	815	2,784	3,880	176	1,169	2,293	3,638
Total %	7.2%	21.0%	71.8%	100.0%	4.9%	32.1%	63.0%	100.0%
Assets of operations classified as held for sale	6	—	124	130	70	—	—	70
Total (excluding assets held for sale)	275	815	2,660	3,750	106	1,169	2,293	3,568
Total % (excluding assets held for sale)	7.3%	21.7%	71.0%	100.0%	3.0%	32.8%	64.2%	100.0%

	2013				Restated 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	225	13	133	371	261	22	416	699
Derivative financial instruments	20	317	10	347	174	896	47	1,117
Deposits with credit institutions	149	11	—	160	143	11	26	180
Minority holdings in property management undertakings	—	14	103	117	—	116	—	116
Other	10	—	3	13	10	—	47	57
Total	404	355	249	1,008	588	1,045	536	2,169
Total %	40.1%	35.2%	24.7%	100.0%	27.1%	48.2%	24.7%	100.0%
Assets of operations classified as held for sale	37	—	22	59	169	658	396	1,223
Total (excluding assets held for sale)	367	355	227	949	419	387	140	946
Total % (excluding assets held for sale)	38.7%	37.4%	23.9%	100.0%	44.3%	40.9%	14.8%	100.0%

In total 75.3% (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.

D3 – Analysis of asset quality continued**D3.3 – Financial investments continued****D3.3.4 – Available for sale investments – Impairments and duration and amount of unrealised losses**

The total impairment expense for 2013 for AFS debt securities was £12 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 31 December 2013 were £8 million (*FY12: £74 million*), £nil (*FY12: £nil*) and £nil (*FY12: £5 million*) respectively.

We have not recognised an impairment charge in respect of these unrealised losses as we believe the decline in fair value of these securities, relative to their amortised cost, to be temporary.

	0 - 6 months		7 - 12 months		more than 12 months		Total	
	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m
2013								
Less than 20% loss position:								
Debt securities	25	—	9	—	279	(6)	313	(6)
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	—	—	3	—	3	—
	25	—	9	—	282	(6)	316	(6)
20%-50% loss position:								
Debt securities	—	—	—	—	3	(2)	3	(2)
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	—	—	—	—	—	—
	—	—	—	—	3	(2)	3	(2)
Greater than 50% loss position:								
Debt securities	—	—	—	—	—	—	—	—
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
Total								
Debt securities	25	—	9	—	282	(8)	316	(8)
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	—	—	3	—	3	—
	25	—	9	—	285	(8)	319	(8)
Assets of operations classified as held for sale	—	—	—	—	—	—	—	—
Total (excluding assets held for sale)	25	—	9	—	285	(8)	319	(8)

¹ Only includes AFS securities that are in unrealised loss positions.

	0 - 6 months		7 - 12 months		more than 12 months		Total	
	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m	Fair value ¹ £m	Gross unrealised £m
2012								
Less than 20% loss position:								
Debt securities	2,006	(14)	53	(3)	534	(11)	2,593	(28)
Equity securities	—	—	—	—	2	—	2	—
Other investments	8	—	8	—	20	(3)	36	(3)
	2,014	(14)	61	(3)	556	(14)	2,631	(31)
20%-50% loss position:								
Debt securities	—	—	—	—	70	(34)	70	(34)
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	2	(1)	2	(1)	4	(2)
	—	—	2	(1)	72	(35)	74	(36)
Greater than 50% loss position:								
Debt securities	—	—	—	—	7	(12)	7	(12)
Equity securities	—	—	—	—	—	—	—	—
Other investments	—	—	—	—	—	—	—	—
	—	—	—	—	7	(12)	7	(12)
Total								
Debt securities	2,006	(14)	53	(3)	611	(57)	2,670	(74)
Equity securities	—	—	—	—	2	—	2	—
Other investments	8	—	10	(1)	22	(4)	40	(5)
	2,014	(14)	63	(4)	635	(61)	2,712	(79)
Assets of operations classified as held for sale	2,014	(14)	63	(4)	231	(58)	2,308	(76)
Total (excluding assets held for sale)	—	—	—	—	404	(3)	404	(3)

¹ Only includes AFS securities that are in unrealised loss positions.

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, 96% 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	
	2013 £bn	2012 £bn	2013 £bn	2012 £bn	2013 £bn	2012 £bn
Greece	—	—	—	—	—	—
Ireland	0.4	0.4	—	—	0.4	0.4
Portugal	0.2	0.3	—	—	0.2	0.3
Italy	4.5	4.5	0.4	0.4	4.9	4.9
Spain	0.9	0.9	0.5	0.5	1.4	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	
	2013 £bn	2012 £bn	2013 £bn	2012 £bn	2013 £bn	2012 £bn
Greece	—	—	—	—	—	—
Ireland	0.4	0.4	—	—	0.4	0.4
Portugal	0.2	0.3	—	—	0.2	0.3
Italy	8.5	8.5	0.6	0.6	9.1	9.1
Spain	1.4	1.3	0.9	0.9	2.3	2.2
Total Greece, Ireland, Portugal, Italy and Spain	10.5	10.5	1.5	1.5	12.0	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	
	2013 £m	Restated 2012 £m	2013 £m	Restated 2012 £m	2013 £m	2012 £m	2013 £m	Restated 2012 £m
Non UK Government Debt Securities								
Austria	9	14	636	634	133	123	778	771
Belgium	29	45	1,475	1,342	154	172	1,658	1,559
France	108	189	9,714	9,073	1,909	1,944	11,731	11,206
Germany	146	217	1,922	2,390	763	957	2,831	3,564
Greece	—	—	1	—	—	—	1	—
Ireland	21	35	364	363	28	26	413	424
Italy	255	263	8,458	8,518	628	617	9,341	9,398
Netherlands	43	65	1,222	1,194	399	228	1,664	1,487
Poland	649	673	885	1,015	490	445	2,024	2,133
Portugal	—	—	187	257	—	—	187	257
Spain	101	36	1,355	1,317	930	854	2,386	2,207
European Supranational debt	89	136	2,612	2,928	1,583	1,470	4,284	4,534
Other European countries	91	238	587	646	359	421	1,037	1,305
Europe	1,541	1,911	29,418	29,677	7,376	7,257	38,335	38,845
Canada	7	18	171	195	2,198	2,517	2,376	2,730
United States	112	131	32	40	280	1,665	424	1,836
North America	119	149	203	235	2,478	4,182	2,800	4,566
Singapore	8	7	450	453	288	276	746	736
Sri Lanka	1	1	7	3	—	—	8	4
Other	329	625	1,616	1,291	60	393	2,005	2,309
Asia Pacific and other	338	633	2,073	1,747	348	669	2,759	3,049
Total	1,998	2,693	31,694	31,659	10,202	12,108	43,894	46,460
Less: assets of operations classified as held for sale	13	197	1,649	556	201	2,274	1,863	3,027
Total (excluding assets held for sale)	1,985	2,496	30,045	31,103	10,001	9,834	42,031	43,433

At 31 December 2013, the Group's total non-UK government debt securities stood at £43.9 billion (*FY12: £46.5 billion*), a decrease of £2.6 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 non-UK government debt securities amounts to £10.2 billion (*FY12: £12.1 billion*). The primary exposures, relative to total shareholder non-UK government debt exposure, are to Canadian (22%), French (19%), Spanish (9%), German (7%) and Italian (6%) government debt securities.

The participating funds exposure to non-UK government debt amounts to £31.7 billion (*FY12: £31.7 billion*). The primary exposures, relative to total non-UK government debt exposures included within our participating funds, are to the government debt securities of France (31%), Italy (27%), Germany (6%), Belgium (5%), Spain (4%) and Netherlands (4%).

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
2013						
Austria	—	—	—	0.2	—	0.2
France	0.2	—	0.2	3.4	0.9	4.3
Germany	—	—	—	0.5	0.5	1.0
Italy	0.1	0.1	0.2	0.3	0.1	0.4
Netherlands	0.2	0.2	0.4	1.8	0.1	1.9
Spain	0.8	0.1	0.9	0.9	0.1	1.0
United Kingdom	0.6	0.3	0.9	0.7	0.9	1.6
United States	0.5	0.1	0.6	1.0	0.1	1.1
Other	0.4	0.3	0.7	1.7	0.5	2.2
Total	2.8	1.1	3.9	10.5	3.2	13.7
Less: assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	2.8	1.1	3.9	10.5	3.2	13.7
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 £3.9 billion. The reduction from 2012 is principally driven by the disposal of our US business during 2013. The majority of our holding (72%) is in senior debt. The primary exposures are to Spanish (23%), UK (23%) and US (15%) 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 £13.7 billion. The majority of the exposure (77%) is in senior debt. Participating funds are the most exposed to French (31%), Dutch (14%) and UK (12%) 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
2013						
Austria	—	—	—	0.2	—	0.2
France	0.2	—	0.2	3.8	0.9	4.7
Germany	0.1	—	0.1	0.6	0.5	1.1
Italy	0.1	0.1	0.2	0.7	0.1	0.8
Netherlands	0.2	0.2	0.4	1.8	0.2	2.0
Spain	1.1	0.1	1.2	1.2	0.1	1.3
United Kingdom	0.6	0.3	0.9	0.8	1.0	1.8
United States	0.5	0.2	0.7	1.0	0.1	1.1
Other	0.5	0.3	0.8	2.0	0.6	2.6
Total	3.3	1.2	4.5	12.1	3.5	15.6
Less: assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	3.3	1.2	4.5	12.1	3.5	15.6
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 £4.5 billion. The majority of our holding (73%) is in senior debt. The primary exposures are to Spanish (27%), UK (20%) and US (16%) 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 £15.6 billion. The majority of the exposure (78%) is in senior debt. Participating funds are the most exposed to French (30%), Dutch (13%) and UK (12%) banks.

D3 – Analysis of asset quality continued

D3.4 – Reinsurance assets

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

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

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

Arrears 2013	Financial assets that are past due but not impaired					Financial assets that have been impaired £m	Total £m
	Neither past due nor impaired £m	0-3 months £m	3-6 months £m	6 months - 1 year £m	Greater than 1 year £m		
Policyholders assets	2,043	—	—	—	—	—	2,043
Participating fund assets	628	—	—	—	—	—	628
Shareholder assets	4,586	—	—	—	—	—	4,586
Total	7,257	—	—	—	—	—	7,257
Total %	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Assets of operations classified as held for sale	37	—	—	—	—	—	37
Total (excluding assets held for sale)	7,220	—	—	—	—	—	7,220
Total % (excluding assets held for sale)	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
FY 2012	7,567	—	—	—	—	—	7,567
FY 2012 %	100.0%	—	—	—	—	—	100.0%

Ratings 2013	Ratings						Total £m
	AAA £m	AA £m	A £m	BBB £m	Less than BBB £m	Non-rated £m	
Policyholders assets	—	10	1,608	43	—	382	2,043
Participating fund assets	—	194	433	—	—	1	628
Shareholder assets	25	3,684	650	35	6	186	4,586
Total	25	3,888	2,691	78	6	569	7,257
Total %	0.3%	53.6%	37.1%	1.1%	0.1%	7.8%	100.0%
Assets of operations classified as held for sale	—	17	—	9	—	11	37
Total (excluding assets held for sale)	25	3,871	2,691	69	6	558	7,220
Total % (excluding assets held for sale)	0.3%	53.6%	37.3%	1.0%	0.1%	7.7%	100.0%
FY 2012	28	4,795	2,281	56	5	402	7,567
FY 2012 %	0.4%	63.4%	30.1%	0.7%	0.1%	5.3%	100.0%

D3 – Analysis of asset quality continued**D3.5 – Receivables and other financial assets**

Arrears 2013	Financial assets that are past due but not impaired					Financial assets that have been impaired £m	Total £m
	Neither past due nor impaired £m	0-3 months £m	3-6 months £m	6 months - 1 year £m	Greater than 1 year £m		
Policyholders assets	227	29	—	1	1	—	258
Participating fund assets	2,031	1	—	1	—	—	2,033
Shareholder assets	4,753	26	26	16	21	4	4,846
Total	7,011	56	26	18	22	4	7,137
Total %	98.2%	0.8%	0.4%	0.2%	0.3%	0.1%	100.0%
Assets of operations classified as held for sale	77	—	—	—	—	—	77
Total (excluding assets held for sale)	6,934	56	26	18	22	4	7,060
Total % (excluding held for sale)	98.2%	0.8%	0.4%	0.2%	0.3%	0.1%	100.0%
FY 2012 Restated	7,790	46	13	14	26	—	7,889
FY 2012 % Restated	98.7%	0.6%	0.2%	0.2%	0.3%	0.0%	100.0%

Credit terms vary from subsidiary to subsidiary, and from country to country, and are set locally within overall credit limits prescribed by the Group credit limit framework, and in line with the Group Credit Policy.

The credit quality of receivables and other financial assets is managed at the local business unit level. Where assets classed as 'past due and impaired' exceed local credit limits, and are also deemed at sufficiently high risk of default, an analysis of the asset is performed and a decision is made whether to seek sufficient collateral from the counterparty or to write down the value of the asset as impaired.

The Group reviews the carrying value of its receivables at each reporting period. If the carrying value of a receivable or other financial asset is greater than the recoverable amount, the carrying value is reduced through a charge to the income statement in the period of impairment.

D3.6 – Cash and cash equivalents

Cash and cash equivalents consist of cash at banks and in hand, deposits held at call with banks, treasury bills and other short-term highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are normally those with less than three months maturity from the date of acquisition, and include certificates of deposit with maturities of less than three months at date of issue.

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 "Scheme 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.

Total scheme assets are comprised in the UK, Ireland and Canada as follows:

	2013				2012			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Bonds ¹								
Fixed interest government	1,500	139	69	1,708	1,601	130	76	1,807
Fixed interest corporate	2,776	10	60	2,846	2,595	14	45	2,654
Index-linked	4,502	112	—	4,614	4,492	116	—	4,608
Equities	900	99	81	1,080	909	87	92	1,088
Property	1,074	13	—	1,087	914	12	—	926
Cash	518	1	21	540	514	44	13	571
Derivatives	225	55	—	280	386	1	—	387
Other ¹	239	2	2	243	236	2	2	240
Total fair value of assets	11,734	431	233	12,398	11,647	406	228	12,281

¹ £179 million of transferrable insurance policies with other Group companies in the UK, previously disclosed within bonds, has been reclassified to other assets for 2012.

D4 – Pension fund assets continued

Total scheme assets are analysed by those that have a quoted price in an active market and those that do not as follows:

	2013			2012		
	Total Quoted £m	Total Unquoted £m	Total £m	Total Quoted £m	Total Unquoted £m	Total £m
Bonds ¹						
Fixed interest government	808	900	1,708	1,566	241	1,807
Fixed interest corporate	10	2,836	2,846	7	2,647	2,654
Index-linked	3,864	750	4,614	2,698	1,910	4,608
Equities	409	671	1,080	484	604	1,088
Property	—	1,087	1,087	—	926	926
Cash	540	—	540	571	—	571
Derivatives	88	192	280	15	372	387
Other ¹	—	243	243	—	240	240
Total fair value of assets	5,719	6,679	12,398	5,341	6,940	12,281

¹ £179 million of transferrable insurance policies with other Group companies in the UK, previously disclosed within bonds, has been reclassified to other assets for 2012.

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 portfolio, consisting primarily (nearly 75%) of debt securities. The investment strategy will continue to evolve over time and is expected to match to the liability profile increasingly closely.

Main UK Scheme

The Company works closely with the trustee, who is required to consult it on the investment strategy.

Interest rate and inflation risks are managed using a combination of liability-matching assets and swaps. Exposure to equity risk has been reducing over time and credit risk is managed within risk appetite. Currency risk is relatively small and is largely hedged. The other principal risk is longevity risk. On 5 March 2014, ASPS entered into a longevity swap covering approximately £5 billion of pensioner in payment scheme liabilities. The swap transfers longevity risk to three external reinsurers.

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 B16 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:

	2013 £m	2012 £m
Expiring within one year	400	420
Expiring beyond one year	1,100	1,725
Total	1,500	2,145

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

In this section	Page
E1 Trend analysis of VNB (continuing operations) – cumulative	128
E2 Trend analysis of VNB (continuing operations) – discrete	128
E3 Trend analysis of PVNBP (continuing operations) – cumulative	129
E4 Trend analysis of PVNBP (continuing operations) – discrete	129
E5 Trend analysis of PVNBP by product (continuing operations) – cumulative	130
E6 Trend analysis of PVNBP by product (continuing operations) – discrete	130
E7 Trend analysis of investment sales (continuing operations) – cumulative	131
E8 Trend analysis of investment sales (continuing operations) – discrete	131
E9 Geographical analysis of regular and single premiums – life and pension sales	131
E10 Geographical analysis of regular and single premiums – investment sales	131
E11 Trend analysis of general insurance and health net written premiums – cumulative	132
E12 Trend analysis of general insurance and health net written premiums – discrete	132

VNB & 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	3Q13 YTD £m	4Q13 YTD £m	Growth on 4Q12 YTD	
									Sterling %	Local currency %
Gross of tax and non-controlling interests										
United Kingdom	81	182	288	420	108	211	302	435	4%	4%
Ireland	(2)	(6)	(11)	(8)	(1)	1	2	6	175%	167%
United Kingdom & Ireland	79	176	277	412	107	212	304	441	7%	7%
France	35	62	84	119	39	86	112	166	39%	34%
Poland	10	18	23	35	10	21	34	51	46%	42%
Italy	9	14	19	29	4	6	7	15	(48)%	(50)%
Spain	14	21	32	56	5	13	19	33	(41)%	(43)%
Turkey	6	13	20	30	10	20	28	37	23%	28%
Other Europe	—	2	2	2	1	1	1	1	(50)%	(50)%
Europe	74	130	180	271	69	147	201	303	12%	9%
Asia – excluding Malaysia & Sri Lanka	14	29	46	55	19	41	66	91	65%	65%
Value of new business – excluding Malaysia & Sri Lanka	167	335	503	738	195	400	571	835	13%	12%
Malaysia & Sri Lanka	2	8	8	8	1	1	1	1	(88)%	(89)%
Total value of new business	169	343	511	746	196	401	572	836	12%	11%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

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	3Q13 Discrete £m	4Q13 Discrete £m	Growth on 4Q12	
									Sterling %	Local currency %
Gross of tax and non-controlling interests										
United Kingdom	81	101	106	132	108	103	91	133	1%	1%
Ireland	(2)	(4)	(5)	3	(1)	2	1	4	33%	29%
United Kingdom & Ireland	79	97	101	135	107	105	92	137	1%	1%
France	35	27	22	35	39	47	26	54	54%	48%
Poland	10	8	5	12	10	11	13	17	42%	36%
Italy	9	5	5	10	4	2	1	8	(20)%	(23)%
Spain	14	7	11	24	5	8	6	14	(42)%	(44)%
Turkey	6	7	7	10	10	10	8	9	(10)%	(6)%
Other Europe	—	2	—	—	1	—	—	—	—	—
Europe	74	56	50	91	69	78	54	102	12%	9%
Asia – excluding Malaysia & Sri Lanka	14	15	17	9	19	22	25	25	178%	172%
Value of new business – excluding Malaysia & Sri Lanka	167	168	168	235	195	205	171	264	12%	11%
Malaysia & Sri Lanka	2	6	—	—	1	—	—	—	—	—
Total value of new business	169	174	168	235	196	205	171	264	12%	11%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

E3 – Trend analysis of PVNBP (continuing operations¹) – cumulative

Present value of new business premiums ²	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	3Q13 YTD £m	4Q13 YTD £m	Growth on 4Q12 YTD	
									Sterling %	Local currency %
Life and pensions business										
United Kingdom	2,430	5,387	8,002	10,410	2,336	4,441	6,657	9,379	(10)%	(10)%
Ireland	199	342	469	632	117	225	338	469	(26)%	(29)%
United Kingdom & Ireland	2,629	5,729	8,471	11,042	2,453	4,666	6,995	9,848	(11)%	(11)%
France	1,092	1,944	2,671	3,638	1,245	2,373	3,382	4,509	24%	19%
Poland	107	201	274	373	123	227	358	486	30%	25%
Italy	673	1,259	1,603	1,971	614	1,305	1,751	2,235	13%	9%
Spain	402	705	934	1,295	375	641	813	1,224	(5)%	(9)%
Turkey	68	141	212	312	135	253	341	524	68%	76%
Other Europe	56	108	132	158	20	20	20	20	(87)%	(87)%
Europe	2,398	4,358	5,826	7,747	2,512	4,819	6,665	8,998	16%	12%
Asia – excluding Malaysia & Sri Lanka	418	854	1,287	1,673	472	845	1,243	1,628	(3)%	(4)%
Other business ³	13	30	79	92	4	7	28	58	(37)%	(37)%
Total life and pensions sales – excluding Malaysia & Sri Lanka	5,458	10,971	15,663	20,554	5,441	10,337	14,931	20,532	—	(2)%
Malaysia & Sri Lanka	24	59	80	92	16	16	16	16	(83)%	(82)%
Total life and pensions sales	5,482	11,030	15,743	20,646	5,457	10,353	14,947	20,548	—	(2)%
Investment sales⁴	949	1,934	3,400	4,586	1,134	2,498	3,718	4,875	6%	4%
Total long-term savings sales	6,431	12,964	19,143	25,232	6,591	12,851	18,665	25,423	1%	(1)%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

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.

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

Present value of new business premiums ²	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	3Q13 Discrete £m	4Q13 Discrete £m	Growth on 4Q12	
									Sterling %	Local currency %
Life and pensions business										
United Kingdom	2,430	2,957	2,615	2,408	2,336	2,105	2,216	2,722	13%	13%
Ireland	199	143	127	163	117	108	113	131	(20)%	(23)%
United Kingdom & Ireland	2,629	3,100	2,742	2,571	2,453	2,213	2,329	2,853	11%	11%
France	1,092	852	727	967	1,245	1,128	1,009	1,127	17%	12%
Poland	107	94	73	99	123	104	131	128	29%	24%
Italy	673	586	344	368	614	691	446	484	32%	26%
Spain	402	303	229	361	375	266	172	411	14%	9%
Turkey	68	73	71	100	135	118	88	183	83%	91%
Other Europe	56	52	24	26	20	—	—	—	(100)%	(100)%
Europe	2,398	1,960	1,468	1,921	2,512	2,307	1,846	2,333	21%	17%
Asia – excluding Malaysia & Sri Lanka	418	436	433	386	472	373	398	385	—	(2)%
Other business ³	13	17	49	13	4	3	21	30	131%	131%
Total life and pensions sales – excluding Malaysia & Sri Lanka	5,458	5,513	4,692	4,891	5,441	4,896	4,594	5,601	15%	13%
Malaysia & Sri Lanka	24	35	21	12	16	—	—	—	(100)%	(100)%
Total life and pensions sales	5,482	5,548	4,713	4,903	5,457	4,896	4,594	5,601	14%	12%
Investment sales⁴	949	985	1,466	1,186	1,134	1,364	1,220	1,157	(2)%	(4)%
Total long-term savings sales	6,431	6,533	6,179	6,089	6,591	6,260	5,814	6,758	11%	9%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

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.

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 4Q12 YTD	
									Sterling %	Local currency %
Present value of new business premiums ²	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	3Q13 YTD £m	4Q13 YTD £m		
Life and pensions business										
Pensions	1,251	2,762	3,963	5,158	1,322	2,479	3,818	5,476	6%	6%
Annuities	662	1,555	2,459	3,211	630	1,217	1,664	2,327	(28)%	(28)%
Bonds	128	253	322	379	33	59	97	183	(52)%	(52)%
Protection	300	608	920	1,228	253	504	781	992	(19)%	(19)%
Equity release	89	209	338	434	98	182	297	401	(8)%	(8)%
United Kingdom	2,430	5,387	8,002	10,410	2,336	4,441	6,657	9,379	(10)%	(10)%
Ireland	199	342	469	632	117	225	338	469	(26)%	(29)%
United Kingdom & Ireland	2,629	5,729	8,471	11,042	2,453	4,666	6,995	9,848	(11)%	(11)%
Savings	1,038	1,842	2,541	3,462	1,169	2,235	3,206	4,284	24%	19%
Protection	54	102	130	176	76	138	176	225	28%	23%
France	1,092	1,944	2,671	3,638	1,245	2,373	3,382	4,509	24%	19%
Pensions	180	311	430	672	246	409	577	907	35%	34%
Savings	994	1,836	2,337	2,888	882	1,770	2,353	3,124	8%	4%
Annuities	11	18	25	39	11	17	20	29	(26)%	(29)%
Protection	121	249	363	510	128	250	333	429	(16)%	(18)%
Poland, Italy, Spain and Other	1,306	2,414	3,155	4,109	1,267	2,446	3,283	4,489	9%	6%
Europe	2,398	4,358	5,826	7,747	2,512	4,819	6,665	8,998	16%	12%
Asia – excluding Malaysia & Sri Lanka	418	854	1,287	1,673	472	845	1,243	1,628	(3)%	(4)%
Other business³	13	30	79	92	4	7	28	58	(37)%	(37)%
Total life and pensions sales – excluding Malaysia & Sri Lanka	5,458	10,971	15,663	20,554	5,441	10,337	14,931	20,532	—	(2)%
Malaysia & Sri Lanka	24	59	80	92	16	16	16	16	(83)%	(82)%
Total life and pensions sales	5,482	11,030	15,743	20,646	5,457	10,353	14,947	20,548	—	(2)%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

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.

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	3Q13 Discrete £m	4Q13 Discrete £m	Growth on 4Q12	
									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	1,339	1,658	39%	39%
Annuities	662	893	904	752	630	587	447	663	(12)%	(12)%
Bonds	128	125	69	57	33	26	38	86	51%	51%
Protection	300	308	312	308	253	251	277	211	(31)%	(31)%
Equity release	89	120	129	96	98	84	115	104	8%	8%
United Kingdom	2,430	2,957	2,615	2,408	2,336	2,105	2,216	2,722	13%	13%
Ireland	199	143	127	163	117	108	113	131	(20)%	(23)%
United Kingdom & Ireland	2,629	3,100	2,742	2,571	2,453	2,213	2,329	2,853	11%	11%
Savings	1,038	804	699	921	1,169	1,066	971	1,078	17%	12%
Protection	54	48	28	46	76	62	38	49	7%	2%
France	1,092	852	727	967	1,245	1,128	1,009	1,127	17%	12%
Pensions	180	131	119	242	246	163	168	330	36%	35%
Savings	994	842	501	551	882	888	583	771	40%	34%
Annuities	11	7	7	14	11	6	3	9	(36)%	(38)%
Protection	121	128	114	147	128	122	83	96	(35)%	(36)%
Poland, Italy, Spain and Other	1,306	1,108	741	954	1,267	1,179	837	1,206	26%	23%
Europe	2,398	1,960	1,468	1,921	2,512	2,307	1,846	2,333	21%	17%
Asia – excluding Malaysia & Sri Lanka	418	436	433	386	472	373	398	385	—	(2)%
Other business ³	13	17	49	13	4	3	21	30	131%	131%
Total life and pensions sales – excluding Malaysia & Sri Lanka	5,458	5,513	4,692	4,891	5,441	4,896	4,594	5,601	15%	13%
Malaysia & Sri Lanka	24	35	21	12	16	—	—	—	(100)%	(100)%
Total life and pensions sales	5,482	5,548	4,713	4,903	5,457	4,896	4,594	5,601	14%	12%

¹ Following the announced disposal of US Life in Q4 2012, it was no longer managed on a MCEV basis and it was no longer included in covered business. The sale of US Life was completed on 2 October 2013.

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.

E7 – Trend analysis of investment sales – cumulative

Investment sales ¹	1Q12 YTD £m	2Q12 YTD £m	3Q12 YTD £m	4Q12 YTD £m	1Q13 YTD £m	2Q13 YTD £m	3Q13 YTD £m	4Q13 YTD £m	Growth on 4Q12 YTD	
									Sterling %	Local currency %
United Kingdom & Ireland	432	823	1,269	1,730	305	841	1,494	2,040	18%	18%
Aviva Investors	479	1,043	2,038	2,727	787	1,563	2,100	2,683	(2)%	(5)%
Asia	38	68	93	129	42	94	124	152	18%	17%
Total investment sales	949	1,934	3,400	4,586	1,134	2,498	3,718	4,875	6%	4%

¹ Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E8 – Trend analysis of investment sales – discrete

Investment sales ¹	1Q12 Discrete £m	2Q12 Discrete £m	3Q12 Discrete £m	4Q12 Discrete £m	1Q13 Discrete £m	2Q13 Discrete £m	3Q13 Discrete £m	4Q13 Discrete £m	Growth on 4Q12	
									Sterling %	Local currency %
United Kingdom & Ireland	432	391	446	461	305	536	653	546	18%	18%
Aviva Investors	479	564	995	689	787	776	537	583	(15)%	(18)%
Asia	38	30	25	36	42	52	30	28	(22)%	(23)%
Total investment sales	949	985	1,466	1,186	1,134	1,364	1,220	1,157	(2)%	(4)%

¹ Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E9 – Geographical analysis of regular and single premiums – life and pensions sales

	Regular premiums							Single premiums		
	2013 £m	Local currency growth	WACF	Present value £m	2012 £m	WACF	Present value £m	2013 £m	2012 £m	Local currency growth
United Kingdom	783	2%	5.0	3,921	771	4.9	3,793	5,458	6,617	(18)%
Ireland	26	(24)%	4.4	114	33	3.8	127	355	505	(33)%
United Kingdom & Ireland	809	—	5.0	4,035	804	4.9	3,920	5,813	7,122	(19)%
France	89	16%	8.1	723	74	7.9	584	3,786	3,054	19%
Poland	38	3%	9.0	341	36	7.3	261	145	112	25%
Italy	51	(9)%	5.5	280	54	5.9	317	1,955	1,654	13%
Spain	52	(26)%	5.6	290	67	5.6	375	934	920	(3)%
Turkey	99	68%	4.7	467	62	3.9	242	57	70	(15)%
Other Europe	4	(83)%	1.5	6	24	4.6	110	14	48	(70)%
Europe	333	3%	6.3	2,107	317	6.0	1,889	6,891	5,858	13%
Asia – excluding Malaysia & Sri Lanka	284	6%	5.4	1,528	262	5.4	1,415	100	258	(62)%
Other	—	—	—	—	—	—	—	58	92	(37)%
Total life and pensions sales – excluding Malaysia & Sri Lanka	1,426	2%	5.4	7,670	1,383	5.2	7,224	12,862	13,330	(5)%
Malaysia & Sri Lanka	2	(90)%	4.0	8	20	3.4	67	8	25	(68)%
Total life and pensions sales	1,428	1%	5.4	7,678	1,403	5.2	7,291	12,870	13,355	(6)%

E10 – Geographical analysis of regular and single premiums – investment sales

Investment sales ¹	Regular			Single			PVNB
	2013 £m	2012 £m	Local currency growth	2013 £m	2012 £m	Local currency growth	Local currency growth
United Kingdom & Ireland	18	9	100%	2,022	1,721	17%	18%
Aviva Investors	5	5	—	2,678	2,722	(5)%	(5)%
Asia	—	—	—	152	129	17%	17%
Total investment sales	23	14	64%	4,852	4,572	4%	4%

¹ Investment sales are calculated as new single premiums plus the annualised value of new regular premiums.

E11 – 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	3Q13 YTD £m	4Q13 YTD £m	Growth on 4Q12 YTD	
									Sterling %	Local currency %
General insurance										
United Kingdom	974	2,087	3,091	4,062	923	1,963	2,904	3,823	(6)%	(6)%
Ireland	82	174	252	326	71	146	215	278	(15)%	(18)%
United Kingdom & Ireland	1,056	2,261	3,343	4,388	994	2,109	3,119	4,101	(7)%	(7)%
Europe	410	726	982	1,295	435	764	1,033	1,360	5%	1%
Canada	454	1,081	1,635	2,176	470	1,126	1,718	2,250	3%	5%
Asia	6	11	17	22	3	7	11	14	(36)%	(37)%
Other	40	51	53	67	20	20	21	33	(51)%	(51)%
	1,966	4,130	6,030	7,948	1,922	4,026	5,902	7,758	(2)%	(3)%
Health insurance										
United Kingdom	120	255	389	528	138	289	383	536	2%	2%
Ireland	40	57	76	102	36	52	71	99	(3)%	(7)%
United Kingdom & Ireland	160	312	465	630	174	341	454	635	1%	—
Europe	83	123	161	218	89	135	179	241	11%	6%
Asia	27	50	79	98	35	47	69	86	(12)%	(11)%
	270	485	705	946	298	523	702	962	2%	—
Total	2,236	4,615	6,735	8,894	2,220	4,549	6,604	8,720	(2)%	(2)%

E12 – 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	3Q13 Discrete £m	4Q13 Discrete £m	Growth on 4Q12	
									Sterling %	Local currency %
General insurance										
United Kingdom	974	1,113	1,004	971	923	1,040	941	919	(5)%	(5)%
Ireland	82	92	78	74	71	75	69	63	(15)%	(18)%
United Kingdom & Ireland	1,056	1,205	1,082	1,045	994	1,115	1,010	982	(6)%	(6)%
Europe	410	316	256	313	435	329	269	327	4%	1%
Canada	454	627	554	541	470	656	592	532	(2)%	—
Asia	6	5	6	5	3	4	4	3	(40)%	(40)%
Other	40	11	2	14	20	—	1	12	(14)%	(14)%
	1,966	2,164	1,900	1,918	1,922	2,104	1,876	1,856	(3)%	(3)%
Health insurance										
United Kingdom	120	135	134	139	138	151	94	153	10%	10%
Ireland	40	17	19	26	36	16	19	28	8%	3%
United Kingdom & Ireland	160	152	153	165	174	167	113	181	10%	9%
Europe	83	40	38	57	89	46	44	62	9%	4%
Asia	27	23	29	19	35	12	22	17	(11)%	(10)%
	270	215	220	241	298	225	179	260	8%	6%
Total	2,236	2,379	2,120	2,159	2,220	2,329	2,055	2,116	(2)%	(2)%

MCEV financial statements

In this section	Page
Consolidated financial statements	
Consolidated income statement – MCEV basis	134
Earnings per share – MCEV basis	135
Consolidated statement of comprehensive income – MCEV basis	135
Consolidated statement of changes in equity – MCEV basis	136
Consolidated statement of financial position – MCEV basis	137
Reconciliation of shareholders' equity on IFRS and MCEV bases	138
Reconciliation of IFRS total equity to Life MCEV	138
Reconciliation of IFRS total equity to Life MCEV net worth	139
Group MCEV analysis of earnings	140
Notes to the consolidated financial statements	
F1 Basis of preparation	141
F2 Development of MCEV	146
F3 Geographical analysis of Life MCEV earnings	148
F4 Geographical analysis of fund management operating earnings	152
F5 Other operations	152
F6 Integration and restructuring costs	152
F7 Exceptional items	152
F8 Analysis of life and pension earnings	153
F9 Operating capital generation	154
F10 Segmental analysis of life and related business embedded value	154
F11 Present value of life new business premiums	155
F12 Geographical analysis of value of new business	156
F13 Maturity profile of business	157
F14 Risk allowance within present value of in-force (VIF)	158
F15 Implied discount rates (IDR)	159
F16 Summary of non-controlling interest in life and related businesses' MCEV results	159
F17 Principal assumptions	160
F18 Sensitivity analysis	167

MCEV financial statements

Consolidated income statement – MCEV basis

For the year ended 31 December 2013

			2013 £m			Restated ¹ 2012 £m
	Continuing Operations	Discontinued ² Operations	Total	Continuing Operations	Discontinued ² Operations	Total
Operating profit/(loss) before tax attributable to shareholders' profits						
United Kingdom & Ireland	903	—	903	923	—	923
Europe	1,220	—	1,220	1,171	—	1,171
Asia	195	—	195	107	—	107
Other	(2)	—	(2)	5	—	5
United States ³	—	—	—	—	(378)	(378)
Long-term business for continuing operations (note F3)	2,316	—	2,316	2,206	(378)	1,828
United States ³	—	272	272	—	—	—
General insurance and health	797	—	797	894	—	894
Fund management ⁴ (note F4)	52	31	83	24	4	28
Other operations ⁵ (note F5)	(80)	(4)	(84)	(170)	(4)	(174)
Market operating profit/(loss)	3,085	299	3,384	2,954	(378)	2,576
Corporate centre	(150)	—	(150)	(136)	—	(136)
Group debt costs and other interest	(502)	(9)	(511)	(537)	(12)	(549)
Operating profit/(loss) before tax attributable to shareholders' profits (excluding Delta Lloyd as an associate)	2,433	290	2,723	2,281	(390)	1,891
Share of operating profit (before tax) of Delta Lloyd as an associate	—	—	—	112	—	112
Operating profit/(loss) before tax attributable to shareholders' profits	2,433	290	2,723	2,393	(390)	2,003
Integration and restructuring costs (note F6)	(354)	(3)	(357)	(464)	(3)	(467)
Operating profit/(loss) before tax attributable to shareholders' profits after integration and restructuring costs	2,079	287	2,366	1,929	(393)	1,536
Adjusted for the following:						
Economic variances on long-term business	1,820	452	2,272	1,901	(6)	1,895
Short-term fluctuation in return on investments on non-long-term business	(336)	—	(336)	7	—	7
Economic assumption changes on general insurance and health business	33	—	33	(21)	—	(21)
Impairment of goodwill	(86)	—	(86)	(154)	(782)	(936)
Amortisation and impairment of intangibles	(99)	(9)	(108)	(110)	(97)	(207)
Profit on the disposal and remeasurement of subsidiaries and associates ⁶	165	808	973	(1)	1,095	1,094
Exceptional items (note F7)	(256)	—	(256)	51	—	51
Non-operating items before tax (excluding Delta Lloyd as an associate)	1,241	1,251	2,492	1,673	210	1,883
Share of Delta Lloyd's non-operating items (before tax) as an associate	—	—	—	(523)	—	(523)
Non-operating items before tax	1,241	1,251	2,492	1,150	210	1,360
Share of Delta Lloyd's tax expense, as an associate	—	—	—	107	—	107
Profit/(loss) before tax attributable to shareholders' profits	3,320	1,538	4,858	3,186	(183)	3,003
Tax on operating profit	(813)	(83)	(896)	(780)	134	(646)
Tax on other activities	(347)	(182)	(529)	(516)	34	(482)
	(1,160)	(265)	(1,425)	(1,296)	168	(1,128)
Profit/(loss) for the year	2,160	1,273	3,433	1,890	(15)	1,875
Attributable to:						
Equity shareholders' of Aviva plc	1,631	1,273	2,904	1,035	(15)	1,020
Non-controlling Interest	529	—	529	855	—	855
	2,160	1,273	3,433	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 Discontinued operations represents the results of the US life and related internal asset management business (US Life) until the date of disposal (2 October 2013). For further details see F1 – Basis of Preparation.

3 From 1 January 2013 the US life operations, which were sold in October 2013, were reported within non-covered business on an IFRS basis as set out in F1 Basis of Preparation. In 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.

4 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 long-term businesses. These results, for continuing operations, are included within the long-term business MCEV operating earnings consistent with the MCEV methodology. In the comparative period, US operations are treated consistently with continuing operations. While in the current period, operating earnings for US fund management operations are included in this line item.

5 Excludes the proportion of the results of subsidiaries providing services to the long-term business. These results are included within the long-term MCEV operating earnings consistent with the MCEV methodology.

6 Includes profit in respect of disposal and remeasurement of held for sale operations to expected fair value less cost to sell. This includes profit or loss on completion of the sales of US business, Aseval, Ark Life, Russia, Romania pensions and Malaysia. In 2012, US business was classified as held for sale and remeasured to fair value less cost to sell, resulting in a profit of £1,095 million on MCEV basis. The profit of £808 million in 2013 reflects the actual sale price over remeasured value at the end of 2012. For further details see F17(d) – Principal assumptions.

Earnings per share – MCEV basis

For the year ended 31 December 2013

	2013 £m			Restated ¹ 2012 £m		
	Continuing Operations	Discontinued Operations ²	Total	Continuing Operations	Discontinued Operations ²	Total
Operating earnings/(losses) per share on an MCEV basis after tax, attributable to ordinary shareholders of Aviva plc						
Basic (pence per share)	45.0p	7.0p	52.0p	40.4p	(8.8)p	31.6p
Diluted ³ (pence per share)	44.4p	6.9p	51.3p	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)	52.5p	43.3p	95.8p	33.1p	(0.5)p	32.6p
Diluted ³ (pence per share)	51.8p	42.7p	94.5p	32.6p	(0.5)p	32.1p

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.² Discontinued operations represents the results of the US life and related internal asset management business (US Life) until the date of disposal (2 October 2013). For further details see 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 year ended 31 December 2013

	2013 £m	Restated ¹ 2012 £m
Profit for the year from continuing operations	2,160	1,890
Profit/(loss) for the year from discontinued operations²	1,273	(15)
Total profit for the year	3,433	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)
Foreign exchange rate movements	(12)	(145)
Aggregate tax effect – shareholders tax on items that may be reclassified	(6)	18
<i>Items that will not be reclassified to income statement</i>		
Remeasurement of pension schemes	(674)	(980)
Aggregate tax effect – shareholders tax on items that will not be reclassified	125	188
Other comprehensive income, net of tax from continuing operations	(567)	(926)
Other comprehensive income, net of tax from discontinued operations²	(319)	(14)
Total other comprehensive income, net of tax	(886)	(940)
Total comprehensive income for the year from continuing operations	1,593	964
Total comprehensive income for the year from discontinued operations²	954	(29)
Total comprehensive income for the year	2,547	935
Attributable to:		
Equity shareholders of Aviva plc	1,971	102
Non-controlling Interests	576	833
	2,547	935

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.² Discontinued operations represents the results of the US life and related internal asset management business (US Life) until the date of disposal (2 October 2013). For further details see F1 – Basis of Preparation.

Consolidated statement of changes in equity – MCEV basis

For the year ended 31 December 2013

	2013 £m	Restated ¹ 2012 £m
Balance at 1 January	16,230	15,495
Total comprehensive income for the year	2,547	935
Dividends and appropriations	(538)	(847)
Shares issued in lieu of dividends	—	127
Capital contributions from non-controlling interests	1	20
Share of dividends declared in the period applicable to non-controlling interests	(134)	(102)
Issue of fixed rate tier 1 notes	—	392
Transfer to (loss)/profit on disposal of subsidiaries, joint ventures and associates	(820)	187
Non-controlling interest in disposed subsidiaries	(491)	(13)
Shares acquired by employee trusts	(32)	(33)
Shares distributed by employee trusts	5	8
Reserves credit for equity compensation plans	37	42
Shares issued under equity compensation plans	—	1
Aggregate tax effect – shareholder tax	52	18
Total equity	16,857	16,230
Non-controlling interests	(2,166)	(2,214)
Balance at 31 December	14,691	14,016

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

Consolidated statement of financial position – MCEV basis

As at 31 December 2013

	2013 £m	Restated ¹ 2012 £m
Assets		
Goodwill	1,476	1,520
Acquired value of in-force business and other intangible assets	1,068	1,084
Additional value of in-force long-term business ²	5,840	4,870
Interest in, and loans to, joint ventures	1,200	1,390
Interest in, and loans to, associates	267	265
Property and equipment	313	391
Investment property	9,451	9,939
Loans	23,879	24,537
Financial investments	192,961	188,743
Reinsurance assets	7,220	6,684
Deferred tax assets	244	188
Current tax assets	76	67
Receivables	7,060	7,476
Deferred acquisition costs and other assets	3,051	3,778
Prepayments and accrued income	2,498	2,700
Cash and cash equivalents	24,999	23,102
Assets of operations classified as held for sale	3,113	42,603
Total assets	284,716	319,337
Equity³		
Capital		
Ordinary share capital	736	736
Preference share capital	200	200
	936	936
Capital reserves		
Share premium	1,165	1,165
Merger reserve	3,271	3,271
	4,436	4,436
Shares held by employee trusts	(31)	(32)
Other reserves ²	371	1,171
Retained earnings	2,348	1,389
Additional retained earnings on an MCEV basis ²	5,249	4,734
Equity attributable to shareholders of Aviva plc⁴	13,309	12,634
Direct capital instruments and fixed rate tier 1 notes	1,382	1,382
Non-controlling interests ²	2,166	2,214
Total equity	16,857	16,230
Liabilities		
Gross insurance liabilities	110,555	113,091
Gross liabilities for investment contracts	116,058	110,494
Unallocated divisible surplus	6,713	6,931
Net asset value attributable to unitholders	10,362	9,983
Provisions	984	1,119
Deferred tax liabilities	563	547
Current tax liabilities	116	112
Borrowings	7,819	8,179
Payables and other financial liabilities	9,194	9,398
Other liabilities	2,472	1,842
Liabilities of operations classified as held for sale	3,023	41,411
Total liabilities	267,859	303,107
Total equity and liabilities	284,716	319,337

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: representing the excess of the Life MCEV, including non-controlling interests, over the corresponding Life IFRS net assets as the additional value of in-force long-term business; and reflecting this excess within equity as additional retained profit on an MCEV basis and other reserves, with corresponding adjustments to non-controlling interests.

³ The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. Preference share capital is now included in capital.

⁴ The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. This line now represents equity attributable to all shareholders, including preference shareholders.

Reconciliation of shareholders' equity on IFRS and MCEV bases

As at 31 December 2013

	2013 £m			Restated ¹ 2012 £m		
	IFRS	Adjustment	MCEV	IFRS	Adjustment	MCEV
Share capital ²	936	—	936	936	—	936
Capital reserves	4,436	—	4,436	4,436	—	4,436
Shares held by employee trusts	(31)	—	(31)	(32)	—	(32)
Other reserves ³	475	(104)	371	1,675	(504)	1,171
Retained earnings	2,348	—	2,348	1,389	—	1,389
Additional retained earnings on an MCEV basis	—	5,249	5,249	—	4,734	4,734
Equity attributable to shareholders of Aviva plc⁴	8,164	5,145	13,309	8,404	4,230	12,634
Direct capital instruments and fixed rate tier 1 notes	1,382	—	1,382	1,382	—	1,382
Non-controlling Interests	1,471	695	2,166	1,574	640	2,214
Total equity	11,017	5,840	16,857	11,360	4,870	16,230

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

² The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. Preference share capital is now included in capital.

³ The adjustment to "Other reserves" relates to the movement in AFS securities.

⁴ The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. This line now represents equity attributable to all shareholders, including preference shareholders.

Reconciliation of IFRS total equity to Life MCEV

As at 31 December 2013

	2013 £m			Restated ¹ 2012 £m		
	Life and related businesses	General business and other	Group	Life and related businesses	General business and other	Group
Total assets included in the IFRS statement of financial position	248,851	30,025	278,876	285,412	29,055	314,467
Liabilities of the long-term business	(237,449)	—	(237,449)	(272,450)	—	(272,450)
Liabilities of the general insurance and other businesses	—	(30,410)	(30,410)	—	(30,657)	(30,657)
Total equity on an IFRS basis	11,402	(385)	11,017	12,962	(1,602)	11,360
Additional value of in-force long-term business	5,840	—	5,840	4,870	—	4,870
Total equity on a MCEV basis	17,242	(385)	16,857	17,832	(1,602)	16,230
Notional allocation of IAS 19 pension fund surplus to long-term business ²	(170)	—	—	(440)	—	—
Goodwill and intangible assets allocated to long-term business ³	(581)	—	—	(895)	—	—
Life MCEV (gross of non-controlling interests)	16,491			16,497		
Non-controlling interests	(1,501)			(1,556)		
Life MCEV (net of non-controlling interests)	14,990			14,941		

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

² The value of the Aviva Staff Pension Scheme surplus has been notionally allocated between segments, based on current funding. 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.

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 2013, there is an adjustment to impair goodwill and intangible assets by a further £28 million (2012: £94 million), compared to IFRS. In aggregate, the goodwill and intangibles on an MCEV basis is £125 million (2012: £94 million) lower than on an IFRS basis, allowing for exchange rate movements. Refer to the next table for goodwill allocated to long-term business on IFRS basis.

Reconciliation of IFRS total equity to Life MCEV net worth

As at 31 December 2013

	2013 £m	2012 £m
Net assets on a statutory IFRS net basis	11,017	11,360
Adjusting for general business and other net assets on a statutory IFRS net basis	385	1,602
Life and related businesses net assets on a statutory IFRS net basis	11,402	12,962
Goodwill and other intangibles	(706)	(989)
Acquired value of in-force business	(132)	(245)
Adjustment for share of joint ventures and associates	(7)	(9)
Adjustment for assets to regulatory value net of tax	(52)	94
Adjustment for DAC and DIR net of tax	(1,067)	(1,134)
Adjustment for differences in technical provisions	(337)	(488)
Other accounting and tax differences	825	940
Life MCEV net worth (gross of non-controlling interests)	9,926	11,131
MCEV value of in-force (gross of non-controlling interests) ¹	6,565	5,366
Life MCEV (gross of non-controlling interests)	16,491	16,497
Non-controlling interests	(1,501)	(1,556)
Life MCEV (net of non-controlling interests)	14,990	14,941

¹ Comprises PVFP of £9,040 million (2012:£8,616 million), FC of £(499) million (2012:£(569) million), CNHR of £(1,006) million (2012:£(1,381) million) and TVOG of £(970) million (2012:£(1,300) million).

Differences between the reconciling items for 2013 and 2012 arise mainly from the United States business which was disposed in October 2013. For 2012 comparatives, 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. The MCEV for the United States and other held for sale operations were at their expected fair value less cost to sell, which was adjusted in the MCEV value of in-force rather than the MCEV net worth. Operations that are held for sale at 31 December 2013 are treated similarly in the current period.

For both 2013 and 2012 figures, the adjustments for DAC and DIR and differences in technical provisions mainly relate to the UK & Ireland.

Group MCEV analysis of earnings

For the year ended 31 December 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
Net of tax & non-controlling interests 2013						
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	1,501	195	1,696	(80)	115	1,616
Non-operating MCEV earnings	671	149	820	468	617	1,288
Total MCEV earnings	2,172	344	2,516	388	732	2,904
Other movements in IFRS net equity	—	(585)	(585)	(285)	(870)	(870)
Capital and dividend flows	(601)	16	(585)	(711)	(695)	(1,296)
Foreign exchange variances	83	1	84	(147)	(146)	(63)
Acquired/divested business	(547)	(1,410)	(1,957)	1,957	547	—
Closing Group MCEV	14,990	599	15,589	(898)	(299)	14,691
Direct capital instruments and fixed rate tier 1 notes						(1,382)
Equity attributable to shareholders of Aviva plc on an MCEV basis⁶						13,309

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. Note that US Life, disposed in 2013, was 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 and disposed 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.

6 The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. This line now represents equity attributable to all shareholders, including preference shareholders.

	Covered business ^{2,3} £m A	Non-covered but related to life business ³ £m B	Total life business ⁴ £m A+B	Non-covered relating to non-life £m C	Total non-covered business ⁵ £m B+C	Total £m A+B+C
Net of tax & non-controlling interests (Restated¹ 2012)						
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
Direct capital instruments and fixed rate tier 1 notes						(1,382)
Equity attributable to shareholders of Aviva plc on an MCEV basis⁶						12,634

1 The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

2 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.

3 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.

4 Net assets for the total life businesses on an MCEV basis presented net of non-controlling interests.

5 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.

6 The presentation of equity has changed compared to that published in the 2012 MCEV Supplement. The new presentation is consistent with that used in the IFRS financial statements in the Group's Annual Report and Accounts 2013. This line now represents equity attributable to all shareholders, including preference shareholders.

F1 – Basis of preparation

The consolidated income statement and consolidated statement of financial position on pages 134 to 137 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, from this date MCEV was not used to manage the business due to the planned sale of the operation, which was completed on 2 October 2013.
- Guidance 17.4 requires that sensitivities are provided for the total MCEV results. However, the sensitivity analysis in note F18 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 note 5 of the IFRS financial statements in the Group's Annual Report and Accounts 2013, 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 2013 and 2012 report have been audited by our auditors, PriceWaterhouseCoopers LLP, who issued a qualified opinion, reflecting the stating of held for sale operations at their expected fair value less cost of sell, as mentioned above.

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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 and annuity business
- Managed pension fund business
- Equity release business in the UK

Business covered includes that written by our life insurance subsidiaries as well as our share of certain life and related business written in our associated undertakings and joint ventures. Consistent with the segments in our IFRS financial statements, health business written in Singapore is not classified as covered business, although treated as long-term business locally.

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. The sale of the US business completed on 2 October 2013
- Delta Lloyd in the current and comparative period. 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 was not included within covered business. For 'Group' MCEV reporting, which includes general insurance and other non-covered business, Delta Lloyd was included on an IFRS basis.

F1 – Basis of preparation continued

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 F17. 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 31 December 2013 of £45 million (31 December 2012: £175 million). 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 £45 million (31 December 2012: £175 million) 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 F18, 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.

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 from this date MCEV was not used to manage this business. For Group MCEV reporting, which includes general insurance and other non-covered business, the US operations were included prior to sale 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 sale price less cost to sell. The sale of the Aviva US business completed on 2 October 2013 and the transaction proceeds received were based on the estimated earnings and other improvements in statutory surplus over the period from 30 June 2012 to 30 September 2013. The final purchase price is subject to customary completion adjustments. The process to agree completion adjustments is on-going and is expected to complete by mid-2014. Until the outcome of this process is known there remains uncertainty on the final determination of the completion adjustment. We have recorded a profit on disposal of £808 million in 2013, calculated, reflecting management's best estimate of the expected proceeds. In the Group MCEV analysis of earnings, this is presented as a movement from non-covered but related to life business to non-covered relating to non-life business in the acquired/divested business line with no net impact on Group MCEV.

In line with IFRS, the results for the sold 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).

F1 – Basis of preparation continued

The expected existing business contribution (in excess of reference rate) is calculated using the start of period 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. Where gross results are presented, these have been calculated by grossing up post-tax results at the relevant 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%).

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.

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, where this is the biting constraint.

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 the comparative period.

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 F17.

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.

F1 – Basis of preparation continued

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 F17.

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.

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 the comparative period), French, Italian 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 the comparative period, 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 had been enacted for all business written from 2006 to 2012.

New business tax

New business for US (for the comparative period) and Italy has been valued on a basis with tax applied at the relevant corporation rate and consequential movements in the value of the associated deferred tax asset included as a variance within existing business operating return.

F1 – Basis of preparation continued

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 the comparative period 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.

Exchange rates

The Group's principal overseas operations during the period were located within the Eurozone, the US (for the comparative period) 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 F17.

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 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 statement for this period.
- A change in accounting requirement for consolidated financial statements (IFRS 10) resulting in a net decrease in both total assets and total liabilities on an IFRS basis of £1,222 million as at 31 December 2012 in the consolidated statement of financial position. There is no impact on profit or equity reported for the period ending 31 December 2012.
- 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 5 of the IFRS financial statements in the Group's Annual Report and Accounts 2013. The geographical analysis in MCEV is presented at a more aggregated level than the reportable operating segments.
- 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 IFRS financial statements in the Group's Annual Report and Accounts 2013. The adoption of the amendments to IAS 1 results in a revised presentation of the statement of comprehensive income.

F2 – Development of MCEV

The life covered MCEV (net of tax and minority interest) is £14,990 million, an increase of £1,107 million in the period from the adjusted opening MCEV of £13,883 million. This movement comprises total earnings of £2,172 million in the year, reduced by dividends and other capital flows from the covered business of £601 million and £547 million respectively. These flows reflect the transfer of part of our Spanish business to Bankia and disposal of other smaller ventures. These items were partially offset by a positive movement in 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.

Key indicators

	2013 £m			Restated 2012 £m
		Continuing operations	Discontinued operations	Total
Present value of new business premiums (gross tax, gross non-controlling interests)	20,548	20,646	4,039	24,685
New business margins (gross tax, gross non-controlling interests)	4.1%	3.6%	(6.9)%	1.9%
Value of new business	836	746	(280)	466
Expected returns	1,379	1,861	631	2,492
Experience variances	58	(78)	(170)	(248)
Operating assumption changes	(88)	(74)	(386)	(460)
Other operating variances	131	(249)	(173)	(422)
Operating earnings (gross tax, gross non-controlling interests)	2,316	2,206	(378)	1,828
Economic variances	1,820	1,901	(6)	1,895
Other non-operating variances	(322)	(42)	(3)	(45)
Non-operating earnings (gross tax, gross non-controlling interests)	1,498	1,859	(9)	1,850
New business surplus generation	(321)	(389)	(319)	(708)
Existing business surplus generation	1,530	1,615	360	1,975
Operating capital generation (net tax, net non-controlling interests)	1,209	1,226	41	1,267

Please note that all comparative figures quoted in the commentary below relate to restated 2012 results for continuing operations only.

Profitability (gross of tax and non-controlling interests)

Operating earnings for FY13 are £2,316 million (*FY12: £2,206 million*) and total MCEV earnings are £3,814 million (*FY12: £4,065 million*).

New Business

VNB has increased by 12% to £836 million (*FY12: £746 million*), primarily driven by France, Asia, UK and Ireland and Poland. In France, this is due to increased volume and a movement towards unit-linked products. The increase in Asia reflects expense efficiencies and an improved business mix. Increases in the UK, due to pricing actions taken in the second half of 2012 on the annuity book, and in Poland, primarily due to higher volumes, also contribute to the overall increase. New business volumes remained broadly neutral on a PVNBP basis, as higher sales across most European markets were offset by lower sales in the UK, however margins have improved significantly to 4.1% (*FY12: 3.6%*).

Expected Return

The total expected return was lower at £1,379 million (*FY12: £1,861 million*).

Expected return from existing business was £1,158 million (*FY12: £1,577 million*) and expected return on shareholders' net worth was £221 million (*FY12: £284 million*). 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 since the start of 2012 (which had an impact of £(220) million on expected return during 2013). 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 £(30) million (*FY12: £(152) million*). Experience variances have been predominantly positive across the Group, but have been more than offset by the negative impact of strengthening persistency assumptions. In the UK, the positive impact of expense assumption changes following expense savings over the year is partially offset by the negative impact in France due to strengthening the unit cost assumption.

Other operating variances of £131 million (*FY12: £(249) 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 ("GMDB") giving rise to an increase in operating profits.

F2 – Development of MCEV continued

Non-operating earnings

Non-operating earnings in the period were £1,498 million (*FY12: £1,859 million*).

Economic variances are £1,820 million (*FY12: £1,901 million*), due to favourable economic movements across most businesses particularly in the UK, France, Spain and Italy. In the UK positive variances arising due to narrowing credit spreads and asset out-performance have been partially offset by a reduction in the level of liquidity premium, adverse credit default experience on commercial mortgages and losses due to increases in the risk-free rate. In Italy, France and Spain positive economic variances have been driven by narrowing credit spreads.

Other non-operating variances are £(322) million (*FY12: £(42) million*), primarily driven by negative impacts in Poland, where the pension legislation change has reduced non-operating earnings by £344 million, and in France, due to the introduction of a dividend tax. These are partially offset by the allowance for the future drop in corporation tax in the UK from 23% to 20%.

Life Operating Capital Generation (OCG) (net of tax and non-controlling interests)

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.

Total Life OCG at FY13 is £1,209 million (*FY12: £1,226 million*).

New Business Strain

Investment in writing new business was £321 million (*FY12: £389 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 £160 million (*FY12: £155 million*) of required capital, which will be released over time, and £161 million (*FY12: £234 million*) of net worth strain, and has resulted in an increased value of future profits of £754 million (*FY12: £739 million*).

Expected Transfer to Free Surplus

Total Life expected free surplus generation is £1,234 million (*FY12: £1,189 million*).

The expected emergence of profits and run-off of required capital associated with the in-force portfolio contributed £1,217 million to OCG (*FY12: £1,133 million*). In addition, OCG benefits from the transfer to free surplus from the expected return on shareholders' net worth of £17 million (*FY12: £56 million*).

Management actions and other variances

In aggregate, experience variances, assumption changes and other operating variances contribute £296 million to OCG (*FY12: £426 million*).

The impact of experience variances and operating assumption changes on free surplus is small at £26 million (*FY12: £112 million*), with the impact of higher than expected project costs in the UK being more than offset by the positive impact of longevity assumption changes in the UK.

Other operating variances have a positive impact of £270 million (*FY12: £314 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. At FY13 this is primarily driven by the positive impact of reinsurance transactions in the UK and Singapore and the reduction of GMDB guarantees in France.

F3 – Geographical analysis of Life MCEV earnings

The table below presents the components of the life and pensions MCEV earnings. 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.

Gross of tax and non-controlling interests 2013	UK & Ireland £m	Europe £m	Asia £m	Other £m	Total £m
Value of new business	441	303	92	—	836
Earnings from existing business					
– expected existing business contribution (reference rate)	162	138	19	—	319
– expected existing business contribution (in excess of reference rate) ¹	270	547	22	—	839
	432	685	41	—	1,158
Experience Variances					
– maintenance expense	10	(19)	—	1	(8)
– project and other related expenses ²	(82)	(7)	4	—	(85)
– mortality/morbidity	32	6	9	1	48
– lapses ³	28	42	(5)	—	65
– other	15	16	7	—	38
	3	38	15	2	58
Operating assumption changes:					
– maintenance expense	157	(127)	27	(4)	53
– project and other related expenses	16	—	—	—	16
– mortality/morbidity	35	21	12	(1)	67
– lapses	(125)	(73)	(2)	—	(200)
– other ⁴	(61)	38	(1)	—	(24)
	22	(141)	36	(5)	(88)
Expected return on shareholders' net worth	84	122	14	1	221
Other operating variances	(79)	213	(3)	—	131
Operating earnings before tax and non-controlling interests	903	1,220	195	(2)	2,316
Economic variances ⁵					1,820
Other non-operating variances ⁵					(322)
Earnings before tax and non-controlling interests					3,814
Tax on operating earnings					(630)
Tax on other activities					(496)
Earnings after tax and before non-controlling interests					2,688

¹ The expected existing business contribution (in excess of reference rate) for Europe is lower at FY13 than FY12 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 has improved in most of our businesses reflecting a more stable economic outlook.

⁴ Other UK assumption changes reflect the change in the assumed level of non-hedgeable risks. In Europe other operating assumption changes relate to a reduction in the guaranteed annuity take up rate in Italy.

⁵ Please see F2 for further information on economic and non-operating variances. In 2013 the impact from any change in tax legislation is shown in other non-operating variances. For the comparative period the reduction in future UK tax rates was included in economic variances.

UK **maintenance expense operating assumption change** is primarily driven by the capitalisation of the benefit of recent expense reductions. In Europe the negative impact of expense assumption change relates primarily to France, following a review of expense allocation.

Positive **mortality/morbidity operating assumption changes** primarily reflect change to annuitant mortality assumptions in the UK.

Despite the positive experience variances due to short term provision releases in the UK, there is a negative impact from **lapse assumption changes**, primarily due to the strengthening of the assumptions on early retirement. The negative impact in Europe is a result of strengthening of long term persistency assumptions primarily in Poland.

Other operating variances include management actions taken to reduce guarantees on existing business in Italy and France. In the UK and Ireland this is due to management actions enhancing benefits to with-profits policyholders.

F3 – Geographical analysis of Life MCEV earnings continued

Gross of tax and non-controlling interests Restated 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 expense 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)
Operating earnings before tax and non-controlling interests	923	1,171	107	5	2,206	(378)	1,828
Economic variances ¹⁰					1,901	(6)	1,895
Other non-operating variances ¹⁰					(42)	(3)	(45)
Earnings before tax and non-controlling interests					4,065	(387)	3,678
Tax on operating earnings					(576)	132	(444)
Tax on other activities					(619)	4	(615)
Earnings after tax and before non-controlling interests					2,870	(251)	2,619

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.

¹⁰ Economic variances reflect narrowing credit spreads on corporate bonds and sovereign debt (Italy), reduction in interest rates and equity market improvements, partly offset by increasing credit spreads on commercial mortgages in the UK. Other non-operating variances reflect exceptional costs due to Project Simplify and Solvency II. Allowance for reduction in future UK tax rates increases economic variances by £140 million in 2012. In 2013, the impact from any change in tax legislation is shown in other non-operating variances.

F3 – Geographical analysis of Life MCEV earnings continued

Net of tax and non-controlling interests 2013	UK & Ireland £m	Europe £m	Asia £m	Other £m	Total £m
Value of new business	340	177	76	—	593
Earnings from existing business					
– expected existing business contribution (reference rate)	126	88	15	—	229
– expected existing business contribution (in excess of reference rate) ¹	209	265	17	—	491
	335	353	32	—	720
Experience variances					
– maintenance expense	8	(7)	—	1	2
– project and other related expenses ²	(63)	(5)	3	—	(65)
– mortality/morbidity	25	4	7	—	36
– lapses ³	22	23	(4)	—	41
– other	12	8	6	—	26
	4	23	12	1	40
Operating assumption changes:					
– maintenance expense ⁴	121	(73)	24	(2)	70
– project and other related expenses	12	—	—	—	12
– mortality/morbidity ⁵	27	14	9	(1)	49
– lapses ⁶	(96)	(42)	(2)	—	(140)
– other ⁷	(47)	18	(1)	—	(30)
	17	(83)	30	(3)	(39)
Expected return on shareholders' net worth	64	58	11	1	134
Other operating variances ⁸	(64)	119	(2)	—	53
Operating earnings after tax and non-controlling interests	696	647	159	(1)	1,501
Economic variances ⁹					868
Other non-operating variances ⁹					(197)
Earnings after tax and non-controlling interests					2,172

¹ The expected existing business contribution (in excess of reference rate) for Europe is lower at FY13 than FY12 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 has improved in most of our businesses reflecting a more stable economic outlook.

⁴ UK maintenance expense assumption change is primarily driven by the capitalisation of the benefit of recent expense reductions. In Europe the negative impact of expense assumption change relates primarily to France, following a review of expense allocation.

⁵ Positive mortality/morbidity operating assumption changes primarily reflect change to annuitant mortality assumptions in the UK.

⁶ Despite the positive experience variances due to short term provision releases in the UK, there is a negative impact from lapse assumption changes, primarily due to the strengthening of the assumptions on early retirement. The negative impact in Europe is a result of strengthening of long term persistency assumptions primarily in Poland.

⁷ Other UK assumption changes reflect the change in the assumed level of non-hedgeable risks. In Europe, other operating assumption changes relate to a reduction in the guaranteed annuity take up rate in Italy.

⁸ Other operating variances include management actions taken to reduce guarantees on existing business in Italy and France. In the UK and Ireland this is due to management actions enhancing benefits to with-profits policyholders.

⁹ Please see F2 for further information on economic and non-operating variances. In 2013 the impact from any change in tax legislation is shown in other non-operating variances. For the comparative period the reduction in future UK tax rates was included in economic variances.

F3 – Geographical analysis of Life MCEV earnings continued

Net of tax and non-controlling interests Restated 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)
Operating earnings after tax and non-controlling interests	696	532	84	4	1,316	(246)	1,070
Economic variances ¹⁰					753	(4)	749
Other non-operating variances ¹⁰					(35)	(1)	(36)
Earnings after tax and non-controlling interests					2,034	(251)	1,783

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.

¹⁰ Economic variances reflect narrowing credit spreads on corporate bonds and sovereign debt (Italy), reduction in interest rates and equity market improvements, partly offset by increasing credit spreads on commercial mortgages in the UK. Other non-operating variances reflect exceptional costs due to Project Simplify and Solvency II. Allowance for reduction in future UK tax rates increases economic variances by £106 million in 2012. In 2013, the impact from any change in tax legislation is shown in other non-operating variances.

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.

	2013 £m	Restated ¹ 2012 £m
Aviva Investors	27	12
United Kingdom	23	11
Asia	2	1
Total – continuing operations	52	24
Total – discontinued operations²	31	4
Total	83	28

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

² 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.

	2013 £m	Restated ¹ 2012 £m
United Kingdom & Ireland	(20)	(20)
Europe	(7)	(6)
Asia	(12)	(12)
Other operations ²	(41)	(132)
Total – continuing operations	(80)	(170)
Total – discontinued operations³	(4)	(4)
Total	(84)	(174)

¹ The income statement and other primary MCEV financial statements have been restated as set out in F1 Basis of Preparation.

² Other operations include Group and head office costs.

³ 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.

In 2013, we found evidence of improper allocation of trades in fixed income securities in Aviva Investors by two former employees. This occurred between 2006 – 2012. These breaches of our dealing policy involved late allocation of trades which favoured external hedge funds to the detriment of certain Aviva UK Life funds. The relevant regulatory authorities were notified at an early stage and have been kept fully apprised of the issue.

A thorough review of internal control processes relating to the dealing policy has been carried out by management and reviewed by PwC. Measures to improve controls have been implemented.

There is a total adverse impact on group operating profit from this activity of £132 million. This reflects the compensation of £126 million expected to be claimed in respect of these breaches and other associated costs of £6 million. These amounts are shown in operating profit in 'Other operations'.

Of this total, £96 million reflects the compensation expected to be claimed from, and other associated costs within, Aviva Investors. Compensation of £36 million relating to this matter is expected to be claimed from a group holding company.

Other operations also includes the Ireland pension scheme curtailment gain of £145 million.

F6 – Integration and restructuring costs

Integration and restructuring costs for continuing business during 2013 were £354 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 24% mainly due to transformation activity in UK and 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 £76 million (*FY12: £95 million*), as the project moves towards completion.

F7 – 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. Exceptional items related to continuing operations were £256 million negative (*FY12: £51 million positive*). This includes the reduction of £344 million in VIF as a result of changes in pension regulation in Poland, gross £119 million due to changes in taxation in France and gross £18 million due to changes in taxation in Italy, partially offset by a benefit of £225 million gross due to the reduction in corporation tax rate in the UK.

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 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	(321)	160	754	593
Expected existing business contribution (reference rate)	—	—	229	229
Expected existing business contribution (in excess of reference rate)	—	—	491	491
Expected return on shareholders' net worth	17	117	—	134
Transfers from VIF and required capital to the free surplus	1,217	(334)	(883)	—
Experience variances	(100)	130	10	40
Assumption changes	126	27	(192)	(39)
Other operating variances	270	200	(417)	53
	296	357	(599)	54
Operating MCEV earnings	1,209	300	(8)	1,501
Economic variances	(83)	11	940	868
Other non-operating variances ³	119	—	(316)	(197)
Total MCEV earnings	1,245	311	616	2,172
Capital & dividend flows ⁴	(597)	(4)	—	(601)
Foreign exchange variances	(4)	84	3	83
Acquired/divested business ⁵	(160)	(166)	(221)	(547)
Closing MCEV	2,310	6,551	6,129	14,990

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 are primarily driven by the impact of pension legislation changes in Poland as well as the impact of tax regulation changes in France and the UK.

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.

Net of tax and non-controlling interests 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
Expected return on shareholders' net worth	56	113	—	169	(7)	48	—	41	210
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)
Other operating variances	314	30	(487)	(143)	(8)	—	(104)	(112)	(255)
	426	(102)	(598)	(274)	(220)	53	(307)	(474)	(748)
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 – Operating capital generation

The operating capital generation is the free surplus component of the operating MCEV earnings (see note F8). The table below shows the operating capital generation for existing and new business.

Net of tax and non-controlling interests 2013	United Kingdom & Ireland £m	Europe £m	Asia & Other £m	Total £m
Existing business				
Transfer from VIF to net worth	358	448	77	883
Return on net worth	64	58	12	134
Impact of experience variances and assumption changes on net worth	521	61	71	653
Release of required capital to free surplus	(381)	210	31	(140)
Total existing business free surplus generation	562	777	191	1,530
New business				
Impact on net worth	(26)	(90)	(45)	(161)
Reduction in free surplus from required capital	43	(182)	(21)	(160)
Total new business free surplus generation	17	(272)	(66)	(321)
Total free surplus generation	579	505	125	1,209

Net of tax and non-controlling interests Restated 2012	United Kingdom & Ireland £m	Europe £m	Asia & Other £m	Total continuing operations £m	Total discontinued operations ¹ £m	Total £m
Existing business						
Transfer from VIF to net worth	364	451	72	887	212	1,099
Return on net worth	85	72	12	169	41	210
Impact of experience variances and assumption changes on net worth	194	72	58	324	(167)	157
Release of required capital to free surplus	67	126	42	235	274	509
Total existing business free surplus generation	710	721	184	1,615	360	1,975
New business						
Impact on net worth	(78)	(101)	(55)	(234)	(21)	(255)
Reduction in free surplus from required capital	41	(167)	(29)	(155)	(298)	(453)
Total new business free surplus generation	(37)	(268)	(84)	(389)	(319)	(708)
Total free surplus generation	673	453	100	1,226	41	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 overview section 1(ii) of this report, as it did not impact the actual capital generated in 2012.

F10 – Segmental analysis of life and related business embedded value

Net of tax and non-controlling interests £m	2013				Restated 2012				Movement in Total MCEV £m
	Free surplus £m	Required Capital ¹ £m	VIF £m	Total MCEV £m	Free surplus £m	Required Capital ¹ £m	VIF £m	Total MCEV £m	
United Kingdom	1,444	3,131	2,802	7,377	1,230	2,648	2,621	6,499	878
Ireland	131	165	370	666	96	246	480	822	(156)
United Kingdom & Ireland	1,575	3,296	3,172	8,043	1,326	2,894	3,101	7,321	722
France	227	2,213	1,231	3,671	80	2,106	984	3,170	501
Poland	202	111	969	1,282	161	113	1,282	1,556	(274)
Italy ^{2,3}	62	484	77	623	(42)	598	(172)	384	239
Spain ³	32	204	137	373	58	294	178	530	(157)
Other Europe	10	15	102	127	25	29	105	159	(32)
Europe	533	3,027	2,516	6,076	282	3,140	2,377	5,799	277
Asia	197	223	431	851	180	282	240	702	149
Other	5	5	10	20	38	10	13	61	(41)
Total – excluding United States	2,310	6,551	6,129	14,990	1,826	6,326	5,731	13,883	1,107
Total – United States					252	1,463	(657)	1,058	(1,058)
Total	2,310	6,551	6,129	14,990	2,078	7,789	5,074	14,941	49

¹ Required capital is shown net of implicit items permitted by local regulators to cover minimum solvency margins.

² At 31 December 2012, Italy had a positive free surplus on a statutory basis.

³ Required capital in Italy and Spain reflects the current economic environment and is in excess of regulatory requirements.

The required capital across our life businesses varies between 100% and 200% of EU minimum or equivalent (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 114% (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 31 December 2013 the aggregate regulatory requirements based on the EU minimum test amounted to £5.8 billion (FY12: £5.8 billion). At this date, the actual net worth held in our long-term business, was £8.9 billion (FY12: £9.9 billion) which represents 153% (FY12: 170%) of these minimum requirements.

F11 – 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 tax and non-controlling interests 2013	Regular premiums £m	WACF	Present value of regular premiums £m	Single premiums £m	Present value of new business premiums £m
United Kingdom	783	5.0	3,921	5,458	9,379
Ireland	26	4.4	114	355	469
United Kingdom & Ireland	809	5.0	4,035	5,813	9,848
France	89	8.1	723	3,786	4,509
Poland	38	9.0	341	145	486
Italy	51	5.5	280	1,955	2,235
Spain	52	5.6	290	934	1,224
Other Europe	103	4.6	473	71	544
Europe	333	6.3	2,107	6,891	8,998
Asia	286	5.4	1,536	108	1,644
Other	—	—	—	58	58
Total life and pensions	1,428	5.4	7,678	12,870	20,548

Gross of tax and non-controlling interests Restated 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.

F12 – 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 assumptions at the point of sale which have 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	
	2013 £m	Restated 2012 £m	2013 £m	Restated 2012 £m	2013 %	Restated 2012 %
Gross of tax and non-controlling interests						
United Kingdom	9,379	10,410	435	420	4.6%	4.0%
Ireland	469	632	6	(8)	1.3%	(1.3)%
United Kingdom & Ireland	9,848	11,042	441	412	4.5%	3.7%
France	4,509	3,638	166	119	3.7%	3.3%
Poland	486	373	51	35	10.5%	9.4%
Italy	2,235	1,971	15	29	0.7%	1.5%
Spain	1,224	1,295	33	56	2.7%	4.3%
Other Europe	544	471	38	32	7.0%	6.8%
Europe	8,998	7,748	303	271	3.4%	3.5%
Asia	1,644	1,765	92	63	5.6%	3.6%
Other	58	91	—	—	0.0%	0.0%
Total life and pensions – continuing operations	20,548	20,646	836	746	4.1%	3.6%
Total life and pensions – discontinued operations¹		4,039		(280)		(6.9)%
Total life and pensions	20,548	24,685	836	466	4.1%	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	
	2013 £m	Restated 2012 £m	2013 £m	Restated 2012 £m	2013 %	Restated 2012 %
Net of tax and non-controlling interests						
United Kingdom	9,379	10,410	335	319	3.6%	3.1%
Ireland	448	474	5	(6)	1.1%	(1.3)%
United Kingdom & Ireland	9,827	10,884	340	313	3.5%	2.9%
France	3,788	2,996	96	67	2.5%	2.2%
Poland	440	339	38	26	8.6%	7.7%
Italy	933	841	4	8	0.4%	1.0%
Spain	689	719	9	15	1.3%	2.1%
Other Europe	544	470	30	26	5.5%	5.5%
Europe	6,394	5,365	177	142	2.8%	2.6%
Asia	1,643	1,748	76	50	4.6%	2.9%
Other	58	91	—	—	0.0%	0.0%
Total life and pensions – continuing operations	17,922	18,088	593	505	3.3%	2.8%
Total life and pensions – discontinued operations¹		4,039		(182)		(4.5)%
Total life and pensions	17,922	22,127	593	323	3.3%	1.5%

¹ Prior period represents the results of the United States.

F13 – Maturity profile of business

(a) Total in-force business

To show the discounted 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 interests 31 December 2013 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	539	875	628	286	844	3,172
Europe	979	673	401	223	240	2,516
Asia and Other	212	93	74	31	31	441
Total	1,730	1,641	1,103	540	1,115	6,129

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

Net of non-controlling interests 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 discounted 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 interests 31 December 2013 £m	0-5 ¹	6-10	11-15	16-20	20+	Total
United Kingdom & Ireland	89	64	45	32	136	366
Europe	97	69	41	28	32	267
Asia and Other	73	25	12	5	6	121
Total	259	158	98	65	174	754

¹ For held for sale operations, the VIF emergence is reported in the 0-5 column.

Net of non-controlling interests 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 – 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 interests 31 December 2013 £m	PVFP £m	Frictional costs £m	Non- hedgeable risks £m	Time value of financial options and guarantees £m	VIF £m
United Kingdom	3,565	(249)	(458)	(56)	2,802
Ireland	395	(7)	(18)	—	370
United Kingdom & Ireland	3,960	(256)	(476)	(56)	3,172
France	2,300	(155)	(212)	(702)	1,231
Poland	1,150	(9)	(111)	(61)	969
Italy	142	(10)	(30)	(25)	77
Spain	177	(9)	(25)	(6)	137
Other Europe	104	(1)	(1)	—	102
Europe	3,873	(184)	(379)	(794)	2,516
Asia	564	(31)	(73)	(29)	431
Other	11	—	(1)	—	10
Total	8,408	(471)	(929)	(879)	6,129

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 £65 million primarily due to economic movements in France.
- The allowance for non-hedgeable risks has become less negative by £165 million, primarily in Poland, due to the pension legislation change in Poland which has reduced the allowance for future legislation risk, given the lower value now at risk.
- The Time Value of Options and Guarantees has become less negative by £25 million, although this is the aggregate of a number of significant positive and negative changes. In particular, the value has become less negative due to management actions in the European businesses and favourable economics in Asia. This is partially offset by the impact of pensions legislation change in Poland, which has increased the volatility of future management charges.

Net of non-controlling interests Restated 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

F15 – 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.

	31 December 2013 %	Restated 31 December 2012 %
United Kingdom	6.8%	7.2%
Ireland ¹	1.9%	1.9%
United Kingdom & Ireland	6.4%	6.4%
France	7.0%	6.7%
Poland	6.3%	5.2%
Italy ^{1,2,3}	4.3%	14.9%
Spain ¹	8.4%	12.9%
Other Europe ¹	9.8%	6.5%
Europe	6.5%	8.0%
Asia ¹	4.9%	5.6%
Other	—	—
Total – excluding United States¹	6.4%	7.2%
Total – United States^{1,4}	n/a	n/a
Total	6.4%	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 The 2012 IDR for Italy has been amended since FY12 from 13.4% to 14.9% to reflect a correction in the real world investment return assumptions. The revised FY12 IDR has been used to determine the expected existing business contribution (in excess of the reference rate) for 2013 in the analysis of life MCEV earnings

³ The IDR for Italy has decreased since FY12 following significant narrowing of government bond spreads and increases in risk-free rates, which has reduced substantially the difference between the risk-free and real-world returns.

⁴ Where there is a 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.

F16 – Summary of non-controlling interest in life and related businesses' MCEV results

31 December 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	—	13	14	6	4	—	37	593	630
Life MCEV operating (loss)/earnings after tax	—	(2)	26	147	14	—	185	1,501	1,686
Life MCEV (loss)/earnings after tax	—	(6)	149	412	(39)	—	516	2,172	2,688
Closing covered businesses' embedded value	—	281	311	741	166	2	1,501	14,990	16,491

31 December 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 (comparative period only).

F17 – 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	2013	2012	2011
Reference Rate			
1 year	0.6%	0.6%	1.2%
5 years	2.2%	1.0%	1.6%
10 years	3.1%	1.9%	2.3%
15 years	3.5%	2.6%	2.8%
20 years	3.6%	2.9%	3.0%
Expense inflation	3.4%	2.8%	2.8%

Eurozone	2013	2012	2011
Reference Rate			
1 year	0.4%	0.3%	1.4%
5 years	1.3%	0.8%	1.7%
10 years	2.2%	1.6%	2.4%
15 years	2.7%	2.1%	2.8%
20 years	2.9%	2.3%	2.8%
Expense inflation ¹	2.5%	2.5%	2.5%

¹ Based on France, the largest Eurozone business.

Poland	2013	2012	2011
Reference Rate			
1 year	2.7%	3.4%	4.9%
5 years	3.7%	3.4%	4.8%
10 years	4.3%	3.5%	5.0%
15 years	4.4%	3.4%	4.7%
20 years	4.3%	3.2%	4.3%
Expense inflation	3.8%	2.1%	2.9%

United States	2013	2012	2011
Reference Rate			
1 year	n/a	0.3%	0.7%
5 years	n/a	0.9%	1.2%
10 years	n/a	1.9%	2.1%
15 years	n/a	2.4%	2.5%
20 years	n/a	2.7%	2.6%
Expense inflation	n/a	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 (comparative period only).

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
	4Q 2013	3Q 2013	2Q 2013	1Q 2013	4Q 2012	3Q 2012	2Q 2012	1Q 2012	2013	2012
UK immediate annuities ¹	1.06%	1.17%	1.21%	1.24%	1.19%	1.49%	1.46%	1.34%	1.07%	1.30%
UK bulk purchase annuities ¹	1.06%	1.17%	1.21%	1.24%	1.19%	1.49%	1.46%	1.34%	1.07%	1.30%
Ireland immediate annuities	0.08%	0.10%	0.10%	0.11%	n/a	n/a	n/a	n/a	0.07%	n/a
France	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.28%	0.44%
Spain	0.09%	0.19%	0.23%	0.17%	0.13%	0.09%	0.28%	0.35%	0.18%	0.30%
US immediate annuities	n/a	n/a	n/a	n/a	0.83%	0.95%	1.00%	1.26%	n/a	0.91%
US deferred annuities and all other contracts	n/a	n/a	n/a	n/a	0.70%	0.81%	0.84%	1.07%	n/a	0.77%

¹ An additional provision of £250 million (FY12: £150 million) has been set aside by the UK due to the uncertainty in their estimation of future liquidity premium on mark to model assets (commercial, healthcare and equity release mortgages). This additional provision reduces total MCEV only.

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).

F17 – 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	2013	2012	2011
Equity risk premium	3.5%	3.5%	3.5%
Property risk premium	2.0%	2.0%	2.0%

Future returns on fixed interest investments are calculated from prospective yields less an adjustment for credit risk; this includes an adjustment for credit risk on all Eurozone sovereign debt.

Required capital and tax

	Tax rates ¹			Required capital (% EU minimum or equivalent)	
	2013	2012	2011	2013	2012
United Kingdom ²	20.0%	23.0%	25.0%	100%/200%	100%/200%
Ireland ³	12.5%	12.5%	12.5%	180.0%	174%/180%
France	34.4%	34.4%	34.4%	107.5%	107.5%
United States	n/a	35.0%	35.0%	n/a	325%
Spain ⁴	30.0%	30.0%	30.0%	188.1%	177%
Italy ⁵	34.3%	34.3%	34.3%	191.7%	243%
Poland	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.

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 the comparative period 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 (123%-134% 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 was 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 31 December 2013, increasing net MCEV by £173 million.

In France a 3% dividend distribution tax was introduced with effect from 17 August 2012. This applies to the distributions of profits from Aviva France to its Aviva parent company in the UK. A provision has been included in the Group MCEV net assets at 31 December 2013 and results in a reduction in net assets of £74 million.

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. In the UK shareholder transfers from the New With-Profit Sub Fund (NWPSF) will cease after 2016, with these transfers being directed into the RIEESA from that date. This will accelerate the release of the RIEESA which will be a source of future shareholder returns.

F17 – 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 provided by 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 options 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. For most business, the model is calibrated to at-the-money options of a variety of terms; the exception is the model in Poland which uses a fixed volatility based on historic data, given the lack of a deep and liquid market for options in Poland. 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 (comparative period only), the most important assets are fixed rate bonds of various durations. For Poland the most significant asset class is equity.

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	2013 Swap length				2012 Swap length			
	10 years	15 years	20 years	25 years	10 years	15 years	20 years	25 years
UK Sterling								
10 years	16.3%	16.0%	15.5%	15.2%	17.1%	16.4%	16.0%	15.7%
15 years	15.4%	14.9%	14.2%	13.8%	15.2%	14.8%	14.2%	13.9%
20 years	15.1%	14.3%	13.5%	13.0%	14.8%	14.1%	13.4%	13.1%
25 years	14.9%	14.2%	13.2%	12.5%	14.9%	14.1%	13.5%	13.1%
Euro								
10 years	23.3%	22.3%	21.7%	21.1%	24.6%	24.0%	23.5%	23.1%
15 years	23.3%	21.5%	20.2%	19.3%	25.5%	24.2%	22.7%	21.8%
20 years	23.0%	20.3%	18.4%	17.5%	25.7%	23.0%	20.9%	20.1%
25 years	21.8%	18.7%	16.9%	15.9%	23.6%	20.5%	18.8%	18.2%
US dollar								
10 years	n/a	n/a	n/a	n/a	23.0%	21.6%	21.2%	21.5%
15 years	n/a	n/a	n/a	n/a	21.9%	20.1%	20.1%	20.8%
20 years	n/a	n/a	n/a	n/a	20.4%	19.0%	18.8%	19.4%
25 years	n/a	n/a	n/a	n/a	20.4%	20.0%	20.4%	20.9%
Poland Zloty¹								
10 years	19.2%	19.0%	18.6%	18.1%	n/a	n/a	n/a	n/a
15 years	16.6%	16.3%	15.8%	15.2%	n/a	n/a	n/a	n/a
20 years	15.1%	14.7%	14.2%	13.6%	n/a	n/a	n/a	n/a
25 years	13.8%	13.3%	12.8%	12.3%	n/a	n/a	n/a	n/a

¹ Based on implied volatilities from modeled returns.

F17 – 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, except for Poland as noted above. The following table sets out the equity implied volatilities.

Option length	2013						
	UK	Ireland	France	US	Spain	Italy	Poland
5 years	18.9%	20.1%	20.1%	n/a	23.4%	20.1%	30.0%
10 years	22.1%	20.6%	20.6%	n/a	24.1%	20.6%	30.0%
15 years	22.4%	21.4%	21.4%	n/a	24.7%	21.4%	30.0%

Option length	2012						
	UK	Ireland	France	US	Spain	Italy	Poland
5 years	23.4%	24.6%	24.6%	23.9%	27.4%	24.6%	n/a
10 years	26.3%	24.7%	24.7%	26.6%	28.0%	24.7%	n/a
15 years	26.8%	25.0%	25.0%	27.7%	28.2%	25.0%	n/a

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 31 December 2013 (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.

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, although in a number of start-up operations an allowance is made for the spreading of fixed costs over a larger volume of business.

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 legislation change

During 2013 a review of the Pillar II Pensions system (OFE) was carried out and on 4 September 2013, the Polish government announced a preferred option to change the system, with the draft law being published on 10 October 2013. The changes are significant and in summary involve the transfer of over 50% of existing pensions assets to the state system along with an additional gradual transfer 10 years before retirement; in addition new premiums will be credited to the state system unless pension scheme members specifically state otherwise.

The document enacting the law was signed by the President on 27 December 2013 and became law on 1 February 2014. Given the scale of the changes, the impact on the value of the Poland pensions business is significant, reducing the value in force by £236 million (net of tax and minority interests), based on an assumption of 70% of existing customers directing future premiums to the state system. The impact is less than had been initially estimated as the final legislation did not restrict the level of management charges to be applied to the funds, as had been initially expected.

F17 – Principal assumptions continued

Non-hedgeable risk

For the balance sheet and operating profit, a charge of 3.9% (FY 12: 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 FY 12 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, sold operations and other disposals

During 2013, certain life covered operations were either sold or 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 were classified as held for sale. Following this, the 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 was no longer included within the covered business.

The sale of the Aviva US business completed on 2 October 2013 and the transaction proceeds received were based on the estimated earnings and other improvements in the statutory surplus over the period from 30 June 2012 to 30 September 2013. The final purchase price is subject to customary completion adjustments. The process to agree completion adjustments is on-going and is expected to complete by mid-2014. Until the outcome of this process is known there remains uncertainty on the final determination of the completion adjustment. We have recorded a profit on disposal of £808 million in 2013, calculated, reflecting management's best estimate of the expected proceeds.

The profit on disposal is calculated as the excess of the expected net cash consideration (£877 million) plus the currency translation and investment valuation reserves recycled to the income statement on completion (£644 million) over and above the IFRS net assets (£713 million).

Please refer to F1 - Basis of Preparation and Note 4 of the IFRS financial statements in the Group's Annual report and accounts 2013, for further details on this remeasurement and presentation.

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 £89 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.

F17 – Principal assumptions continued

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 re-measured to fair value less cost to sell resulting in a decrease to the closing MCEV at 31 December 2013 of £7 million.

Korean long-term business

During 2013, the Group’s Korean joint venture business, Woori Aviva Life Insurance (“WALI”), was classified as held for sale following the decision of management to seek to dispose of the business. Following classification as held for sale, WALI, included within the “Asia” operating segment, was remeasured to fair value less cost to sell, resulting in an increase to the closing MCEV at 31 December 2013 of £48 million.

Indonesian long-term business

During 2013, the Group’s 60% stake in the Indonesian business “Aviva Indonesia” has been classified as held for sale with the intention to structure the business as a joint venture where Aviva’s ownership is 50%. Following classification as held for sale, Aviva Indonesia was remeasured to fair value less cost to sell, resulting in an increase to the closing MCEV at 31 December 2013 of £4 million.

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 2013 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.

Poland joint venture

On 20 December 2013, Aviva transferred a portion of its holdings in BZ WBK-Aviva Towarzystwo Ubezpieczeni na Zyciz S.A. and BZ WBIK-Aviva Towarzystwo Ubezpieczeni Ogólnych S.A. to Bank Zachodni WBK S.A., its partner in these operations. Prior to this transfer, Aviva owned 50% of these operations, with the transfer leaving Aviva with 34% share. This is reflected as a decrease in the closing MCEV at 31 December 2013 of £3 million.

F17 – Principal assumptions continued**(e) Other assumptions****Valuation of debt**

Borrowings in the MCEV consolidated statement of financial position are valued on an IFRS basis, consistent with the IFRS financial statements in the Group's Annual Report and Accounts 2013. At 31 December 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 £7,573 million (31 December 2012: £7,260 million).

	2013 £m	2012 £m
Borrowings per summarised consolidated statement of financial position – MCEV basis	7,819	8,179
Add: Amount included in held for sale	29	145
Less: Securitised mortgage funding	(1,313)	(1,332)
Borrowings excluding non-recourse funding – MCEV basis	6,535	6,992
Less: Operational financing by businesses	(1,410)	(1,853)
External debt and subordinated debt – MCEV basis	5,125	5,139
Add: Preference shares (including General Accident plc), direct capital instrument and fixed rate tier 1 notes	1,832	1,832
External debt, subordinated debt, preference shares, direct capital instrument and fixed tier 1 notes – MCEV basis	6,957	6,971
Effect of marking these instruments to market	616	289
Market value of external debt, subordinated debt, preference shares, direct capital instrument and fixed rate tier 1 notes	7,573	7,260

Exchange rates

The Group's principal overseas operations during the period were located within the Eurozone, US (for comparative period) 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:

	2013	2012
Eurozone		
Average rate (€1 equals)	£0.85	£0.81
Period end rate (€1 equals)	£0.83	£0.81
Poland		
Average rate (PLN1 equals)	£0.20	£0.19
Period end rate (PLN1 equals)	£0.20	£0.20
United States		
Average rate (\$US1 equals)	£0.64	£0.63
Period end rate (\$US1 equals)	£0.60	£0.62

F18 – 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

2013 Embedded value (net of non-controlling interests)	As reported in F10 £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	8,043	235	(265)	280	(5)
France	3,671	5	65	(255)	(145)
Poland, Italy, Spain and Other Europe	2,405	5	(55)	65	—
Asia and Other	871	—	30	(60)	—
Total	14,990	245	(225)	30	(150)

2013 Embedded value (net of non-controlling interests)	As reported in F10 £m	Equity/Property		Credit Spread			EU minimum capital or equivalent £m
		10% increase in Market values £m	10% decrease in Market values £m	Volatility 25% increase £m	50bps increase £m	50bps decrease £m	
United Kingdom & Ireland	8,043	225	(235)	(80)	(1,015)	1,100	—
France	3,671	245	(255)	(130)	(40)	40	25
Poland, Italy, Spain and Other Europe	2,405	25	(25)	(15)	(30)	35	5
Asia and Other	871	15	(15)	—	(20)	20	10
Total	14,990	510	(530)	(225)	(1,105)	1,195	40

F18 – Sensitivity analysis continued

New business

2013 Value of new business (net of tax and non-controlling interests)	As reported in F12 £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	340	18	(11)	14	—
France	96	—	4	(13)	(5)
Poland, Italy, Spain and Other Europe	81	—	(4)	3	—
Asia and Other	76	—	12	(16)	—
Total	593	18	1	(12)	(5)

2013 Value of new business (net of tax and non-controlling interests)	As reported in F12 £m	Equity/Property			Credit Spread		
		10% increase in Market values £m	10% decrease in Market values £m	Volatility 25% increase £m	50bps increase £m	50bps decrease £m	EU minimum capital or equivalent £m
United Kingdom & Ireland	340	—	—	—	(75)	81	—
France	96	8	(6)	(1)	(3)	1	—
Poland, Italy, Spain and Other Europe	81	—	—	—	(1)	1	1
Asia and Other	76	—	—	—	—	—	2
Total	593	8	(6)	(1)	(79)	83	3

(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

2013 Embedded value (net of non-controlling interests)	As reported in F10 £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	8,043	210	60	65	(380)
France	3,671	100	35	25	(25)
Poland, Italy, Spain and Other Europe	2,405	40	95	20	—
Asia and Other	871	30	15	5	—
Total	14,990	380	205	115	(405)

New Business

2013 Value of new business (net of tax and non-controlling interests)	As reported in F12 £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	340	32	13	4	(16)
France	96	3	3	1	—
Poland, Italy, Spain and Other Europe	81	4	10	3	—
Asia and Other	76	6	4	1	—
Total	593	45	30	9	(16)

Other information

In this section	Page
Glossary	170
Shareholder services	174

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.

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.

Group pension

A pension plan that covers a group of people, which is typically purchased by a company and offered to their employees.

Health insurance

Provides cover against loss from illness or bodily injury. Can pay for medicine, visits to the doctor, hospital stays, other medical expenses and loss of earnings, depending on the conditions covered and the benefits and choices of treatment available on the policy.

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).

Individual savings account (ISAs)

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)

A 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.

Collective investment scheme (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

Annual premium equivalent (APE)

Used as a measure of annual sales, taking the annual premium of regular premium contracts plus 10% of single premium contracts.

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.

Combined operating ratio (COR)

COR is calculated as incurred claims expressed as a percentage of net earned premiums, plus written commissions and written expenses expressed as a percentage of net written premiums.

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.

Financial Conduct Authority (FCA)

One of the two bodies (along with the PRA) which replaced the Financial Services Authority from 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.

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 under the FCA, to give advice on financial matters and to sell the products of all financial service providers.

Internal rate of return (IRR)

A discount rate used to measure profitability. The rate used is that which will bring a series of cash flows to a net present value of nil.

International financial reporting standards (IFRS)

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

This is also referred to as adjusted operating profit or operating profit (IFRS basis). It is based on expected investment returns, and stated before tax and before non-operating items including, impairment of goodwill, exceptional and other items.

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, less premiums paid over or 'ceded' to reinsurers.

New business strain (NBS)

The name given to the initial impact on shareholders' net assets when an insurance contract is sold. This "strain" arises because, in addition to meeting costs associated with the sale of contracts, insurance companies must meet capital and reserving requirements at the outset of a contract that are often significantly higher than the premiums received.

Present value of new business (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.

Prudential Regulatory Authority (PRA)

One of the two bodies (along with the FCA) which replaced the Financial Services Authority from 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.

Solvency II

These are insurance regulations designed to harmonise EU insurance regulation. Primarily this concerns the amount of capital that European insurance companies must hold under a measure of capital and risk. Solvency II is due to become effective from 1 January 2016.

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.

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.

Value of new business (VNB)

VNB is the present value of future profits from new business written at the point of sale. It is calculated on a market consistent basis using economic assumptions set at the start of each quarter and the same operating assumptions as those used to determine the embedded value at the end of the reporting period and is stated after the effect of any frictional costs. Unless otherwise stated, it is quoted net of tax and minority interests.

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.

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 such as 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.

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.

Real world equivalent Embedded Value (EqEV)

As for other embedded value measures, EqEV is a way of measuring the current value to shareholders of the in-force portfolio of a life and pensions business. EqEV includes the value of future profits and uses a set of realistic assumptions, including real world expected investment returns, allowing for the impact of the uncertainty in these returns in the risk discount rate.

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 for the comparative period, 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.

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.

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 for the comparative period, 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.

Shareholder services

Shareholder profile as at 31 December 2013

By category of shareholder	Number of shareholders	% *	Number of shares	% *
Individual	548,969	97.03	264,080,246	8.96
Banks and nominee companies	14,031	2.48	2,631,081,144	89.28
Pension fund managers and insurance companies	221	0.04	1,107,028	0.04
Other corporate bodies	2,573	0.45	50,671,204	1.72
Total	565,794	100	2,946,939,622	100

By size of shareholding	Number of shareholders	% *	Number of shares	% *
1–1,000	510,676	90.26	141,776,379	4.81
1,001–5,000	48,894	8.64	93,490,932	3.17
5,001–10,000	3,524	0.62	24,602,884	0.84
10,001–250,000	2,166	0.38	89,126,377	3.02
250,001–500,000	144	0.03	52,216,902	1.77
500,001 and above	389	0.07	2,524,576,690	85.67
American Depositary Receipts (ADRs)*	1	0.00	21,149,458	0.72
Total	565,794	100	2,946,939,622	100

+ The number of registered ordinary shares represented by ADRs. Please note that each Aviva ADR represents two (2) ordinary shares.

* Percentages do not necessarily add up due to rounding.

2014 financial calendar

Annual General Meeting	30 April 2014
Announcement of first quarter Interim Management Statement	15 May 2014
Announcement of unaudited half-year results	7 August 2014
Announcement of third quarter Interim Management Statement	30 October 2014

2013 final dividend dates – ordinary shares

Ex-dividend date	2 April 2014
Record date	4 April 2014
Last day for Dividend Reinvestment Plan election	24 April 2014
Dividend payment date *	16 May 2014

* Please note that the ADR local payment date will be approximately five business days after the proposed dividend date for ordinary shares.

Annual General Meeting (AGM)

- The 2014 AGM will be held at The QEII Conference Centre, Broad Sanctuary, Westminster, London SW1P 3EE on Wednesday, 30 April 2014 at 11am.
- Details of each resolution to be considered at the meeting are provided in the Notice of AGM, which is available on the Company's website at www.aviva.com/agm.
- Shareholders can vote electronically at www.investorcentre.co.uk/eproxy, in person by attending the meeting, or by completing and returning the relevant voting card(s) by post.
- The voting results for the 2014 AGM will be accessible on the Company's website at www.aviva.com/agm shortly after the meeting.
- If you are unable to attend the AGM but would like to ask the directors a question in connection with the business of the meeting, you can do so by sending a question to the group company secretary by email to aviva.shareholders@aviva.com. We will endeavour to provide you with a response as soon as possible.

AGM voting instructions

- Completed proxy instructions must be submitted to the Company's Registrar, Computershare Investor Services PLC (Computershare), as soon as possible, but in any event to arrive by no later than:
 - Monday, 28 April 2014 at 11am for ordinary shareholders; and
 - Friday, 25 April 2014 at 11am for members of the Aviva Share Account, participants in the Vested Share Account and the Aviva All Employee Share Ownership Plan.

Dividends

- 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 final 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.
- The Company has decided to introduce a Dividend Reinvestment Plan. The plan provides the option for eligible shareholders to reinvest their cash dividend in additional ordinary shares in the Company. For further information please visit www.aviva.com/ecomms. Completed application forms should be sent to the Company's Registrar, Computershare, by no later than 5pm on Thursday, 24 April 2014.

Direct credit of dividend payments

- If you would like to have your cash dividends paid directly into your bank or building society account, or if you would like to have your dividends reinvested please visit www.aviva.com/dividends for more information or contact 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.

Manage your holdings online

You can view and manage your shareholding online by visiting www.aviva.com/ecomms. To log in you will require your 11 digit Shareholder Reference Number (SRN), which you will find on your proxy or voting card, latest dividend stationery, or any share certificate issued since 4 July 2011.

Shareholders can also elect to receive electronic communications by registering their email address online, or by contacting Computershare directly. Making this election will save on printing and distribution costs and has environmental benefits.

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 and Electronic Voting

www.aviva.com/agm

www.investorcentre.co.uk/eproxy

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

Aviva reports information

www.aviva.com/reports

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 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 the US.

(Lines are open from 8.30am to 6pm, 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