

Notes on the EEV basis results

1 Basis of preparation, methodology and accounting presentation

The EEV basis results have been prepared in accordance with the EEV Principles issued by the European Insurance CFO Forum in May 2004 and expanded by the Additional Guidance on EEV disclosures published in October 2005. Where appropriate, the EEV basis results include the effects of adoption of International Financial Reporting Standards (IFRS).

The directors are responsible for the preparation of the supplementary information in accordance with the EEV Principles. Except for the consequential effects of the change in accounting policy for deferred acquisition costs for IFRS reporting, as described in the footnotes to the summary statement of financial position, the 2011 results have been derived from the EEV basis results supplement to the Company's statutory accounts for 2011.

a Covered business

The EEV results for the Group are prepared for 'covered business', as defined by the EEV Principles. Covered business represents the Group's long-term insurance business for which the value of new and in-force contracts is attributable to shareholders. The EEV basis results for the Group's covered business are then combined with the IFRS basis results of the Group's other operations. Under the EEV Principles, the results for covered business incorporate the projected margins of attaching internal asset management.

The definition of long-term business operations is consistent with previous practice and comprises those contracts falling under the definition for regulatory purposes together with, for US operations, contracts that are in substance the same as guaranteed investment contracts (GICs) but do not fall within the technical definition.

With two principal exceptions, covered business comprises the Group's long-term business operations. The principal exceptions are for the closed Scottish Amicable Insurance Fund (SAIF) and for the presentational treatment of the financial position of the Group's principal defined benefit pension scheme, the Prudential Staff Pension Scheme (PSPS), as described in note 1(c)(vi). A small amount of UK group pensions business is also not modelled for EEV reporting purposes.

SAIF is a ring-fenced sub-fund of the Prudential Assurance Company (PAC) long-term fund, established by a Court approved Scheme of Arrangement in October 1997. SAIF is closed to new business and the assets and liabilities of the fund are wholly attributable to the policyholders of the fund.

b Methodology

(i) Embedded value

Overview

The embedded value is the present value of the shareholders' interest in the earnings distributable from assets allocated to covered business after sufficient allowance has been made for the aggregate risks in that business. The shareholders' interest in the Group's long-term business comprises:

- Present value of future shareholder cash flows from in-force covered business (value of in-force business), less deductions for:
 - the cost of locked-in required capital;
 - the time value of cost of options and guarantees;
- Locked-in required capital; and
- Shareholders' net worth in excess of required capital (free surplus).

The value of future new business is excluded from the embedded value.

Notwithstanding the basis of presentation of results (as explained in note 1(c)(iv)) no smoothing of market or account balance values, unrealised gains or investment return is applied in determining the embedded value or profit before tax. Separately, the analysis of profit is delineated between operating profit based on longer-term investment returns and other constituent items (as explained in note 1(c)(i)).

Valuation of in-force and new business

The embedded value results are prepared incorporating best estimate assumptions about all relevant factors including levels of future investment returns, expenses, persistency and mortality. These assumptions are used to project future cash flows. The present value of the future cash flows is then calculated using a discount rate which reflects both the time value of money and the non-diversifiable risks associated with the cash flows that are not otherwise allowed for.

Best estimate assumptions

Best estimate assumptions are used for the cash flow projections, where best estimate is defined as the mean of the distribution of future possible outcomes. The assumptions are reviewed actively and changes are made when evidence exists that material changes in future experience are reasonably certain.

Assumptions required in the calculation of the value of options and guarantees, for example relating to volatilities and correlations, or dynamic algorithms linking liabilities to assets, have been set equal to the best estimates and, wherever material and practical, reflect any dynamic relationships between the assumptions and the stochastic variables.

Notes on the EEV basis results continued

1 Basis of preparation, methodology and accounting presentation continued

Principal economic assumptions

The EEV basis results for the Group's operations have been determined using economic assumptions where the long-term expected rates of return on investments and risk discount rates are set by reference to year end rates of return on government bonds.

Expected returns on equity and property asset classes and corporate bonds are derived by adding a risk premium, based on the Group's long-term view, to the risk-free rate.

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

New business

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

New business premiums reflect those premiums attaching to covered business, including premiums for contracts classified as investment products for IFRS basis reporting. New business premiums for regular premium products are shown on an annualised basis. Internal vesting business is classified as new business where the contracts include an open market option.

The contribution from new business represents profits determined by applying operating assumptions as at the end of the year.

For UK immediate annuity business and single premium Universal Life products in Asia, primarily Singapore, the new business contribution is determined by applying economic assumptions reflecting point of sale market conditions. This is consistent with how the business is priced as crediting rates are linked to yields on specific assets and the yield locked-in when the assets are purchased at the point of sale of the policy. For other business within the Group, end of period economic assumptions are used.

New business profitability is a key metric for the Group's management of the development of the business. In addition, new business margins are shown by reference to annual premium equivalents (APE) and the present value of new business premiums (PVNBP) and are calculated as the ratio of the value of new business profit to APE and PVNBP. APE are calculated as the aggregate of regular new business amounts and one-tenth of single new business amounts. PVNBP are calculated as equalling single premiums plus the present value of expected premiums of new regular premium business, allowing for lapses and other assumptions made in determining the EEV new business contribution.

Valuation movements on investments

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

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

However, in determining the movements on the additional shareholders' interest, the basis for calculating the Jackson EEV result acknowledges that, for debt securities backing liabilities, the aggregate EEV results reflect the fact that the value of in-force business instead incorporates the discounted value of future spread earnings. This value is not affected generally by short-term market movements on securities that broadly speaking, are held for the longer-term.

Fixed income securities backing the free surplus and required capital for Jackson are accounted for at fair value. However, consistent with the treatment applied under IFRS for Jackson securities classified as available-for-sale, movements in unrealised appreciation on these securities are accounted for in equity rather than in the income statement, as shown in the movement in shareholders' equity.

Cost of capital

A charge is deducted from the embedded value for the cost of capital supporting the Group's long-term business. This capital is referred to as required capital. The cost is the difference between the nominal value of the capital and the discounted value of the projected releases of this capital allowing for investment earnings (net of tax) on the capital.

The annual result is affected by the movement in this cost from year-to-year which comprises a charge against new business profit and generally a release in respect of the reduction in capital requirements for business in force as this runs off.

Where required capital is held within a with-profits long-term fund, the value placed on surplus assets in the fund is already discounted to reflect its release over time and no further adjustment is necessary in respect of required capital.

Financial options and guarantees

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

Asia operations

Subject to local market circumstances and regulatory requirements, the guarantee features described below in respect of UK business broadly apply to similar types of participating contracts principally written in the PAC Hong Kong branch, Singapore and Malaysia. Participating products have both guaranteed and non-guaranteed elements.

There are also various non-participating long-term products with guarantees. The principal guarantees are those for whole of life contracts with floor levels of policyholder benefits that accrue at rates set at inception and do not vary subsequently with market conditions.

US operations (Jackson)

The principal financial options and guarantees in Jackson are associated with the fixed annuity and variable annuity (VA) lines of business.

Fixed annuities provide that, at Jackson's discretion, it may reset the interest rate credited to policyholders' accounts, subject to a guaranteed minimum. The guaranteed minimum return varies from 1.0 per cent to 5.5 per cent for 2012 and 2011, depending on the particular product, jurisdiction where issued, and date of issue. For 2012, 86 per cent (2011: 85 per cent) of the account values on fixed annuities are for policies with guarantees of 3 per cent or less. The average guarantee rate is 2.8 per cent for 2012 and 2011.

Fixed annuities also present a risk that policyholders will exercise their option to surrender their contracts in periods of rapidly rising interest rates, possibly requiring Jackson to liquidate assets at an inopportune time.

Jackson issues VA contracts where it contractually guarantees to the contract holder either: a) return of no less than total deposits made to the contract adjusted for any partial withdrawals; b) total deposits made to the contract adjusted for any partial withdrawals plus a minimum return; or c) the highest contract value on a specified anniversary date adjusted for any withdrawals following the specified contract anniversary. These guarantees include benefits that are payable at specified dates during the accumulation period (Guaranteed Minimum Withdrawal Benefit (GMWB)), as death benefits (Guaranteed Minimum Death Benefits (GMDB)) or as income benefits (Guaranteed Minimum Income Benefits (GMIB)). These guarantees generally protect the policyholder's value in the event of poor equity market performance. Jackson hedges the GMDB and GMWB guarantees through the use of equity options and futures contracts, and fully reinsures the GMIB guarantees.

Jackson also issues fixed index annuities that enable policyholders to obtain a portion of an equity-linked return while providing a guaranteed minimum return. The guaranteed minimum returns would be of a similar nature to those described above for fixed annuities.

UK insurance operations

For covered business the only significant financial options and guarantees in the UK insurance operations arise in the with-profits fund.

With-profits products provide returns to policyholders through bonuses that are smoothed. There are two types of bonuses – annual and final. Annual bonuses are declared once a year and, once credited, are guaranteed in accordance with the terms of the particular product. Unlike annual bonuses, final bonuses are guaranteed only until the next bonus declaration. The with-profits fund also held a provision on the Pillar I Peak 2 basis of £47 million at 31 December 2012 (31 December 2011: £90 million) to honour guarantees on a small number of guaranteed annuity option products.

The only material guaranteed surrender values relate to investments in the PruFund range of with-profits funds. For these products the policyholder can choose to pay an additional management charge. In return, at the selected guarantee date, the fund will be increased if necessary to a guaranteed minimum value (based on the initial investment adjusted for any prior withdrawals). The with-profits fund held a reserve of £52 million at 31 December 2012 (31 December 2011: £59 million) in respect of this guarantee.

The Group's main exposure to guaranteed annuity options in the UK is through the non-covered business of SAIF. A provision on the Pillar I Peak 2 basis of £371 million was held in SAIF at 2012 (2011: £370 million) to honour the guarantees. As described in note 1(a) above, the assets and liabilities are wholly attributable to the policyholders of the fund. Therefore the movement in the provision has no direct impact on shareholders.

Time value

The value of financial options and guarantees comprises two parts. One is given by a deterministic valuation on best estimate assumptions (the intrinsic value). The other part arises from the variability of economic outcomes in the future (the time value).

Where appropriate, a full stochastic valuation has been undertaken to determine the time value of the financial options and guarantees.

The economic assumptions used for the stochastic calculations are consistent with those used for the deterministic calculations. Assumptions specific to the stochastic calculations reflect local market conditions and are based on a combination of actual market data, historic market data and an assessment of long-term economic conditions. Common principles have been adopted across the Group for the stochastic asset models, for example, separate modelling of individual asset classes but with an allowance for correlation between the various asset classes. Details of the key characteristics of each model are given in notes 17(iv), (v) and (vi).

In deriving the time value of financial options and guarantees, management actions in response to emerging investment and fund solvency conditions have been modelled. Management actions encompass, but are not confined to investment allocation decisions, levels of reversionary and terminal bonuses and credited rates. Bonus rates are projected from current levels and varied in accordance with assumed management actions applying in the emerging investment and fund solvency conditions.

In all instances, the modelled actions are in accordance with approved local practice and therefore reflect the options actually available to management. For the PAC with-profits fund, the actions assumed are consistent with those set out in the Principles and Practices of Financial Management which explains how regular and final bonus rates within the discretionary framework are determined, subject to the general legislative requirements applicable.

Notes on the EEV basis results continued

1 Basis of preparation, methodology and accounting presentation continued

(ii) Level of required capital

In adopting the EEV Principles, Prudential has based required capital on its internal targets for economic capital subject to it being at least the local statutory minimum requirements. Economic capital is assessed using internal models but, when applying the EEV Principles, Prudential does not take credit for the significant diversification benefits that exist within the Group. For with-profits business written in a segregated life fund, as is the case in Asia and the UK, the capital available in the fund is sufficient to meet the required capital requirements. For shareholder-backed business the following capital requirements apply:

- Asia operations: the level of required capital has been set at the higher of local statutory requirements and the economic capital requirement;
- US operations: the level of required capital has been set to an amount at least equal to 235 per cent of the risk-based capital required by the National Association of Insurance Commissioners (NAIC) at the Company Action Level (CAL); and
- UK insurance operations: the capital requirements are set at the higher of Pillar I and Pillar II requirements for shareholder-backed business of UK insurance operations as a whole.

(iii) Allowance for risk and risk discount rates

Overview

Under the EEV Principles, discount rates used to determine the present value of future cash flows are set equal to risk-free rates plus a risk margin. The risk margin should reflect any non-diversifiable risk associated with the emergence of distributable earnings that is not allowed for elsewhere in the valuation. Prudential has selected a granular approach to better reflect differences in market risk inherent in each product group. The risk discount rate so derived does not reflect an overall Group market beta but instead reflects the expected volatility associated with the cash flows for each product category in the embedded value model.

Since financial options and guarantees are explicitly valued under the EEV methodology, discount rates under EEV are set excluding the effect of these product features.

The risk margin represents the aggregate of the allowance for market risk, additional allowance for credit risk where appropriate, and allowance for non-diversifiable non-market risk. No allowance is required for non-market risks where these are assumed to be fully diversifiable.

Market risk allowance

The allowance for market risk represents the beta multiplied by an equity risk premium. Except for UK shareholder-backed annuity business (as explained below) such an approach has been used for all of the Group's businesses.

The beta of a portfolio or product measures its relative market risk. The risk discount rates reflect the market risk inherent in each product group and hence the volatility of product cash flows. These are determined by considering how the profits from each product are affected by changes in expected returns on various asset classes. By converting this into a relative rate of return it is possible to derive a product specific beta.

Product level betas reflect the most recent product mix to produce appropriate betas and risk discount rates for each major product grouping.

Additional credit risk allowance

The Group's methodology is to allow appropriately for credit risk. The allowance for total credit risk is to cover:

- Expected long-term defaults;
- Credit risk premium (to reflect the volatility in downgrade and default levels); and
- Short-term downgrades and defaults.

These allowances are initially reflected in determining best estimate returns and through the market risk allowance described above. However, for those businesses which are largely backed by holdings of debt securities these allowances in the projected returns and market risk allowances may not be sufficient and an additional allowance may be appropriate.

The practical application of the allowance for credit risk varies depending upon the type of business as described below.

Asia operations

For Asia operations, the allowance for credit risk incorporated in the projected rates of return and the market risk allowance are sufficient. Accordingly, no additional allowance for credit risk is required.

In 2012, the basis of determining projected rates of return for holdings of corporate bonds was refined so as to comprise the risk-free rate plus an assessment of long-term spread over the risk-free rate. Previously, market spreads at the reporting date, rather than long-term spreads, were applied. The main effects of this change are for holdings in Hong Kong, Korea, Malaysia and Singapore. The new basis aligns with the approach for UK with-profit holdings of corporate bonds and, more generally, is consistent with the use of long-term risk premiums for holdings of other categories of investments across the Group's operations.

US operations (Jackson)

For Jackson business, the allowance for long-term defaults is reflected in the risk margin reserve (RMR) charge which is deducted in determining the projected spread margin between the earned rate on the investments and the policyholder crediting rate.

The risk discount rate incorporates an additional allowance for credit risk premium and short-term downgrades and defaults. In determining this allowance a number of factors have been considered. These factors, in particular, include:

- How much of the credit spread on debt securities represents an increased credit risk not reflected in the RMR long-term default assumptions, and how much is liquidity premium (which is the premium required by investors to compensate for the risk of longer-term investments which cannot be easily converted into cash, and converted at the fair market value). In assessing this effect, consideration has been given to a number of approaches to estimating the liquidity premium by considering recent statistical data; and
- Policyholder benefits for Jackson fixed annuity business are not fixed. It is possible in adverse economic scenarios to pass on a component of credit losses to policyholders (subject to guarantee features) through lower investment return rates credited to policyholders. Consequently, it is only necessary to allow for the balance of the credit risk in the risk discount rate.

After taking these and related factors into account and based on market conditions, the risk discount rate for general account business includes an additional allowance of 150 basis points (2011: 200 basis points) for credit risk. For VA business, the additional allowance has been set at one-fifth (equivalent to 30 basis points (2011: 40 basis points)) of the non-VA business to reflect the proportion of the VA business that is allocated to holdings of general account debt securities. The level of the additional allowance is assessed at each reporting period to take account of prevailing credit conditions and as the business in force alters over time.

The level of allowance differs from that for UK annuity business for investment portfolio differences and to take account of the management actions available in adverse economic scenarios to reduce crediting rates to policyholders, subject to guarantee features of the products.

UK operations

(1) Shareholder-backed annuity business

For Prudential's UK shareholder-backed annuity business, Prudential has used a market consistent embedded value (MCEV) approach to derive an implied risk discount rate which is then applied to the projected best estimate cash flows.

In the annuity MCEV calculations, the future cash flows are discounted using the swap yield curve plus an allowance for liquidity premium based on Prudential's assessment of the expected return on the assets backing the annuity liabilities after allowing for expected long-term defaults, a credit risk premium, an allowance for a 1 notch downgrade of the portfolio subject to credit risk and an allowance for short-term defaults. For the purposes of presentation in the EEV results, the results on this basis are reconfigured. Under this approach the projected earned rate of return on the debt securities held is determined after allowing for expected long-term defaults and, where necessary, an additional allowance for an element of short-term downgrades and defaults to bring the allowance in the earned rate up to best estimate levels. The allowances for credit risk premium, 1 notch downgrade and the remaining element of short-term downgrade and default allowances are incorporated into the risk margin included in the discount rate, as shown in note 17(iii).

(2) With-profits fund non-profit annuity business

For UK non-profit annuity business including that written by Prudential Annuities Limited (PAL) the basis for determining the aggregate allowance for credit risk is consistent with that applied for UK shareholder-backed annuity business (as described above). The allowance for credit risk in PAL is taken into account in determining the projected cash flows to the with-profits fund, which are in turn discounted at the risk discount rate applicable to all of the projected cash flows of the fund.

(3) With-profits fund holdings of debt securities

The UK with-profits fund holds debt securities as part of its investment portfolio backing policyholder liabilities and unallocated surplus. The assumed earned rate for with-profit holdings of corporate bonds is defined as the risk-free rate plus an assessment of the long-term spread over gilts, net of expected long-term defaults. This approach is similar to that applied for equities and properties for which the projected earned rate is defined as the risk-free rate plus a long-term risk premium.

Allowance for non-diversifiable non-market risks

The majority of non-market and non-credit risks are considered to be diversifiable. Finance theory cannot be used to determine the appropriate component of beta for non-diversifiable non-market risks since there is no observable risk premium associated with it that is akin to the equity risk premium. Recognising this, a pragmatic approach has been applied.

A base level allowance of 50 basis points is applied to cover the non-diversifiable non-market risks associated with the Group's businesses. For the Group's US business and UK business other than shareholder-backed annuity, no additional allowance is necessary. For UK shareholder-backed annuity business a further allowance of 50 basis points is used to reflect the longevity risk which is of particular relevance. For the Group's Asia operations in China, India, Indonesia, the Philippines, Taiwan, Thailand and Vietnam, additional allowances are applied for emerging market risk ranging from 100 to 250 basis points.

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

The proportion of surplus allocated to shareholders from the PAC with-profits fund has been based on the present level of 10 per cent. The value attributed to the shareholders' interest in the estate is derived by increasing final bonus rates (and related shareholder transfers) so as to exhaust the estate over the lifetime of the in-force with-profits business. In any scenarios where the total assets of the life fund are insufficient to meet policyholder claims in full, the excess cost is fully attributed to shareholders. Similar principles apply, where appropriate, for other with-profits funds of the Group's Asia operations.

Notes on the EEV basis results continued

1 Basis of preparation, methodology and accounting presentation continued

(v) Debt capital

Core structural debt liabilities are carried at market value. As the liabilities are generally held to maturity or for the long term, no deferred tax asset or liability has been established on the difference, compared to the IFRS carrying value. Accordingly, no deferred tax credit or charge is recorded in the results for the reporting period in respect of the mark to market value adjustment.

(vi) Foreign currency translation

Foreign currency profits and losses have been translated at average exchange rates for the year. Foreign currency assets and liabilities have been translated at year end rates of exchange. The purpose of translating the profits and losses at average exchange rates, notwithstanding the fact that EEV profit represents the incremental value added on a discounted cash flow basis, is to maintain consistency with the methodology applied for IFRS basis reporting.

c Accounting presentation

(i) Analysis of profit before tax

To the extent applicable, the presentation of the EEV profit for the year is consistent with the basis that the Group applies for analysis of IFRS basis profits before shareholder taxes between operating and non-operating results. Operating results reflect the underlying results including longer-term investment returns (which are determined as described in note 1(c)(ii) below) and incorporate the following:

- New business contribution, as defined in note 1(b)(i);
- Unwind of discount on the value of in-force business and other expected returns, as described in note 1(c)(iv) below;
- The impact of routine changes of estimates relating to non-economic assumptions, as described in note 1(c)(iii) below; and
- Non-economic experience variances, as described in note 1(c)(v) below.

Non-operating results comprise the recurrent items of short-term fluctuations in investment returns, the shareholders' share of actuarial and other gains and losses on defined benefit pension schemes, the mark to market value movements on core borrowings and the effect of changes in economic assumptions.

In addition, for 2012 the gain recognised on the acquisition of REALIC and the gain on dilution of the Group holdings in PPM South Africa have been shown separately from operating profits based on longer-term investment returns.

(ii) Operating profit

For the investment element of the assets covering the net worth of long-term insurance business, investment returns are recognised in operating results at the expected long-term rate of return. These expected returns are calculated by reference to the asset mix of the portfolio. For the purpose of calculating the longer-term investment return to be included in the operating result of the PAC with-profits fund of UK operations, where assets backing the liabilities and unallocated surplus are subject to market volatility, asset values at the beginning of the reporting period are adjusted to remove the effects of short-term market movements as explained in note 1(c)(iv) below.

For the purpose of determining the long-term returns for debt securities of US operations for fixed annuity and other general account business, a risk margin charge is included which reflects the expected long-term rate of default based on the credit quality of the portfolio. For Jackson, interest-related realised gains and losses are amortised to the operating results over the maturity period of the sold bonds and for equity-related investments, a long-term rate of return is assumed, which reflects the aggregation of end of year risk-free rates and equity risk premium. For US variable annuity separate account business, operating profit includes the unwind of discount on the opening value of in-force adjusted to reflect end of year projected rates of return with the excess or deficit of the actual return recognised within non-operating profit, together with the related hedging activity.

For UK annuity business, rebalancing of the asset portfolio backing the liabilities to policyholders may, from time to time, take place to align it more closely with the internal benchmark of credit quality that management applies. Such rebalancing will result in a change in the projected yield on the asset portfolio and the allowance for default risk. The net effect of these changes is included in the result for the year.

(iii) Effect of changes in operating assumptions

Operating profit includes the effect of changes to operating assumptions on the value of in-force at the end of the period. For presentational purposes, the effect of change is delineated to show the effect on the opening value of in-force with the experience variance being determined by reference to the end of period assumptions.

(iv) Unwind of discount and other expected returns

The unwind of discount and other expected returns is determined by reference to the value of in-force business, required capital and surplus assets at the start of the period as adjusted for the effect of changes in economic and operating assumptions reflected in the current period.

For UK insurance operations the amount included within operating results based on longer-term investment returns represents the unwind of discount on the value of in-force business at the beginning of the period (adjusted for the effect of current period assumption changes), the unwind of discount on additional value representing the shareholders' share of smoothed surplus assets retained within the PAC with-profits fund (as explained in note 1(c)(ii) above), and the expected return on shareholders' assets held in other UK long-term business operations. Surplus assets retained within the PAC with-profits fund are smoothed for this purpose to remove the effects of short-term investment volatility from operating results. In the summary statement of financial position and for total profit reporting, asset values and investment returns are not smoothed. At 31 December 2012, the shareholders' interest in the smoothed surplus assets used for this purpose only, were £121 million lower (31 December 2011: £39 million higher) than the surplus assets carried in the statement of financial position.

(v) Operating experience variances

Operating profits include the effect of experience variances on non-economic assumptions, which are calculated with reference to the embedded value assumptions at the end of the reporting year, such as persistency, mortality and morbidity, expenses and other factors. Further details of these assumptions are shown in notes 17(vii), (viii) and (ix).

(vi) Pension costs**Profit before tax**

Movements on the shareholders' share of surpluses (to the extent not restricted by IFRIC 14) and deficits of the Group's defined benefit pension schemes adjusted for contributions paid in the year are recorded within the income statement. Consistent with the basis of distribution of bonuses and the treatment of the estate described in notes 1(b)(i) and (iv), the shareholders' share incorporates 10 per cent of the proportion of the financial position attributable to the PAC with-profits fund. The financial position is determined by applying the requirements of IAS 19.

Actuarial and other gains and losses of defined benefit pension schemes

For the Group's defined benefit pension schemes the EEV results reflect the IAS 19 position booked for IFRS reporting. Consistent with this approach, to the extent of recognition of any surplus, the actuarial and other gains and losses include:

- The difference between actual and expected return on the scheme assets;
- Experience gains and losses on scheme liabilities;
- The impact of altered economic and other assumptions on the discounted value of scheme liabilities; and
- For pension schemes where the IAS 19 position reflects a deficit funding obligation, actuarial and other gains and losses includes the movement in estimates of deficit funding requirements.

In addition, this item includes the effect of partial recognition of the Prudential Staff Pension Scheme surplus that arose in 2012. This partial recognition reflects the impact of the 5 April 2011 triennial valuation that was completed in 2012. Under that valuation there was sufficient actuarial surplus to permit a reduction in employer contributions to the minimum level under the trust deed rules, thereby allowing recoverability of part of the surplus in future years.

These items are recorded in the income statement but, consistent with the IFRS basis of presentation, are excluded from operating results based on longer-term investment returns.

(vii) Effect of changes in economic assumptions

Movements in the value of in-force business at the beginning of the period caused by changes in economic assumptions, net of the related change in the time value of cost of option and guarantees, are recorded in non-operating results.

(viii) Taxation

The profit for the year for covered business is in most cases calculated initially at the post-tax level. The post-tax profit for covered business is then grossed up for presentation purposes at the rates of tax applicable to the countries and periods concerned. In the UK, the rate applied for 2012 is 23 per cent (2011: 25 per cent). For Jackson, the US federal tax rate of 35 per cent is applied to gross up movements on the value of in-force business. The overall tax rate includes the impact of tax effects determined on a local regulatory basis. For Asia, similar principles apply subject to the availability of taxable profits. Tax payments and receipts included in the projected cash flows to determine the value of in-force business are calculated using rates that have been substantively enacted by the end of the reporting period. Possible future changes of rate are not anticipated. See note 17(ix) for further details.

(ix) Inter-company arrangements

The EEV results for covered business incorporate the effect of the reinsurance arrangement of non-profit immediate pension annuity liabilities of SAIF (which is not covered business) to PRIL. In addition, the analysis of free surplus and value of in-force business takes account of the impact of contingent loan arrangements between Group companies.

(x) Foreign exchange rates

Foreign currency results have been translated as discussed in note 1(b)(vi), for which the principal exchange rates are as follows:

Local currency: £	Closing rate at 31 Dec 2012	Average rate for 2012	Closing rate at 31 Dec 2011	Average rate for 2011	Opening rate at 1 Jan 2011
China	10.13	10.00	9.78	10.37	10.32
Hong Kong	12.60	12.29	12.07	12.48	12.17
India	89.06	84.70	82.53	74.80	70.01
Indonesia	15,665.76	14,842.01	14,091.80	14,049.41	14,106.51
Korea	1,740.22	1,785.07	1,790.32	1,775.98	1,776.86
Malaysia	4.97	4.89	4.93	4.90	4.83
Singapore	1.99	1.98	2.02	2.02	2.01
Taiwan	47.20	46.88	47.06	47.12	45.65
Vietnam	33,875.42	33,083.59	32,688.16	33,139.22	30,526.26
US	1.63	1.58	1.55	1.60	1.57

Notes on the EEV basis results continued

2 Analysis of new business contribution

	2012						
	New business premiums		Annual premium and contribution equivalents (APE) £m	Present value of new business premiums (PVNBP) £m	Pre-tax new business contribution £m	New business margin	
	Single £m	Regular £m				(APE) %	(PVNBP) %
Asia operations	1,568	1,740	1,897	10,544	1,266	67	12.0
US operations	14,504	12	1,462	14,600	873	60	6.0
UK insurance operations	6,286	207	836	7,311	313	37	4.3
Total	22,358	1,959	4,195	32,455	2,452	58	7.6

	2011						
	New business premiums		Annual premium and contribution equivalents (APE) £m	Present value of new business premiums (PVNBP) £m	Pre-tax new business contribution £m	New business margin	
	Single £m	Regular £m				(APE) %	(PVNBP) %
Asia operations	1,456	1,514	1,660	8,910	1,076	65	12.1
US operations	12,562	19	1,275	12,720	815	64	6.4
UK insurance operations	4,871	259	746	6,111	260	35	4.3
Total	18,889	1,792	3,681	27,741	2,151	58	7.8

	New business contribution	
	2012 £m	2011 £m
Asia operations:		
China	26	27
Hong Kong	210	218
India	19	20
Indonesia	476	314
Korea	26	43
Taiwan	48	28
Other	461	426
Total Asia operations	1,266	1,076

3 Operating profit from business in force

(i) Group summary

	2012 £m			Total
	Asia operations note (ii)	US operations note (iii)	UK insurance operations note (iv)	
Unwind of discount and other expected returns	599	412	482	1,493
Effect of changes in operating assumptions*	20	35	87	142
Experience variances and other items	75	290	(16)	349
Total	694	737	553	1,984

	2011 £m			Total
	Asia operations note (ii)	US operations note (iii)	UK insurance operations note (iv)	
Unwind of discount and other expected returns	613	349	485	1,447
Effect of changes in operating assumptions*	10	14	79	103
Experience variances and other items	65	253	29	347
Total	688	616	593	1,897

* As shown below.

(ii) Asia operations

	2012 £m	2011 £m
Unwind of discount and other expected returns ^{note(a)}	599	613
Effect of changes in operating assumptions:		
Mortality and morbidity ^{note(b)}	94	126
Persistency and withdrawals ^{note(c)}	(34)	(140)
Expense ^{note(d)}	(48)	11
Other	8	13
	20	10
Experience variance and other items:		
Mortality and morbidity ^{note(e)}	57	58
Persistency and withdrawals ^{note(f)}	50	10
Expense ^{note(g)}	(30)	(31)
Other ^{note(h)}	(2)	28
	75	65
Total Asia operations	694	688

Notes

- (a) The decrease in unwind of discount and other expected returns of £(14) million from £613 million in 2011 to £599 million in 2012 mainly reflects the £(43) million effect of lower risk discount rates driven by the reduction in interest rates, partly offset by the £29 million effect of the growth in the opening in-force value (adjusted for assumption changes), on which the discount rates are applied.
- (b) The credit of £94 million in 2012 for mortality and morbidity assumption changes primarily reflects mortality improvements in Hong Kong and Singapore and revised assumptions for critical illness business in Singapore in line with recent experience. In 2011, the £126 million reflected £69 million arising in Malaysia, £33 million in Indonesia and a net £24 million for other operations.
- (c) The charge of £(140) million for 2011 principally arose in Malaysia for partial withdrawals. The 2012 charge reflects a number of offsetting items including further adjustments to partial withdrawals in Malaysia.
- (d) The charge of £(48) million for expense assumption changes in 2012 principally arises in Malaysia and reflects changes to the pension entitlements of agents.
- (e) The favourable effect of mortality and morbidity experience in 2012 of £57 million (2011: £58 million) reflects continued better than expected experience, principally arising in Hong Kong, Indonesia, Malaysia and Singapore.
- (f) The positive persistency and withdrawals experience variance of £50 million in 2012 (2011: £10 million) reflects a combination of favourable experience in Hong Kong and Indonesia.
- (g) The negative expense experience variance of £(30) million in 2012 (2011: £(31) million) principally reflects expense overruns for operations which are currently sub-scale (China, Malaysia Takaful and Taiwan) and in India where the business model is being adapted in response to the regulatory changes introduced in recent years.
- (h) The charge of £(2) million in 2012 for other items reflects the broadly offsetting effects of the realised gain on the sale of the Group's 7.74 per cent stake in China Life of Taiwan and charges for other non-recurrent items.

Notes on the EEV basis results continued

3 Operating profit from business in force continued**(iii) US operations**

	2012 £m	2011 £m
Unwind of discount and other expected returns ^{note(a)}	412	349
Effect of changes in operating assumptions:		
Persistency ^{note(b)}	45	29
Variable annuity (VA) fees ^{note(c)}	(19)	24
Mortality ^{note(d)}	33	(36)
Other ^{note(e)}	(24)	(3)
	35	14
Experience variances and other items:		
Spread experience variance ^{note(f)}	205	152
Amortisation of interest-related realised gains and losses ^{note(g)}	91	84
Other	(6)	17
	290	253
Total US operations	737	616

Notes

- (a) The increase in unwind of discount and other expected returns of £63 million from £349 million for 2011 to £412 million for 2012 includes the £67 million effect of the increase in opening value of in-force business (after economic assumption changes), an impact of £19 million relating to the post-acquisition unwind of discount for REALIC, partly offset by the £(23) million effect of lower risk discount rates driven by the 0.1 per cent reduction in the 10-year US treasury rate together with the decrease in additional allowance for credit risk as explained in note 1(b) (iii).
- (b) The effect of changes in persistency assumptions of £45 million in 2012 primarily relate to VA business.
- (c) The effect of the change of assumption for VA fees represents the capitalised value of the change in the projected level of policyholder advisory fees, which vary according to the current size and mix of VA funds.
- (d) The credit of £33 million in 2012 for the effect of updated mortality assumptions principally relates to life business, representing a credit of £86 million for the modelling of projected mortality improvement, partially offset by a charge of £(53) million for other regular mortality updates to reflect recent experience. In 2011, the charge of £(36) million for updated mortality assumptions primarily arose on variable annuity business.
- (e) The charge of £(24) million in 2012 for other operating assumption changes includes a charge of £(12) million for the impact of altered assumptions for Guaranteed Minimum Withdrawal Benefit utilisation and £(12) million for other items.
- (f) The spread assumption for Jackson is determined on a longer-term basis, net of provision for defaults. The spread experience variance in 2012 of £205 million (2011: £152 million) includes the positive effect of transactions undertaken to more closely match the overall asset and liability duration.
- (g) The amortisation of interest-related gains and losses reflects the fact that when bonds that are neither impaired nor deteriorating are sold and reinvested there will be a consequent change in the investment yield. The realised gain or loss is amortised into the result over the period when the bonds would have otherwise matured to better reflect the long-term returns included in operating profits.

(iv) UK insurance operations

	2012 £m	2011 £m
Unwind of discount and other expected returns ^{note(a)}	482	485
Effect of change in UK corporate tax rate ^{note(b)}	87	79
Other items ^{note(c)}	(16)	29
Total UK insurance operations	553	593

Notes

- (a) The decrease in unwind of discount and other expected returns of £(3) million from £485 million in 2011 to £482 million for 2012 reflects the £(17) million effect of lower risk discount rates driven by the reduction in interest rates, partly offset by the £14 million effect of an increase in the opening in-force value (after economic assumption changes) on which the discount rates are applied.
- (b) The effect of the change in tax rate of £87 million in 2012 represents the benefit of the reduction in tax rate from 25 per cent to 23 per cent. Consistent with the Group's approach of grossing up the movement in the net of tax value of in-force for shareholder tax, the £87 million benefit is presented gross (2011: £79 million, 27 per cent to 25 per cent).
- (c) Other items in 2012 of £(16) million includes a charge of £(52) million for the strengthening of mortality assumptions, net of reserve releases and the effects of portfolio rebalancing for annuity business.

4 Changes to Group's holdings

PPM South Africa

On 22 February 2012, M&G completed transactions to (i) exchange bonus share rights for equity holdings with the employees of PPM South Africa, and (ii) the sale of a 10 per cent holding in the majority of the business to Thesele Group, a minority shareholder, for cash. Following these transactions M&G's majority holding in the business reduced from 75 per cent to 49.99 per cent. Under IFRS requirements, the divestment is accounted for as the disposal of the 75 per cent holding and an acquisition of a 49.99 per cent holding at fair value resulting in a reclassification of PPM South Africa from a subsidiary to an associate. As a consequence of the IFRS application, the transactions gave rise to a gain on dilution of £42 million. Consistent with the Group's treatment for IFRS reporting, this amount has been treated as a gain on dilution of holdings which is shown separately from operating profit based on longer-term investment returns in the Group's supplementary analysis of profit.

5 Acquisition of Reassure America Life Insurance Company (REALIC)

On 4 September 2012, the Group through its indirect wholly-owned subsidiary, Jackson National Life Insurance Company, completed the acquisition of 100 per cent issued share capital of SRLC America Holding Corp. (SRLC), and its primary operating subsidiary, Reassure America Life Insurance Company (REALIC). The purchase consideration, which remains subject to final agreement under the terms of the transaction with Swiss Re, is £370 million (US\$587 million). The Embedded value of REALIC on the date of acquisition, calculated in accordance with the Group's methodology and assumptions as set out in note 1 was £823 million. The acquisition increases the scale of the Group's life business in the US, helping Jackson to diversify earnings by increasing the amount of income from underwriting activities thereby enhancing the quality of earnings in a capital efficient manner. The earnings of REALIC are derived from seasoned, long duration cash flows, generated principally from term life, whole life and basic universal life products.

The gain arising from the acquisition of REALIC is excluded from the Group's EEV operating profit based on longer-term investment returns and is calculated as follows:

	Total EEV 2012 £m note (ii)
Embedded value of acquired business ^{note (i)}	823
Total purchase consideration	(370)
Gain arising on acquisition	453

Notes

- (i) The embedded value of the acquired business has been determined by applying the same methodology as applied for Jackson's non-variable annuity business. A risk discount rate of 4.3 per cent at the date of acquisition on 4 September 2012 has been used.
- (ii) The amounts shown above have been translated at the 4 September 2012 exchange rate of US\$1.59/£.

6 Short-term fluctuations in investment returns

Short-term fluctuations in investment returns, net of the related change in the time value of cost of options and guarantees, arise as follows:

(i) Group summary

	2012 £m	2011 £m
Insurance operations:		
Asia ^{note (ii)}	395	(155)
US ^{note (iii)}	(254)	(491)
UK ^{note (iv)}	315	(141)
	456	(787)
Other operations:		
Economic hedge value movement ^{note (v)}	(32)	–
Other ^{note (vi)}	114	(120)
Total	538	(907)

Notes on the EEV basis results continued

6 Short-term fluctuations in investment returns continued

(ii) Asia operations

For 2012, the positive short-term fluctuations in investment returns of £395 million in Asia operations were driven by unrealised gains on bonds and higher equity markets, principally arising in Hong Kong of £139 million mainly relating to positive returns on bonds backing participating business, Singapore of £114 million, primarily relating to increasing future expected fee income for unit-linked business and unrealised gains on bonds, Taiwan of £56 million for unrealised gains on bonds and CDOs and India of £30 million.

For 2011, short-term fluctuations in investment returns of £(155) million were driven by lower equity markets reducing future expected fee income, mainly arising in Singapore of £(105) million and Korea of £(22) million. The 2011 short-term fluctuations in investment returns also included £(28) million of adverse variance arising in other territories. This principally comprises fluctuations arising in India of £(53) million reflecting lower equity market returns, in Vietnam of £(33) million for unrealised losses on bonds and equities and Taiwan of £(30) million for losses on bonds and CDOs, partially offset by a credit in Hong Kong of £96 million primarily relating to positive returns on bonds backing participating business.

(iii) US operations

The short-term fluctuations in investment returns for US operations comprise the following items:

	2012 £m	2011 £m
Investment return related experience on fixed income securities ^{note(a)}	(99)	(74)
Investment return related impact due primarily to changed expectation of profits on in-force variable annuity business in future periods based on current period equity returns, net of related hedging activity for equity related products ^{note(b)}	(183)	(418)
Actual less long-term return on equity based investments and other items	28	1
Total Jackson	(254)	(491)

Notes

- (a) The charge relating to fixed income securities comprises the following elements:
- the excess of actual realised losses over the amortisation of interest related realised gains and losses recorded in the profit and loss account;
 - credit loss experience (versus the longer-term assumption); and
 - the impact of de-risking activities within the portfolio.
- (b) This item reflects the net impact of:
- variances in projected future fees arising from the effect of market fluctuations on the growth in separate account asset values in the current reporting period; and
 - related hedging activity.
- In 2012, there was a 14.8 per cent rate of return for the variable annuity separate account assets compared with an assumed longer-term rate of return of 5.3 per cent. Consequently, the asset values and therefore projected future fees at 31 December 2012 were higher than assumed. However, net of the impact of related hedging effects there is a short-term fluctuation of £(183) million.
- In 2011, there was a negative 0.5 per cent rate of return for the variable annuity separate account assets. This compared with an assumed longer-term rate of return of 5.4 per cent. Consequently, the asset values and therefore projected future fees at 31 December 2011 were lower than assumed.

(iv) UK insurance operations

The short-term fluctuations in investment returns for UK insurance operations arise from the following types of business:

	2012 £m	2011 £m
With-profits ^{note(a)}	285	(201)
Shareholder-backed annuity ^{note(b)}	(3)	56
Unit-linked and other	33	4
	315	(141)

Notes

- (a) For with-profits business the amounts reflect the excess (deficit) of the actual investment return on the investments of the PAC with-profits fund (covering policyholder liabilities and unallocated surplus) against the assumed long-term rate for the year. For 2012, the credit of £285 million reflects the actual investment return of 9.8 per cent against the assumed long-term rate of 5.0 per cent for the year.
- For 2011, the charge of £(201) million reflects the actual investment return of 3.2 per cent against the assumed long-term rate of 5.1 per cent, primarily reflecting the fall in equity markets and widening of corporate bond credit spreads, partially offset by the increase in asset values as a result of the reduction in bond yields.
- (b) Short-term fluctuations in investment returns for shareholder-backed annuity business comprise: (1) gains on surplus assets reflecting reductions in corporate bond and gilt yields; (2) the difference between actual and expected default experience; and (3) the effect of mismatching for assets and liabilities of different durations and other short-term fluctuations in investment returns.

(v) Economic hedge value movements

This item represents the costs on short-dated hedge contracts taken out in the first half of 2012 to provide downside protection against severe equity market falls through a period of particular uncertainty with respect to the Eurozone. The hedge contracts were terminated in the second half of 2012.

(vi) Other

Short-term fluctuations of Other operations in 2012 of £114 million primarily represent unrealised fair value movements on Prudential Capital's bond portfolio. Short-term fluctuations of Other operations in 2011 of £(120) million represent unrealised value movements on investments, including centrally held swaps to manage foreign exchange and certain macroeconomic exposures of the Group.

7 Shareholders' share of actuarial and other gains and losses on defined benefit pension schemes

The credit for the shareholders' share of actuarial and other gains and losses comprises:

	2012 £m	2011 £m
IFRS basis	50	21
Additional shareholders' interest ^{note 1(c)(vi)}	12	2
EEV basis total	62	23

8 Effect of changes in economic assumptions

The effect of changes in economic assumptions for in-force business, net of the related change in the time value of cost of options and guarantees, included within profit before tax (including actual investment returns) arise as follows:

(i) Group summary

	2012 £m	2011 £m
Asia operations ^{note (ii)}	(149)	279
US operations ^{note (iii)}	85	(144)
UK insurance operations ^{note (iv)}	48	(293)
Total	(16)	(158)

(ii) Asia operations

The effect of changes in economic assumptions for Asia operations in 2012 of £(149) million principally arises in Hong Kong of £(320) million, primarily reflecting the effect on projected cash flows of de-risking the asset portfolio and the reduction in fund earned rates on participating business, driven by the very low interest rate environment, and in Vietnam of £(47) million, following the fall in bond yields. There are partial offsets which in total are £218 million, principally arising in Malaysia and Indonesia, mainly reflecting the positive impact of discounting projected health and protection profits at lower rates, driven by the decrease in risk discount rates.

The effect of changes in economic assumptions for 2011 of a credit of £279 million principally arose in Singapore of £160 million, Malaysia of £97 million and Indonesia of £94 million, primarily reflecting the positive impact of discounting projected health and protection profits at lower rates, driven by the decrease in risk-free rates. There is a partial offset arising in Hong Kong of £(57) million, primarily reflecting the reduction in fund earned rates for participating business.

(iii) US operations

The effect of changes in economic assumptions for US operations reflects the following:

	2012 £m	2011 £m
Effect of changes in 10-year treasury rates, beta and equity risk premium: ^{note (a)}		
Fixed annuity and other general account business	20	282
Variable annuity (VA) business	(83)	(333)
Decrease (increase) in additional allowance for credit risk ^{note (b)}	148	(93)
	85	(144)

Notes

(a) For Jackson, the effect of changes in economic assumptions represents the aggregate of the effects of changes to projected returns and the risk discount rate. The risk discount rate, as discussed in note 1(b)(iii), represents the aggregate of the risk-free rate and margin for market risk, credit risk and non-diversifiable non-market risk.

For fixed annuity and other general account business the effect of changes to the risk-free rate, which is defined as the 10-year treasury rate, is reflected in the risk discount rate. This discount rate is in turn applied to projected cash flows which principally reflect projected spread, which is largely insensitive to changes in the risk-free rate. Secondary effects on the cash flows also result from changes to assumed future yield and resulting policyholder behaviour. For VA business, changes to the risk-free rate are also reflected in determining the risk discount rate. However, the projected cash flows are also reassessed for altered investment returns on the underlying separate account assets on which fees are charged. In 2012, for fixed annuity and other general account business the credit of £20 million principally arises from the effect of a lower discount rate on the opening value of the in-force book, driven by the 10 basis points reduction in the risk-free rate (as shown in note 17(ii)), partially offset by the effect for the acquired REALIC book, reflecting the 20 basis point increase in the risk-free rate from the 4 September acquisition date.

For 2011, the credit of £282 million reflected the 140 basis points reduction in the risk-free rate. For VA business, the charge of £(83) million (2011: £(333) million) reflects the 10 basis points reduction (2011: a reduction of 140 basis points) in the risk-free rate (as shown in note 17(ii)).

(b) For 2012, the £148 million effect of the decrease in the additional allowance within the risk discount rate for credit risk reflects the reduction in credit spreads and represents a 50 basis points decrease for spread business, including the acquired REALIC business (from 200 basis points in 2011 to 150 basis points in 2012), and 10 basis points decrease for VA business (from 40 basis points in 2011 to 30 basis points in 2012), representing the proportion of business invested in the general account (as described in note 1(b)(iii)).

For 2011, the effect of £(93) million for the increase in the risk margin allowance within the risk discount rate for credit risk represented a 50 basis points increase for spread business and 10 basis points increase for VA business.

Notes on the EEV basis results continued

8 Effect of changes in economic assumptions continued

(iv) UK insurance operations

The effect of changes in economic assumptions of a credit of £48 million for UK insurance operations for 2012 comprises the effect of:

	2012 £m	2011 £m
Shareholder-backed annuity business ^{note(a)}		
Effect of change in:		
Expected long-term rates of return, risk discount rates and other changes	140	278
Tax regime ^{note(b)}	(46)	–
	94	278
With-profits and other business ^{note(c)}		
Effect of changes in expected long-term rates of return	(62)	(1,113)
Effect of changes in risk discount rates	24	627
Other changes	(8)	(84)
	(46)	(570)
	48	(292)

Notes

(a) For shareholder-backed annuity business the overall effect of changes in expected long-term rates of return and risk discount rates for the years shown above reflect the combined effects of the changes in economic assumptions, which incorporate a default allowance for both best estimate defaults and in respect of the additional credit risk provisions (as shown in note 17(iii)).

(b) The change in the insurance tax regime was enacted on 17 July 2012. The effect of £(46) million reflects the change in pattern of taxable profits for shareholder-backed annuity business arising from the acceleration of tax payments due to the altered timing of relief on regulatory basis provisions.

(c) For with-profits and other business the total charge in 2012 of £(46) million reflects the changes in fund earned rates and risk discount rate (as shown in note 17(iii)), driven by the 20 basis points decrease in the gilt rate.

For 2011, the charge of £(1,113) million for the effect of changes in expected long-term rates of return arises from the reduction in fund earned rates, driven by the 1.5 per cent decrease in gilt rates and reduction in additional returns assumed on corporate bonds, reflecting changes in asset mix. The credit of £627 million for the effect of changes in risk discount rates reflects the 1.35 per cent reduction in the risk discount rate, driven by the 1.5 per cent decrease in gilt rates, partly offset by the impact of an increase in beta for with-profits business. Beta allowances are explained in note 1(b)(iii).

9 Analysis of movement in free surplus

Free surplus is the excess of the net worth over the capital required to support the covered business. Where appropriate, adjustments are made to the regulatory basis net worth from the local regulatory basis so as to include backing assets movements at fair value rather than cost so as to comply with the EEV Principles.

	2012 £m		
	Long-term business note 14	Asset management and UK general insurance commission note (iii)	Free surplus of long-term business, asset management and UK general insurance commission
Long-term business and asset management operations ^{note (i)}			
Underlying movement:			
Investment in new business ^{note (ii)}	(618)	–	(618)
Business in force:			
Expected in-force cash flows (including expected return on net assets)	2,019	386	2,405
Effects of changes in operating assumptions, operating experience variances and other operating items	295	–	295
	1,696	386	2,082
Changes in non-operating items ^{note (iv)}	(163)	84	(79)
Gain on dilution of Group's holdings ^{note 4}	–	42	42
Effect of acquisition of REALIC ^{notes 5 and (v)}	(169)	–	(169)
	1,364	512	1,876
Net cash flows to parent company ^{note (vi)}	(921)	(279)	(1,200)
Exchange movements, timing differences and other items ^{note (vii)}	(325)	(83)	(408)
Net movement in free surplus	118	150	268
Balance at 1 January 2012	2,839	582	3,421
Balance at 31 December 2012	2,957	732	3,689
Representing:			
Asia operations	974	207	1,181
US operations	1,211	108	1,319
UK operations	772	417	1,189
	2,957	732	3,689
Balance at 1 January 2012			
Representing:			
Asia operations	1,067	211	1,278
US operations	1,220	113	1,333
UK operations	552	258	810
	2,839	582	3,421

Notes

- (i) All figures are shown net of tax.
- (ii) Free surplus invested in new business is for the effects of setting aside required capital and incurring acquisition costs.
- (iii) For the purposes of this analysis, free surplus for asset management operations and the UK general insurance commission is taken to be IFRS basis shareholders' equity.
- (iv) Changes in non-operating items
This represents short-term fluctuations in investment returns, the shareholders' share of actuarial and other gains and losses on defined benefit pension schemes and the effect of changes in economic assumptions for long-term business operations.
Short-term fluctuations in investment returns primarily reflect temporary market movements on the portfolio of investments held by the Group's shareholder-backed operations.
- (v) The effect on free surplus of the purchase of REALIC reflects the difference between the consideration of £370 million and the free surplus of REALIC at the acquisition date.
- (vi) Net cash flows to parent company for long-term business operations reflect the flows as included in the holding company cash flow at transaction rates.

Notes on the EEV basis results continued

9 Analysis of movement in free surplus continued

(vii) Exchange movements, timing differences and other items represent:

	2012 £m		
	Long-term business	Asset management and UK general insurance commission	Total
Exchange movements ^{note 14}	(92)	(13)	(105)
Mark to market value movements on Jackson assets backing surplus and required capital ^{note 14}	35	–	35
Other ^{note (viii)}	(268)	(70)	(338)
	(325)	(83)	(408)

(viii) Other primarily reflects the effect of repayment of contingent loan funding, as shown in note 14(ii), together with intra-group loans, timing differences and other non-cash items.

10 Net core structural borrowings of shareholder-financed operations

	31 December 2012 £m			31 December 2011 £m		
	IFRS basis	Mark to market value adjustment note	EEV basis at market value	IFRS basis	Mark to market value adjustment note	EEV basis at market value
Holding company* cash and short-term investments	(1,380)	–	(1,380)	(1,200)	–	(1,200)
Core structural borrowings – central funds	3,126	536	3,662	3,201	187	3,388
Holding company net borrowings	1,746	536	2,282	2,001	187	2,188
Core structural borrowings – Prudential Capital	275	–	275	250	–	250
Core structural borrowings – Jackson	153	43	196	160	17	177
Net core structural borrowings of shareholder-financed operations	2,174	579	2,753	2,411	204	2,615

* Including central finance subsidiaries.

Note

The movement in the mark to market value adjustment represents:

	31 December 2012 £m	31 December 2011 £m
Mark to market movement in balance sheet:		
Beginning of year	204	190
Change reflected in:		
Income statement	380	14
Foreign exchange effects	(5)	–
End of year	579	204

11 Reconciliation of movement in shareholders' equity (excluding non-controlling interests)

	2012 £m					
	Long-term business operations					Group total
	Asia operations note (i)	US operations	UK insurance operations	Total long-term business operations	Other operations note (i)	
Operating profit (based on longer-term investment returns)						
Long-term business:						
New business ^{note 2}	1,266	873	313	2,452	–	2,452
Business in force ^{note 3}	694	737	553	1,984	–	1,984
	1,960	1,610	866	4,436	–	4,436
Asset management	–	–	–	–	485	485
Other results	(7)	(2)	(29)	(38)	(562)	(600)
Operating profit based on longer-term investment returns	1,953	1,608	837	4,398	(77)	4,321
Short-term fluctuations in investment returns ^{note 6}	395	(254)	315	456	82	538
Mark to market value movements on core borrowings ^{note 10}	–	(28)	–	(28)	(352)	(380)
Shareholders' share of actuarial and other gains and losses on defined benefit pension schemes ^{note 7}	–	–	(16)	(16)	78	62
Effect of changes in economic assumptions ^{note 8}	(149)	85	48	(16)	–	(16)
Gain on dilution of Group's holdings ^{note 4}	–	–	–	–	42	42
Gain on acquisition of REALIC ^{note 5}	–	453	–	453	–	453
Profit before tax (including actual investment returns)	2,199	1,864	1,184	5,247	(227)	5,020
Tax (charge) credit attributable to shareholders' profit: ^{note 12}						
Tax on operating profit	(420)	(513)	(168)	(1,101)	(44)	(1,145)
Tax on short-term fluctuations in investment returns	(60)	91	(72)	(41)	(3)	(44)
Tax on shareholders' share of actuarial and other gains and losses on defined benefit pension schemes	–	–	4	4	(18)	(14)
Tax on effect of changes in economic assumptions	36	(29)	(11)	(4)	–	(4)
Total tax charge	(444)	(451)	(247)	(1,142)	(65)	(1,207)
Profit (loss) for the year	1,755	1,413	937	4,105	(292)	3,813
Other movements						
Exchange movements on foreign operations and net investment hedges, net of tax	(271)	(252)	–	(523)	54	(469)
Intra-group dividends (including statutory transfers) ^{note (ii)}	(544)	(252)	(207)	(1,003)	1,003	–
Investment in operations ^{note (ii)}	4	–	–	4	(4)	–
External dividends	–	–	–	–	(655)	(655)
Reserve movements in respect of share-based payments	–	–	–	–	42	42
Other transfers	8	6	(16)	(2)	2	–
Treasury shares movements	–	–	–	–	23	23
New share capital subscribed	–	–	–	–	17	17
Mark to market value movements on Jackson assets backing surplus and required capital net of tax	–	35	–	35	–	35
Net increase in shareholders' equity	952	950	714	2,616	190	2,806
Shareholders' equity at 1 January 2012 ^{note (i)}	8,510	5,082	6,058	19,650	(13)	19,637
Shareholders' equity at 31 December 2012^{note (i)}	9,462	6,032	6,772	22,266	177	22,443

Notes on the EEV basis results continued

11 Reconciliation of movement in shareholders' equity (excluding non-controlling interests) continued

	2012 £m						
	Long-term business operations					Other operations note (i)	Group total
	Asia operations note (i)	US operations	UK insurance operations	Total long-term business operations			
Representing:							
Statutory IFRS basis shareholders' equity	2,290	4,343	3,008	9,641	718	10,359	
Additional retained profit (loss) on an EEV basis ^{note (iii)}	7,172	1,689	3,764	12,625	(541)	12,084	
EEV basis shareholders' equity	9,462	6,032	6,772	22,266	177	22,443	
Balance at 1 January 2012							
Representing:							
Statutory IFRS basis shareholders' equity	2,071	3,761	2,552	8,384	180	8,564	
Additional retained profit (loss) on an EEV basis ^{note (iii)}	6,439	1,321	3,506	11,266	(193)	11,073	
EEV basis shareholders' equity	8,510	5,082	6,058	19,650	(13)	19,637	

Notes

- (i) For the purposes of the table above, goodwill related to Asia long-term operations is included in Other operations.
- (ii) Intra-group dividends (including statutory transfers) represent dividends that have been declared in the year and amounts accrued in respect of statutory transfers. For long-term business operations, the difference between the net amount of £999 million for intra-group dividends (including statutory transfers) and investment in operations shown above and the net cash flows to parent company of £921 million (as shown in note 9) primarily relates to intra-group loans, timing differences arising on statutory transfers and other non-cash items.
- (iii) The additional retained profit on an EEV basis for Other operations primarily represents the mark to market value adjustment for holding company net borrowings of a charge of £(536) million (2011: £(187) million) (as shown in note 10).

12 Tax attributable to shareholders' profit

The tax charge comprises:

	2012 £m	2011 £m
Tax charge on operating profit based on longer-term investment returns:		
Long-term business:		
Asia operations	420	402
US operations	513	487
UK insurance operations	168	221
	1,101	1,110
Other operations	44	(66)
Total tax charge on operating profit based on longer-term investment returns	1,145	1,044
Tax charge (credit) on items not included in operating profit:		
Tax charge (credit) on short-term fluctuations in investment returns	44	(210)
Tax charge on shareholders' share of actuarial and other gains and losses on defined benefit pension schemes	14	6
Tax charge (credit) on effect of changes in economic assumptions	4	(64)
Total tax charge (credit) on items not included in operating profit	62	(268)
Tax charge on profit attributable to shareholders (including tax on actual investment returns)	1,207	776

13 Earnings per share (EPS)

	2012 £m		2011 £m	
	Operating	Total*	Operating	Total
Profit before tax	4,321	5,020	3,978	2,922
Tax	(1,145)	(1,207)	(1,044)	(776)
Non-controlling interests	–	–	(4)	(4)
Profit after tax and non-controlling interests	3,176	3,813	2,930	2,142
EPS (pence)	125.0p	150.1p	115.7p	84.6p
Average number of shares (millions)	2,541	2,541	2,533	2,533

* Total profit in 2012 includes a gain of £453 million relating to the acquisition of REALIC - see note 5.

Notes on the EEV basis results continued

14 Reconciliation of net worth and value of in-force for long-term business^{note(i)}

	2012 £m				
	Free surplus note 9	Required capital	Total net worth	Value of in-force business note (vi)	Total long-term business operations
Group					
Shareholders' equity at 1 January 2012	2,839	3,447	6,286	13,364	19,650
New business contribution ^{notes (iii), (iv)}	(618)	454	(164)	1,955	1,791
Existing business – transfer to net worth	1,923	(324)	1,599	(1,599)	–
Expected return on existing business	96	85	181	929	1,110
Changes in operating assumptions and experience variances	295	50	345	51	396
Changes in non-operating assumptions and experience variances	(163)	109	(54)	409	355
Gain on acquisition of REALIC ^{notes 5 and (v)}	(169)	169	–	453	453
Profit after tax from long-term business	1,364	543	1,907	2,198	4,105
Exchange movements on foreign operations and net investment hedges	(92)	(92)	(184)	(339)	(523)
Intra-group dividends (including statutory transfers) and investment in operations ^{note (ii)}	(1,187)	–	(1,187)	188	(999)
Mark to market value movements on Jackson assets backing surplus and required capital	35	–	35	–	35
Other transfers from net worth	(2)	–	(2)	–	(2)
Shareholders' equity at 31 December 2012	2,957	3,898	6,855	15,411	22,266
Representing:					
Asia operations					
Shareholders' equity at 1 January 2012	1,067	860	1,927	6,583	8,510
New business contribution ^{note (iv)}	(292)	97	(195)	1,177	982
Existing business – transfer to net worth	635	(3)	632	(632)	–
Expected return on existing business	56	–	56	413	469
Changes in operating assumptions and experience variances	80	25	105	(23)	82
Changes in non-operating assumptions and experience variances	114	16	130	92	222
Profit after tax from long-term business	593	135	728	1,027	1,755
Exchange movements on foreign operations and net investment hedges	(38)	(25)	(63)	(208)	(271)
Intra-group dividends (including statutory transfers) and investment in operations ^{note (ii)}	(656)	–	(656)	116	(540)
Other transfers to net worth	8	–	8	–	8
Shareholders' equity at 31 December 2012	974	970	1,944	7,518	9,462

	2012 £m				
	Free surplus note 9	Required capital	Total net worth	Value of in-force business note (vi)	Total long-term business operations
US operations					
Shareholders' equity at 1 January 2012	1,220	1,371	2,591	2,491	5,082
New business contribution ^{note (iv)}	(281)	271	(10)	578	568
Existing business – transfer to net worth	777	(242)	535	(535)	–
Expected return on existing business	40	48	88	180	268
Changes in operating assumptions and experience variances	219	19	238	21	259
Changes in non-operating assumptions and experience variances	(330)	31	(299)	164	(135)
Gain on acquisition of REALIC ^{notes 5 and (v)}	(169)	169	–	453	453
Profit after tax from long-term business	256	296	552	861	1,413
Exchange movements on foreign operations and net investment hedges	(54)	(67)	(121)	(131)	(252)
Intra-group dividends (including statutory transfers)	(252)	–	(252)	–	(252)
Mark to market value movements on Jackson assets backing surplus and required capital	35	–	35	–	35
Other transfers to net worth	6	–	6	–	6
Shareholders' equity at 31 December 2012	1,211	1,600	2,811	3,221	6,032
UK insurance operations					
Shareholders' equity at 1 January 2012	552	1,216	1,768	4,290	6,058
New business contribution ^{note (iv)}	(45)	86	41	200	241
Existing business – transfer to net worth	511	(79)	432	(432)	–
Expected return on existing business	–	37	37	336	373
Changes in operating assumptions and experience variances	(4)	6	2	53	55
Changes in non-operating assumptions and experience variances	53	62	115	153	268
Profit after tax from long-term business	515	112	627	310	937
Intra-group dividends (including statutory transfers) ^{note (ii)}	(279)	–	(279)	72	(207)
Other transfers from net worth	(16)	–	(16)	–	(16)
Shareholders' equity at 31 December 2012	772	1,328	2,100	4,672	6,772

Notes on the EEV basis results continued

14 Reconciliation of net worth and value of in-force for long-term business^{note(i)} continued**Notes**

- (i) All figures are shown net of tax.
- (ii) The amounts shown in respect of free surplus and the value of in-force business for Asia and UK insurance operations for intra-group dividends (including statutory transfers) and investment in operations include the repayment of contingent loan funding. Contingent loan funding represents amounts whose repayment to the lender is contingent upon future surpluses emerging from certain contracts specified under the arrangement. If insufficient surplus emerges on those contracts, there is no recourse to other assets of the Group and the liability is not payable to the degree of shortfall.
- (iii) The movements arising from new business contribution are as follows:

	2012 £m	2011 £m
Free surplus invested in new business	(618)	(553)
Increase in required capital	454	406
Reduction in total net worth	(164)	(147)
Increase in the value associated with new business	1,955	1,683
Total post-tax new business contribution	1,791	1,536

- (iv) Free surplus invested in new business is as follows:

	2012 £m				2011 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
Pre-tax new business contribution ^{note 2}	1,266	873	313	2,452	1,076	815	260	2,151
Tax	(284)	(305)	(72)	(661)	(265)	(285)	(65)	(615)
Post-tax new business contribution	982	568	241	1,791	811	530	195	1,536
Free surplus invested in new business	(292)	(281)	(45)	(618)	(297)	(202)	(54)	(553)
Post-tax new business contribution per £1 million free surplus invested	3.4	2.0	5.4	2.9	2.7	2.6	3.6	2.8

- (v) The effect on free surplus of the purchase of REALIC reflects the difference between the consideration of £370 million and the free surplus of REALIC at the acquisition date. The REALIC free surplus represents the excess of net worth over required capital. The incremental value of in-force of £453 million represents the amount which is recognised on the EEV reporting basis over and above the net worth.
- (vi) The value of in-force business includes the value of future margins from current in-force business less the cost of holding required capital and represents:

	31 December 2012 £m				31 December 2011 £m			
	Asia operations	US operations	UK insurance operations note	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
Value of in-force business before deduction of cost of capital and time value of guarantees	7,903	3,992	4,916	16,811	6,922	3,222	4,598	14,742
Cost of capital	(352)	(121)	(244)	(717)	(317)	(135)	(241)	(693)
Cost of time value of guarantees	(33)	(650)	–	(683)	(22)	(596)	(67)	(685)
Net value of in-force business	7,518	3,221	4,672	15,411	6,583	2,491	4,290	13,364

Note

A provision for the cost of time value of options and guarantees for UK insurance operations is no longer required.

15 Expected transfer of value of in-force business to free surplus

The discounted value of in-force business and required capital can be reconciled to the 2012 and 2011 totals in the tables below for the emergence of free surplus as follows:

	2012 £m	2011 £m
Required capital ^{note14}	3,898	3,447
Value of in-force (VIF) ^{note14}	15,411	13,364
Add back: deduction for cost of time value of guarantees ^{note14}	683	685
Other items ^{note}	(1,401)	(1,214)
	18,591	16,282

Note

'Other items' represent amounts incorporated into VIF where there is no definitive timeframe for when the payments will be made or receipts received. In particular, other items includes the deduction of the value of the shareholders' interest in the estate, the value of which is derived by increasing final bonus rates so as to exhaust the estate over the lifetime of the in-force with-profits business. This is an assumption to give an appropriate valuation. To be conservative this item is excluded from the expected free surplus generation profile below.

Cash flows are projected on a deterministic basis and are discounted at the appropriate risk discount rate. The modelled cash flows use the same methodology underpinning the Group's embedded value reporting and so is subject to the same assumptions and sensitivities.

The table below shows how the VIF generated by the in-force business and the associated required capital is modelled as emerging into free surplus over future years.

	2012 £m						
	2012 total as shown above	Expected period of conversion of future post-tax distributable earnings and required capital flows to free surplus					
		1-5 years	6-10 years	11-15 years	16-20 years	21-40 years	40+ years
Asia operations	8,410	2,987	1,873	1,181	840	1,297	232
US operations	5,439	2,723	1,607	698	301	110	–
UK insurance operations	4,742	1,890	1,185	756	456	445	10
Total	18,591	7,600	4,665	2,635	1,597	1,852	242
	100%	41%	25%	14%	9%	10%	1%

	2011 £m						
	2011 total as shown above	Expected period of conversion of future post-tax distributable earnings and required capital flows to free surplus					
		1-5 years	6-10 years	11-15 years	16-20 years	21-40 years	40+ years
Asia operations	7,387	2,582	1,596	1,012	732	1,262	203
US operations	4,267	2,241	1,287	490	173	76	–
UK insurance operations	4,628	1,864	1,166	743	453	394	8
Total	16,282	6,687	4,049	2,245	1,358	1,732	211
	100%	41%	25%	14%	8%	11%	1%

Notes on the EEV basis results continued

16 Sensitivity of results to alternative assumptions

(a) Sensitivity analysis - economic assumptions

The tables below show the sensitivity of the embedded value as at 31 December 2012 (31 December 2011) and the new business contribution after the effect of required capital for 2012 and 2011 to:

- 1 per cent increase in the discount rates;
- 1 per cent increase and decrease in interest rates, including all consequential changes (assumed investment returns for all asset classes, market values of fixed interest assets, risk discount rates);
- 1 per cent rise in equity and property yields;
- 10 per cent fall in market value of equity and property assets (embedded value only);
- Holding company statutory minimum capital (by contrast to required capital), (embedded value only);
- 5 basis point increase in UK long-term expected defaults; and
- 10 basis point increase in the liquidity premium for UK annuities.

In each sensitivity calculation, all other assumptions remain unchanged except where they are directly affected by the revised economic conditions.

New business contribution

	2012 £m				2011 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
New business contribution^{note 2}	1,266	873	313	2,452	1,076	815	260	2,151
Discount rates – 1% increase	(163)	(40)	(38)	(241)	(139)	(45)	(36)	(220)
Interest rates – 1% increase	33	104	6	143	2	81	5	88
Interest rates – 1% decrease	(106)	(161)	(11)	(278)	(72)	(117)	(6)	(195)
Equity/property yields – 1% rise	48	97	13	158	50	92	11	153
Long-term expected defaults – 5 bps increase	–	–	(10)	(10)	–	–	(8)	(8)
Liquidity premium – 10 bps increase	–	–	20	20	–	–	16	16

Embedded value of long-term business operations

	31 December 2012 £m				31 December 2011 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
Shareholders' equity^{note 11}	9,462	6,032	6,772	22,266	8,510	5,082	6,058	19,650
Discount rates – 1% increase	(879)	(209)	(482)	(1,570)	(771)	(147)	(443)	(1,361)
Interest rates – 1% increase	(218)	(124)	(328)	(670)	(376)	(106)	(343)	(825)
Interest rates – 1% decrease	85	49	399	533	253	58	400	711
Equity/property yields – 1% rise	328	230	202	760	329	185	205	719
Equity/property market values – 10% fall	(159)	(69)	(309)	(537)	(159)	16	(326)	(469)
Statutory minimum capital	108	89	4	201	114	92	4	210
Long-term expected defaults – 5 bps increase	–	–	(112)	(112)	–	–	(98)	(98)
Liquidity premium – 10 bps increase	–	–	224	224	–	–	196	196

The sensitivities shown above are for the impact of instantaneous changes on the embedded value of long-term business operations and include the combined effect on the value of in-force business and net assets at the balance sheet dates indicated. If the change in assumption shown in the sensitivities were to occur, then the effect shown above would be recorded within two components of the profit analysis for the following year. These are for the effect of economic assumption changes and, to the extent that asset value changes are included in the sensitivities, within short-term fluctuations in investment returns. In addition to the sensitivity effects shown above, the other components of the profit for the following year would be calculated by reference to the altered assumptions, for example new business contribution and unwind of discount, together with the effect of other changes such as altered corporate bond spreads. In addition for Jackson, the fair value movements on assets backing surplus and required capital which are taken directly to shareholders' equity would also be affected by changes in interest rates.

(b) Sensitivity analysis - non-economic assumptions

The tables below show the sensitivity of the embedded value as at 31 December 2012 (31 December 2011) and the new business contribution after the effect of required capital for 2012 and 2011 to:

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

New business contribution

	2012 £m				2011 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
New business contribution^{note2}	1,266	873	313	2,452	1,076	815	260	2,151
Maintenance expenses – 10% decrease	32	13	4	49	26	11	7	44
Lapse rates – 10% decrease	95	26	7	128	92	24	10	126
Mortality and morbidity – 5% decrease	76	5	(11)	70	60	9	(9)	60
Change representing effect on:								
Life business	76	5	3	84	60	9	3	72
UK annuities	–	–	(14)	(14)	–	–	(12)	(12)

Embedded value of long-term business operations

	31 December 2012 £m				31 December 2011 £m			
	Asia operations	US operations	UK insurance operations	Total long-term business operations	Asia operations	US operations	UK insurance operations	Total long-term business operations
Shareholders' equity^{note11}	9,462	6,032	6,772	22,266	8,510	5,082	6,058	19,650
Maintenance expenses – 10% decrease	137	50	56	243	117	44	52	213
Lapse rates – 10% decrease	333	225	66	624	342	157	65	564
Mortality and morbidity – 5% decrease	387	178	(273)	292	289	92	(227)	154
Change representing effect on:								
Life business	387	178	13	578	289	92	12	393
UK annuities	–	–	(286)	(286)	–	–	(239)	(239)

(c) Effect of proposed change in UK corporation tax rate

The proposed rate change from 23 per cent to 22 per cent announced in the 2012 Budget on 21 March 2012 has been reduced by a further 1 per cent to 21 per cent in the Autumn Statement on 5 December 2012. The change from 23 per cent to 21 per cent is expected to be effective 1 April 2014 and when substantively enacted it would have the impact of increasing the net of tax value of in-force business of UK insurance operations at 31 December 2012 by around £65 million.

(ii) US operations

	31 Dec 2012 %	31 Dec 2011 %
Assumed new business spread margins: ^{notes (a), (c)}		
Fixed annuity business*:		
January to June issues	1.4 [†]	1.75 [†]
July to December issues	1.1 [†]	1.75 [†]
Fixed index annuity business:		
January to June issues	1.75 [†]	2.25
July to December issues	1.35 [†]	2.25
Institutional business	1.25	1.0
Risk discount rate: ^{note (d)}		
Variable annuity	6.5	6.7
Non-variable annuity	4.0	4.6
Weighted average total: ^{note (b)}		
New business	6.3	6.5
In force	5.6	6.0
US 10-year treasury bond rate at end of year	1.8	1.9
Pre-tax expected long-term nominal rate of return for US equities	5.8	5.9
Equity risk premium	4.0	4.0
Expected long-term rate of inflation	2.5	2.0

* Including the proportion of variable annuity business invested in the general account.

† Grading up linearly by 25 basis points to a long-term assumption over five years.

Notes

- (a) The assumed new business spread margins shown above are the rates at inception. For fixed annuity business (including the proportion of variable annuity business invested in the general account) in both years the assumed spread margin grades up linearly by 25 basis points to the long-term assumption over five years. In 2012, for fixed index annuity business the assumed spread margin also grades up linearly by 25 basis points to the long-term assumption over five years. For fixed index annuity business in 2011 and institutional business in both years the assumption applies from inception (ie no grading).
- (b) The weighted average risk discount rates reflect the mix of business between variable annuity and non-variable annuity business. The decrease in the weighted average risk discount rates from 2011 to 2012 primarily reflects the decrease in the US 10-year treasury bond rate of 10 basis points together with the effect of the decrease in additional allowance for credit risk (as described in note (d) below).
- (c) Credit risk treatment
The projected cash flows incorporate the expected long-term spread between the earned rate and the rate credited to policyholders. The projected earned rates reflect book value yields which are adjusted over time to reflect projected reinvestment rates. Positive net cash flows are assumed to be reinvested in a mix of corporate bonds, commercial mortgages and limited partnerships. The yield on those assets is assumed to grade from the current level to a yield that allows for a long-term assumed credit spread on the reinvested assets of 1.25 per cent over 10 years. The yield also reflects an allowance for a risk margin reserve which for 2012 is 28 basis points (2011: 27 basis points) for long-term defaults (as described in note 1(b)(iii)), which represents the allowance as at the valuation date applied in the cash flow projections of the value of the in-force business.
In the event that long-term default levels are higher, then unlike for UK annuity business where policyholder benefits are not changeable, Jackson has some discretion to adjust crediting rates, subject to contract guarantee levels and general market competition considerations.
- (d) For US operations, the risk discount rates shown above include an additional allowance for a combination of credit risk premium and short-term downgrade and default allowance for general account business of 150 basis points (2011: 200 basis points) and for variable annuity business of 30 basis points (2011: 40 basis points) to reflect the fact that a proportion of the variable annuity business is allocated to the general account (as described in note 1(b)(iii)).

Notes on the EEV basis results continued

17 Assumptions continued

(iii) UK insurance operations

	31 Dec 2012 %	31 Dec 2011 %
Shareholder-backed annuity business: ^{note (d)}		
Risk discount rate:		
New business ^{note (a)}	6.9	7.7
In force ^{note (b)}	7.95	8.6
Pre-tax expected long-term nominal rate of return for shareholder-backed annuity business:		
New business	4.2	4.85
In force ^{note (b)}	3.9	4.4
Other business: ^{note (d)}		
Risk discount rate: ^{note (c)}		
New business	5.2	5.3
In force	5.6	5.65
Equity risk premium	4.0	4.0
Pre-tax expected long-term nominal rates of investment return:		
UK equities	6.3	6.5
Overseas equities	5.8 to 9.6	5.9 to 9.9
Property	5.1	5.2
Gilts	2.3	2.5
Corporate bonds	3.9	4.0
Expected long-term rate of inflation	2.9	3.0
Post-tax expected long-term nominal rate of return for the PAC with-profits fund:		
Pension business (where no tax applies)	5.0	5.1
Life business	4.35	4.4

Notes

- (a) The new business risk discount rate for shareholder-backed annuity business incorporates an allowance for best estimate defaults and additional credit risk provisions, appropriate to the new business assets, over the projected lifetime of this business. These additional provisions comprise of a credit risk premium, which is derived from Moody's data from 1970 to 2009, an allowance for a 1 notch downgrade of the portfolio subject to credit risk and an allowance for short-term defaults.
- (b) For shareholder-backed annuity business, the movements in the pre-tax long-term nominal rates of return and the risk discount rates for in-force business mainly reflect the effect of changes in asset yields.
- (c) The risk discount rates for new business and business in force for UK insurance operations other than shareholder-backed annuities reflect weighted rates based on the type of business.
- (d) Credit spread treatment
For with-profits business, the embedded value reflects the discounted value of future shareholder transfers. These transfers are directly affected by the level of projected rates of return on investments, including debt securities. The assumed earned rate for with-profit holdings of corporate bonds is defined as the risk-free rate plus an assessment of the long-term spread over gilts, net of expected long-term defaults. This approach is similar to that applied for equities and properties for which the projected earned rate is defined as the risk-free rate plus a long-term risk premium.
For UK shareholder-backed annuity business, different dynamics apply both in terms of the nature of the business and the EEV methodology applied. For this type of business the assets are generally held to maturity to match long duration liabilities. It is therefore appropriate under EEV methodology to include a liquidity premium in the economic basis used. The appropriate EEV risk discount rate is set in order to equate the EEV with a 'market consistent embedded value' including liquidity premium. The liquidity premium in the 'market consistent embedded value' is derived from the yield on the assets held after deducting an appropriate allowance for credit risk. For Prudential Retirement Income Limited, which has approximately 90 per cent of UK shareholder-backed annuity business, the allowance for credit risk for the in-force business at 31 December 2012 is made up of:
(1) 15 basis points in respect of long-term expected defaults derived by applying Moody's data from 1970 to 2009 and the definition of the credit rating used is the second highest credit rating published by Moody's, Standard and Poor's and Fitch; and
(2) 50 basis points in respect of additional provisions which comprise a credit risk premium, which is derived from Moody's data from 1970 to 2009, an allowance for a 1 notch downgrade of the portfolio subject to credit risk and an allowance for short-term defaults.
The credit assumptions used and the residual liquidity premium element of the bond spread over swap rates is as follows:

	31 December 2012 (bps)	31 December 2011 (bps)
New business*		
Bond spread over swap rates	150	139
Total credit risk allowance [†]	35	35
Liquidity premium	115	104
In-force business		
Bond spread over swap rates	161	201
Total credit risk allowance	65	66
Liquidity premium	96	135

* The new business liquidity premium is based on the weighted average of the point of sale liquidity premia.

† Specific assets are allocated to the new business for the period with the appropriate allowance for credit risk which was 35 basis points for 2012 and 2011.

The overall allowance for credit risk is prudent by comparison with historic rates of default and would be sufficient to withstand a wide range of extreme credit events over the expected lifetime of the annuity business.

Stochastic assumptions

The economic assumptions used for the stochastic calculations are consistent with those used for the deterministic calculations described above. Assumptions specific to the stochastic calculations, such as the volatilities of asset returns, reflect local market conditions and are based on a combination of actual market data, historic market data and an assessment of longer-term economic conditions. Common principles have been adopted across the Group for the stochastic asset models, for example, separate modelling of individual asset classes but with allowance for correlation between the various asset classes.

Details are given below of the key characteristics and calibrations of each model.

(iv) Asia operations

- The same asset return models as described for UK insurance operations below, appropriately calibrated, have been used for Asia operations. The principal asset classes are government and corporate bonds. Equity holdings are much lower than in the UK whilst property holdings do not represent a significant investment asset;
- The stochastic cost of guarantees is primarily only of significance for the Hong Kong, Korea, Malaysia and Singapore operations; and
- The mean stochastic returns are consistent with the mean deterministic returns for each country. The expected volatility of equity returns ranges from 18 per cent to 35 per cent, and the volatility of government bond yields ranges from 0.9 per cent to 2.3 per cent (2011: 0.9 per cent to 2.4 per cent).

(v) US operations (Jackson)

- Interest rates are projected using a log-normal generator calibrated to historical US treasury yield curves;
- Corporate bond returns are based on treasury securities plus a spread that has been calibrated to current market conditions and varies by credit quality; and
- Variable annuity equity returns and bond interest rates have been stochastically generated using a log-normal model with parameters determined by reference to historical data. The volatility of equity fund returns ranges from 19 per cent to 32 per cent for all periods throughout these results, depending on the risk class and the class of equity, and the standard deviation of interest rates ranges from 2.2 per cent to 2.5 per cent (2011: 2.1 per cent to 2.4 per cent).

(vi) UK insurance operations

- Interest rates are projected using a two-factor model calibrated to the initial market yield curve;
- The risk premium on equity assets is assumed to follow a log-normal distribution;
- The corporate bond return is calculated as the return on a zero-coupon bond plus a spread. The spread process is a mean reverting stochastic process; and
- Property returns are modelled in a similar fashion to corporate bonds, namely as the return on a risk-free bond, plus a risk premium, plus a process representative of the change in residual values and the change in value of the call option on rents.

Mean returns have been derived as the annualised arithmetic average return across all simulations and durations.

For each projection year, standard deviations have been calculated by taking the square root of the annualised variance of the returns over all the simulations. These have been averaged over all durations in the projection. For equity and property, the standard deviations relate to the total return on these assets. The standard deviations applied for both years are as follows:

	31 Dec 2012 %	31 Dec 2011 %
Equities:		
UK	20	20
Overseas	18	18
Property	15	15

Notes on the EEV basis results continued

17 Assumptions continued

(vii) Demographic assumptions

Persistence, mortality and morbidity assumptions are based on an analysis of recent experience but also reflect expected future experience. Where relevant, when calculating the time value of financial options and guarantees, policyholder withdrawal rates vary in line with the emerging investment conditions according to management's expectations.

(viii) Expense assumptions

Expense levels, including those of service companies that support the Group's long-term business operations, are based on internal expense analysis investigations and are appropriately allocated to acquisition of new business and renewal of in-force business. Exceptional expenses are identified and reported separately. For mature business, it is Prudential's policy not to take credit for future cost reduction programmes until the savings have been delivered. For businesses which are currently sub-scale (China, Malaysia Takaful and Taiwan) and India (where the business model is being adapted in response to the regulatory changes introduced in recent years), expense overruns are permitted provided these are short-lived.

For Asia operations, the expenses comprise costs borne directly and recharged costs from the Asia regional head office, that are attributable to covered business. The assumed future expenses for these operations also include projections of these future recharges. Development expenses are charged as incurred.

Corporate expenditure comprises:

- Expenditure for Group head office, to the extent not allocated to the PAC with-profits funds, together with Solvency II implementation and restructuring costs, which are charged to the EEV basis results as incurred; and
- Expenditure of the Asia regional head office that is not allocated to the covered business or asset management operations, and is charged as incurred. These costs are primarily for corporate related activities and included within corporate expenditure.

(ix) Taxation and other legislation

Current taxation and other legislation have been assumed to continue unaltered except where changes have been announced and substantively enacted in the year.

The sensitivity of the embedded value as at 31 December 2012 to the effect of the forthcoming change in the UK corporate tax rates is shown in note 16(c).

18 New business premiums and contributions^{note(i)}

	Single		Regular		Annual premium and contribution equivalents (APE)		Present value of new business premiums (PVNBP)	
	2012 £m	2011 £m	2012 £m	2011 £m	2012 £m	2011 £m	2012 £m	2011 £m
Group insurance operations								
Asia	1,568	1,456	1,740	1,514	1,897	1,660	10,544	8,910
US	14,504	12,562	12	19	1,462	1,275	14,600	12,720
UK	6,286	4,871	207	259	836	746	7,311	6,111
Group total	22,358	18,889	1,959	1,792	4,195	3,681	32,455	27,741
Asia insurance operations								
Hong Kong	157	180	380	313	396	331	2,316	2,023
Indonesia	359	250	410	338	446	363	2,097	1,435
Malaysia	98	79	208	215	218	223	1,388	1,225
Philippines	172	95	28	20	45	30	254	153
Singapore	399	371	261	198	301	235	2,314	1,855
Thailand	12	11	36	26	37	27	140	102
Vietnam	1	1	44	42	45	42	159	143
SE Asia operations including Hong Kong	1,198	987	1,367	1,152	1,488	1,251	8,668	6,936
China ^{note(ii)}	37	46	53	54	56	59	277	294
Korea	94	71	86	94	95	101	438	542
Taiwan	172	217	138	126	156	148	723	672
India ^{note(iii)}	67	135	96	88	102	101	438	466
Total Asia operations	1,568	1,456	1,740	1,514	1,897	1,660	10,544	8,910
US insurance operations								
Fixed annuities	581	472	–	–	58	47	581	472
Fixed index annuities	1,094	934	–	–	109	93	1,094	934
Life	6	10	12	19	12	20	102	168
Variable annuities	12,445	10,909	–	–	1,245	1,091	12,445	10,909
Wholesale	378	237	–	–	38	24	378	237
Total US insurance operations	14,504	12,562	12	19	1,462	1,275	14,600	12,720
UK and Europe insurance operations								
Direct and partnership annuities	297	328	–	–	30	33	297	328
Intermediated annuities	653	241	–	–	65	24	653	241
Internal vesting annuities	1,456	1,223	–	–	146	122	1,456	1,223
Total individual annuities	2,406	1,792	–	–	241	179	2,406	1,792
Corporate pensions	303	184	159	215	189	233	1,045	1,224
Onshore bonds	2,275	1,779	–	–	228	178	2,277	1,781
Other products	894	780	48	44	137	122	1,175	978
Wholesale	408	336	–	–	41	34	408	336
Total UK and Europe insurance operations	6,286	4,871	207	259	836	746	7,311	6,111
Group total	22,358	18,889	1,959	1,792	4,195	3,681	32,455	27,741

Notes

- (i) The tables shown above are provided as an indicative volume measure of transactions undertaken in the reporting period that have the potential to generate profits for shareholders. The amounts shown are not, and not intended to be, reflective of premium income recorded in the IFRS income statement.
- (ii) New business in China is included at Prudential's 50 per cent interest in the China life operation.
- (iii) New business in India is included at Prudential's 26 per cent interest in the India life operation.

Notes on the EEV basis results continued

19 Other developments

Acquisition of Thanachart Life Assurance Company Limited

On 5 November 2012, Prudential plc, through its subsidiary Prudential Life Assurance (Thailand) Public Company Limited (Prudential Thailand) entered into an agreement to acquire 100 per cent of Thanachart Life Assurance Company Limited (Thanachart Life), a wholly-owned life insurance subsidiary of Thanachart Bank Public Company limited (Thanachart Bank). The consideration for Thanachart Life is THB 17.5 billion (£352 million at the year end exchange rate) settled in cash on completion, with a further payment of THB 0.5 billion (£10 million) payable 12 months after completion, subject to a post-completion adjustment to reflect the net asset value as at the completion date. The transaction is subject to regulatory approval and is expected to close in the first half of 2013. Upon completion of the transaction, Thanachart Life will become a wholly-owned subsidiary of Prudential Thailand.

As part of the deal, Prudential Thailand and Thanachart Bank have entered into an agreement to establish an exclusive 15-year partnership to develop jointly their bancassurance business in Thailand. This transaction builds on Prudential's strategy of focusing on the highly attractive markets of South-east Asia and is in line with the Group's multichannel distribution strategy.