# RISK AND CAPITAL MANAGEMENT

As a provider of financial services, including insurance, the management of risk lies at the heart of our business. As a result, effective risk management capabilities represent a key source of competitive advantage for our Group.

The Group's risk appetite framework sets out our appetite for risk exposures as well as our approach to risk management and return optimisation. Under this approach, we monitor our risk profile continuously against agreed limits. Our main strategies for managing and mitigating risk include asset liability management, using derivatives to hedge relevant market risks, and implementing reinsurance and corporate insurance programmes.

Our risk exposure and approach to risk management were described in detail in our 2010 year-end report and remain valid.

#### 1 Financial risks

#### a Market risk

#### i Equity risk

In the UK business, most of our equity exposure is incurred in the with-profits fund, which includes a large inherited estate estimated at £6.9 billion as at 30 June 2011 (30 June 2010: £5.9 billion), which can absorb market fluctuations and protect the fund's solvency. The inherited estate itself is partially protected against falls in equity markets through an active hedging policy.

In Asia, a high proportion of our in-force book is made up of unit-linked products with limited shareholder exposure to equities. We have minimal direct shareholder exposure to Asian equity markets outside our unit-linked holdings.

In the US, where we are a leading provider of variable annuities, there are well-understood risks associated with the guarantees embedded in our products. We provide guaranteed minimum death benefits (GMDB) on all policies in this class, guaranteed minimum withdrawal benefits (GMWB) on 75 per cent of the book, and guaranteed minimum income benefits (GMIB) on only four per cent. To protect the shareholders against the volatility introduced by these embedded options, we use both a comprehensive hedging programme and reinsurance. Due to the inability to reinsure or hedge the GMIB economically, Jackson ceased offering this benefit in 2009.

In our variable annuity sales activities, we focus on meeting the needs of conservative and risk averse customers who are seeking reliable income in retirement, and who display little tendency to arbitrage their guarantees. These customers generally select conservative investment options. We are able to meet the needs of these customers because our unique and market-leading operational platform allows us to tailor more than 3,200 product combinations.

It is our philosophy not to compete on price. Our individual guarantees tend to be more expensive than the market average because we seek to sell at a price sufficient to fund the cost we incur to hedge or reinsure our risks.

We use a macro approach to hedging that covers the entire risk in the US business. Within this macro approach we make use of the natural offsets that exist between the variable annuity guarantees and the fixed index annuity book, and then use a combination of OTC options and futures to hedge the residual risk, allowing for significant market shocks and limiting the amount of capital we are putting at risk. Internal positions are generally netted before any external hedge positions are considered. The hedging programme also covers the fees on variable annuity guarantees.

Jackson hedges the economics of its products rather than the accounting result. This focus means that we sometimes accept a degree of variability in our accounting results in order to ensure we achieve the appropriate economic result. Accordingly, while its hedges are effective on an economic basis, due to different accounting treatment for the hedges and some of the underlying hedged items on an IFRS basis, the reported income effect is more variable.

#### ii Interest rate risk

Interest rate risk arises primarily from Prudential's investments in long-term debt and fixed income securities. Interest rate risk also exists in policies that carry investment guarantees on early surrender or at maturity, where claim values can become higher than the value of backing assets as a result of rises or falls in interest rates.

In the US, there is interest rate risk across the portfolio. The majority of Jackson's fixed annuity and life liabilities allow for an annual reset of the crediting rate, which provides for a greater level of discretion in determining the amount of interest rate risk to assume. The primary concerns with these liabilities relate to potential surrenders when rates increase and, in a low interest environment, the minimum guarantees required by state law. With its large fixed annuity and fixed index annuity books, Jackson has natural offsets for its variable annuity interest-rate related risks. Jackson manages interest rate exposure through a combination of interest rate swaps and interest rate options.

In the UK, the investment policy for the shareholder-backed annuity business is to match the annuity payments with the cash flows from investments. As a result, assets and liabilities are closely matched by duration. The impact on profit of any residual cash flow mismatching can be adversely affected by changes in interest rates; therefore the mismatching position is regularly monitored.

The exposure to interest rate risk arising from Asia is at modest levels.

#### iii Foreign exchange risk

Prudential principally operates in the UK, the US, and in 13 countries in Asia. The geographical diversity of our businesses means that we are inevitably subject to the risk of exchange rate fluctuations. Prudential's international operations in the US and Asia, which represent a significant proportion of our operating profit and shareholders' funds, generally write policies and invest in assets denominated in local currency. Although this practice limits the effect of exchange rate fluctuations on local operating results, it can lead to significant fluctuations in our consolidated financial statements when results are expressed in pounds sterling.

We do not generally seek to hedge foreign currency revenues, as these are substantially retained locally to support the growth of the Group's business and meet local regulatory and market requirements. However, in cases where a surplus arising in an overseas operation supports Group capital or shareholders' interest, this exposure is hedged if it is economically optimal to do so. Currency borrowings, swaps and other derivatives are used to manage exposures.

#### b Credit risk

In addition to business unit operational limits on credit risk, we monitor closely our counterparty exposures at Group level, highlighting those that are large or of concern. Where appropriate, we will reduce our exposure, purchase credit protection or make use of collateral arrangements to control our levels of credit risk.

### Debt portfolio

Our debt portfolio on an IFRS basis was £117.2 billion at 30 June 2011. £54.3 billion of these assets backed shareholder business, of which 95 per cent were investment grade, compared to 95 per cent at 30 June 2010. Sovereign debt represented 15 per cent of the debt portfolio backing shareholder business, or £8.4 billion, at 30 June 2011. 69 per cent of this was rated AAA and 93 per cent investment grade. Shareholder-backed sovereign exposures were £1.9 billion to the US, £2.8 billion to the UK, £0.7 billion to Europe and £3.0 billion to the rest of the world, predominately Asia. In terms of exposure to Europe, of which 93 per cent were AAA rated, the exposure in respect of Germany was £616 million, Italy was £52 million and Spain was £1 million whilst there was no sovereign exposure to Greece, Portugal or Ireland.

In terms of shareholder exposures to the bank debt of Portugal, Ireland, Italy, Greece and Spain (PIIGS), we held £341 million at 30 June 2011. The £341 million bank debt exposure was £34 million to Portugal, £15 million to Ireland, £138 million to Italy and £154 million to Spain. The £341 million comprised £46 million senior debt, £30 million Tier 1 debt, £242 million Tier 2 debt and £23 million of covered bonds. There was no exposure to Greece in respect of bank debt.

Of the £54.3 billion of debt securities backing shareholder business, five per cent (£3.0 billion) was in Tier 1 and Tier 2 hybrid bank debt. In addition to the Tier 1 and Tier 2 PIIGS exposures set out above we had £515 million exposure to the US, of which £3 million was Tier 1, £854 million exposure to the UK, of which £112 million was Tier 1, and £1,334 million of other exposures, of which £283 million was Tier 1.

#### Asia

Asia's debt portfolio totalled £15.4 billion at 30 June 2011. Of this, approximately 68 per cent was in unit-linked and with-profits funds with minimal shareholders' risk. The remaining 32 per cent is shareholder exposure and is invested predominantly (87 per cent) in investment grade bonds. For Asia, the portfolio has performed very well, and did not experience any default losses in the first half of 2011.

#### UF

The UK's debt portfolio on an IFRS basis is £74.8 billion as at 30 June 2011, including £46.7 billion within the UK with-profits fund. Shareholders' risk exposure to the with-profits fund is limited as the solvency is protected by the large inherited estate. Outside the with-profits fund there is £5.7 billion in unit-linked funds where the shareholders' risk is limited, with the remaining £22.4 billion backing the shareholders' annuity business and other non-linked business (of which 80 per cent is rated AAA to A, 18 per cent BBB and two per cent non-investment grade).

#### US

The most significant area of exposure to credit risk for the shareholders is Jackson in the US. At 30 June 2011 Jackson's fixed income debt securities portfolio totalling £25.3 billion, comprised £19.7 billion corporate and government debt, £2.5 billion of Residential Mortgage-Backed Securities (RMBS), £2.3 billion of Commercial Mortgage-Backed Securities (CMBS) and £0.8 billion of other instruments.

The US corporate and government debt portfolio of £19.7 billion is comprised of £17.9 billion of corporate debt and £1.8 billion of government debt. Of the £17.9 billion of corporate debt 95 per cent is investment grade. Concentration risk within the corporate debt portfolio is low, with the top ten holdings accounting for approximately eight per cent of the portfolio. Our largest sector exposures in the investment grade corporate debt portfolio are Utilities and Energy each at 15 per cent. We actively manage the portfolio and will sell exposures as events dictate.

Within the RMBS portfolio of £2.5 billion, the agency guaranteed portion is 53 per cent. Another 24 per cent of the portfolio is non-agency prime and Alt-A investments with pre-2006/2007 vintages, where experience has been much more positive than later vintages. Our exposure to the 2006/2007 vintages totals £425 million of which £418 million is invested in the senior part of the capital structure, thereby significantly reducing the risk of defaults and the magnitude of loss if a shortfall does occur. The actual exposure to non-senior 2006/2007 Prime and Alt-A RMBS is only £7 million. The total RMBS portfolio has an average fair value price of 90 cents on the dollar.

The CMBS portfolio of £2.3 billion is performing strongly, with 38 per cent of the portfolio rated AAA and one per cent rated below investment grade. The entire portfolio has an average credit enhancement level of 31 per cent. This level provides significant protection, since it means the bond has to incur a 31 per cent loss, net of recoveries, before we are at risk.

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In Jackson, total amounts charged to profits relating to debt securities were £13 million (2010: £161 million). This is net of recoveries/reversals recognised in the year of £3 million (2010: £3 million).

In the first half of 2011, Jackson's total defaults were £nil (2010: £nil). In addition, as part of our active management of the book, we incurred a credit net of recoveries and reversals of £1 million (2010: losses of £97 million) on credit-related sales of impaired bonds.

IFRS write-downs excluding defaults for the first half of the year were £14 million compared to £64 million in the equivalent period in 2010. Of this amount £11 million (2010: £39 million) was in respect of RMBS securities.

The impairment process reflects a rigorous review of every bond and security in our portfolio. Our accounting policy requires us to book full mark to market losses on impaired securities through our income statement. However, we would expect only a proportion of these losses eventually to turn into defaults, and some of the impaired securities to recover in price over time.

#### Unrealised gains and losses on debt securities in the US

Jackson's net unrealised gains from debt securities has steadily improved from negative £2,897 million at 31 December 2008 to positive £4 million at 31 December 2009 to positive £1,210 million at 31 December 2010 to positive £1,419 million at 30 June 2011. The gross unrealised loss position moved from £370 million at 31 December 2010 to £266 million at 30 June 2011. Gross unrealised losses on securities priced at less than 80 per cent of face value totalled £168 million at 30 June 2011 compared to £224 million at 31 December 2010.

#### Asset management

The debt portfolio of the Group's asset management operations of £1.7 billion as at 30 June 2011 is principally related to Prudential Capital operations. Of this amount £1.6 billion were rated AAA to A- by S&P or Aaa to A3 by Moody's.

#### Loans

Of the total Group loans of £9.0 billion at 30 June 2011, £6.8 billion are held by shareholder-backed operations comprised of £4.6 billion commercial mortgage loans and £2.2 billion of other loans.

Of the £6.8 billion held by shareholder-backed operations, the Asian insurance operations held £0.4 billion of other loans, the majority of which are commercial loans held by the Malaysian operation that are rated investment grade by two local rating agencies. The US insurance operations held £4.1 billion of loans, comprising £3.6 billion of commercial mortgage loans, all of which are collateralised by properties, and £0.5 billion of policy loans. The US commercial mortgage loan portfolio does not include any single-family residential mortgage loans and therefore is not exposed to the risk of defaults associated with residential sub-prime mortgage loans. Jackson incurred impairments of £9.6 million on its commercial mortgage book (2010: £1.2 million). The UK insurance operations held £1.0 billion of loans, the majority of which are mortgage loans collateralised by properties.

The balance of the total shareholder loans amounts to  $\pounds$ 1.3 billion and relates to bridging loan finance managed by Prudential Capital.

#### c Insurance risk

The processes of determining the price of our products and reporting the results of our long-term business operations require us to make a number of assumptions. In common with other industry players, the profitability of our businesses depends on a mix of factors including mortality and morbidity trends, persistency, investment performance, unit cost of administration and new business acquisition expenses.

We continue to conduct rigorous research into longevity risk using data from our substantial annuity portfolio. The assumptions that Prudential makes about future expected levels of mortality are particularly relevant in its UK annuity business. The attractiveness of reinsurance is regularly evaluated. It is used as a risk management tool where it is appropriate and attractive to do so.

Prudential's persistency assumptions reflect recent experience for each relevant line of business, and any expectations of future persistency. Persistency risk is mitigated by appropriate training and sales processes and managed proactively post sale. Where appropriate, allowance is also made for the relationship – either assumed or historically observed – between persistency and investment returns, and for the resulting additional risk.

#### d Liquidity risk

The holding company has significant internal sources of liquidity which are sufficient to meet all of our expected requirements for the foreseeable future without having to make use of external funding. In aggregate the Group has £2.1 billion of undrawn committed facilities, expiring between 2012 and 2016. In addition, the Group has access to liquidity via the debt capital markets. For example, Prudential plc issued US\$550 million perpetual subordinated Tier 1 securities in January 2011. Prudential also has in place an unlimited commercial paper programme and has maintained a consistent presence as an issuer in this market for the last 10 years. Liquidity uses and sources have been assessed at a business unit level under base case and stressed assumptions. The liquidity resources available and the subsequent Liquidity Coverage Ratio (LCR) have been assessed to be sufficient under both sets of assumptions.

### 2 Non-financial risk

Prudential is exposed to operational, business environment and strategic risk in the course of running its businesses.

With regard to operational risk, the Group is dependent on processing a large number of complex transactions across numerous and diverse products, and is subject to a number of different legal and regulatory, including tax, regimes. Prudential also has a significant number of third-party relationships that are important to the distribution and processing of our products, both as market counterparties and as business partners. This results in reliance upon the operational performance of these outsourcing partners.

Prudential's systems and processes incorporate controls that are designed to manage and mitigate the operational risks associated with its activities. The Prudential Group Governance Manual was developed to make a key contribution to the sound system of internal control that the Group is expected to maintain under the UK Corporate Governance Code and the Hong Kong Code on Corporate Governance Practices. Business units confirm that they have implemented the necessary controls to evidence compliance with the Manual.

The Group also has an operational risk management framework in place that facilitates both the qualitative and quantitative analysis of operational risk exposures. The output of this framework, in particular management information on key operational risk components such as risk and control assessments, internal incidents and external incidents, is reported by the business operations and presented to the Group Operational Risk Committee. This information also supports business decision-making and lessons-learned activities; the ongoing improvement of the control environment; the informing of overall levels of capital held; and determination of the adequacy of Prudential's corporate insurance programme.

With regard to business environment risk, the Group has a wide-ranging programme of active and constructive engagement with governments, policymakers and regulators in our key markets and with relevant international institutions. Such engagement is undertaken both directly and indirectly via trade associations. The Group has procedures in place to monitor and track political and regulatory developments. Where appropriate, we provide submissions and technical input to officials and others, either via submissions to formal consultations or through interactions with officials.

With regard to strategic risk, both business units and the Group Head Office are required to adopt a forward-looking approach to risk management by performing risk assessments as part of the annual strategic planning process. This supports the identification of potential threats and the initiatives needed to address them, as well as competitive opportunities. The impact on the underlying businesses and/or Group-wide risk profile is also considered to ensure that strategic initiatives are within the Group's risk appetite.

## 3 Risk factors and contingencies

Our disclosures covering risk factors can be found at the end of our 2010 Annual Report. Note AB of the IFRS basis condensed consolidated financial statements gives an update on the position for contingencies of the Group since those published in the 2010 Annual Report.

### Capital management

#### Regulatory capital (IGD)

Prudential is subject to the capital adequacy requirements of the European Union (EU) Insurance Groups Directive (IGD) as implemented by the Financial Services Authority (FSA) in the UK. The IGD capital adequacy requirements involve aggregating surplus capital held in our regulated subsidiaries, from which Group borrowings, except those subordinated debt issues that qualify as capital, are deducted. No credit for the benefit of diversification is permitted under this approach.

Our capital position remains strong. We have continued to place emphasis on maintaining the Group's financial strength through optimising the balance between writing profitable new business, conserving capital and generating cash. We estimate that our IGD capital surplus is £4.1 billion at 30 June 2011 (before taking into account the 2011 interim dividend), covering our capital requirements 2.9 times. This compares to a capital surplus of £4.3 billion at the end of 2010 (before taking into account the 2010 final dividend).

The movements during 2011 mainly comprise:

 Net capital generation mainly through operating earnings (in-force releases less investment in new business) of £0.6 billion;

#### Offset by:

- Final 2010 dividend of £0.4 billion;
- External financing costs and other central costs, net of tax, of £0.2 billion:
- Net impact of £0.1 billion arising from issuance of the US\$550 million perpetual subordinated Tier 1 securities in January 2011 and recognition of intended repayment of the €500 million subordinated notes in December 2011; and
- Foreign exchange movements of £0.1 billion.

We continue to have further options available to us to manage available and required capital. These could take the form of increasing available capital (for example, through financial reinsurance) or reducing required capital (for example, through the mix and level of new business) and the use of other risk mitigation measures such as hedging and reinsurance.

In addition to our strong capital position, on a statutory (Pillar 1) basis, the total credit reserve for the UK shareholder annuity funds also protects our capital position in excess of the IGD surplus. This credit reserve as at 30 June 2011 was £1.8 billion. This represents 44 per cent of the portfolio spread over swaps, compared to 43 per cent as at 31 December 2010.

#### **Stress Testing**

As at 30 June 2011, stress testing of our IGD capital position to various events has the following results:

- An instantaneous 20 per cent fall in equity markets from 30 June 2011 levels would reduce the IGD surplus by £150 million;
- A 40 per cent fall in equity markets (comprising an instantaneous 20 per cent fall followed by a further 20 per cent fall over a four-week period) would reduce the IGD surplus by £700 million;
- A 150 bps reduction (subject to a floor of zero) in interest rates would reduce the IGD surplus by £500 million; and
- Credit defaults of ten times the expected level would reduce IGD surplus by £600 million.

We believe that the results of these stress tests, together with the Group's strong underlying earnings capacity, our established hedging programmes and our additional areas of financial flexibility, demonstrate that we are in a position to withstand significant deterioration in market conditions.

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We also use an economic capital assessment to monitor our capital requirements across the Group, allowing for realistic diversification benefits and continue to maintain a strong position. This assessment provides valuable insights into our risk profile.

#### Solvency II

The European Union (EU) is developing a new solvency framework for insurance companies, referred to as 'Solvency II'. The Solvency II Directive, which sets out the new framework, was formally approved by the Economic and Financial Affairs Council in November 2009 and is expected to be implemented from 1 January 2013, although discussions are now underway about potentially delaying the implementation for firms until 1 January 2014. The new approach is based on the concept of three pillars – minimum capital requirements, supervisory review of firms' assessments of risk, and enhanced disclosure requirements.

Specifically, Pillar 1 covers the quantitative requirements around own funds, valuation rules for assets and liabilities and capital requirements. Pillar 2 provides the qualitative requirements for risk management, governance and controls, including the requirement for insurers to submit an Own Risk and Solvency Assessment (ORSA) which will be used by the regulator as part of the supervisory review process. Pillar 3 deals with the enhanced requirements for supervisory reporting and public disclosure.

A key aspect of Solvency II is that the assessment of risks and capital requirements are intended to be aligned more closely with economic capital methodologies. Companies may be allowed to make use of internal economic capital models if approved by the local regulator.

The European Commission is in the process of consulting on the detailed rules that complement the high-level principles in the Directive, referred to as 'implementing measures', which are not expected to be finalised before early 2012.

In particular, the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) published a number of consultation papers in 2009 and 2010 covering advice to the European Commission on the implementing measures but there remains significant uncertainty regarding the outcome from this process. Prudential is actively participating in shaping the outcome through our involvement in industry bodies and trade associations, including the Chief Risk Officer and Chief Financial Officer Forums, together with the Association of British Insurers (ABI) and the Comité Européen des Assurances (CEA). In addition, further guidance and technical standards are currently being developed by the European Insurance and Occupational Pensions Authority (EIOPA). These are expected to be subject to a formal consultation and finalised by late 2012.

Many of the issues being actively debated have received considerable focus both within the industry and from national bodies. However, the application of Solvency II to international groups is still unclear and there remains a risk of inconsistent application, which may place Prudential at a competitive disadvantage to other European and non-European financial services groups. There is also a possibility that depending on the outcome reached on a number of key issues, the effect of the measures finally adopted could be adverse for the Group, including potentially a significant increase in capital required to support its business.

Having assessed the high-level requirements of Solvency II, an implementation programme was initiated with dedicated teams to manage the required work across the Group. The activity of the local Solvency II teams is being coordinated centrally to achieve consistency in the understanding and application of the requirements.

Over the coming months we will be progressing our implementation plans further and remaining in regular contact with the FSA as we continue to engage in the 'pre-application' stage of the approval process for the internal model.

#### Capital allocation

Prudential's approach to capital allocation takes into account a range of factors, especially risk adjusted returns on capital, the impact of alternative capital measurement bases (accounting, regulatory, economic and ratings agency assessments), tax efficiency, and wider strategic objectives.

We optimise capital allocation across the Group by using a consistent set of capital performance metrics across all business units to ensure meaningful comparison. Capital utilisation, return on capital and new business value creation are measured at a product level. The use of these capital performance metrics is embedded into our decision-making processes for product design and product pricing.

Our capital performance metrics are based on economic capital, which provides a view of our capital requirements across the Group, allowing for realistic diversification benefits. Economic capital also provides valuable insights into our risk profile and is used both for risk measurement and capital management.

#### Risk mitigation and hedging

We manage our actual risk profile against our tolerance of risk. To do this, we maintain risk registers that include details of the risks we have identified and of the controls and mitigating actions we employ in managing them. Any mitigation strategies involving large transactions such as a material derivative transaction are subject to review at Group level before implementation.

We use a range of risk management and mitigation strategies. The most important of these include: adjusting asset portfolios to reduce investment risks (such as duration mismatches or overweight counterparty exposures); using derivatives to hedge market risks; implementing reinsurance programmes to limit insurance risk; implementing corporate insurance programmes to limit the impact of operational risks; and revising business plans where appropriate.