FINANCIAL REPORTING FOR LIFE INSURANCE BUSINESS

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PRESENTATION LAYOUT

- Fair value reporting
  - Recent developments
  - Country level changes
- Shareholders’ perspective
  - Financial reporting
  - Recent developments
- Risk management and financial reporting
  - Regulatory perspective
  - Overview of different jurisdictions
- Issues for India

Fair value reporting:
Recent developments

Developments under Fair Value Reporting

- Change from International Accounting Standards (IAS) to International Financial Reporting Standards (IFRS)
- International Accounting Standards Board (IASB) published Phase I Exposure Draft (ED 5) on insurance contracts in July 2003
  - First stage of the move to IFRS for insurers
  - Phase II Final standard expected in 2004
- Timelines for IFRS for insurers
  - First IFRS Balance Sheet on Phase II - 2005
  - Fair value disclosure : investment contracts – 2006
  - Fair value disclosure : insurance contracts - 2007

Developments under Fair Value Reporting

- Classification of insurance contracts and investment contracts
  - Distinction between insurance risk and financial risk
  - Insurance contracts – life and annuity business
    - Requires insurance risk to be significant
  - Investment contracts – savings, pension & investment plans
    - Legal form of insurance but no significant insurance risk
  - Service contracts (?) covered under IAS 18
- Need to examine terms and characteristics of contracts for classification
  - Also assess whether contract unbundled or contains embedded derivatives

Developments under Fair Value Reporting

- Phase I : ED5
  - certain exemptions for insurance companies until 2007
  - Existing accounting procedures to continue for business meeting insurance contract definition;
  - acquisition costs can be deferred
  - Catastrophe and equalization reserves will not be recognized
  - reinsurance contracts treated in the same way as direct business but to be shown separately
  - Investment contracts have minimum liability test on guaranteed amount
  - Fund for future appropriations to be treated as a liability, equity or split between the two

Developments under Fair Value Reporting

- Phase I: ED5
  - IAS 39
  - Applies to investment contracts
    - Choice at the outset to measure financial liabilities at amortized cost or at fair value
    - Premiums to be treated as deposit and not as revenue
    - Significant change in apparent revenue
    - Considerable system implications
  - Fair value liability based on best estimate of future cash flows
    - Taking lapses into account
    - Not clear whether cash surrender value will apply as minimum fair value liability
  - Implementation represents major challenge to insurers
  - Assets backing insurance contracts a/ced under IAS39 at fair value

Developments under Fair Value Reporting

- Enhanced disclosure
  - On risks and procedures in place for mitigation including
    - Factors affecting year on year movement in liabilities
    - Exposure to insurance and financial risks incl. concentration of risk
    - Sensitivity analyses to show impact of different risk scenarios
    - Asset, liability and risk management procedures
  - Disclosure of fair value of assets and liabilities required in 2006
    - But “fair value” not yet defined for insurance contracts !

Fair value reporting:
Country level changes

Country level changes in practices

- From 2005 , all EU listed insurance companies will report under IFRS
  - EU reviewing supervision of insurance business under Solvency II Project (implementation by 2008 ?)
- Japan: expected to converge with IFRS
  - Areas of disagreement subject to discussions and building of consensus
- USA: IASB and FASB announced convergence agreement in October 2002
  - SEC expected to accept IFRS statements without US GAAP reconciliation only when IFRS convergence is well advanced

Country level changes in practices - UK

- UK
  - Major changes in the way UK life insurers will be regulated by Financial Services Authority (FSA) - effective from 2004
    - Overhaul in the framework for calculation of regulatory capital – particularly with profits fund
    - Pillar One and Pillar Two capital requirements
      - Pillar One based on dual valuation assessment – Twin Peak approach
      - Pillar Two (Individual Capital Assessment (ICA))to be disclosed privately to FSA

Country level changes in practices - UK

- New regulatory regime for life companies
  - Depending on with profits or non profits firm
  - With profits firm
    - Realistic basis reserve calculations compulsory for firms with WP liabilities > 500 m GBP (dual assessment based on regulatory peak and realistic peak)
    - Firms with < 500 m GBP can opt between statutory basis only and dual basis
    - Realistic peak to identify additional capital requirement
  - Non Profit Firms
    - Required to report only under statutory basis
  - ICA applies to all companies

Country level changes in practices - UK

- Regulatory Peak
  - Compares admissible assets with sum of mathematical reserves, resilience capital and long term insurance capital (present min, margin) requirement
  - Mathematical reserves can be calculated using gross premium method; allowance for future discretionary benefits no longer required and will be covered by realistic valuation
  - Prudent allowance for voluntary discontinuance permitted
  - Resilience reserve is a capital requirement and not reserve

Country level changes in practices - UK

- Realistic Peak
  - Compares assets, including some inadmissibles, with realistic liabilities plus a risk capital margin
- ICA
  - Effective from 2005 (Results of ICA may be asked for 2004 from some companies)
  - Companies required to carry out own assessment of capital needed taking into account their risks
    - Risk categories: credit, market, liquidity, operational and insurance
    - Stress and scenario testing
- UK will also have to implement Solvency II regime of the EU when established

Financial Reporting: Shareholders’ perspective

PRESENT REPORTING

- No official international standards for financial reporting of insurance contracts – both regulatory and GAAP
- National regulatory regimes drive insurance accounting with implicit conservative assumptions (e.g. ignoring policy lapses)
- Insurance and other financial services industries viewed as distinct entities

DRIVERS OF CHANGE

- Pressure to create level playing field for all financial service industries
- Life insurance sector historically mutual in form – now being de-mutualized
- Industry raising capital across borders
- Global consolidation trends
- Globalisation drives need for common financial reporting basis – not possible without common regulation or required capital formula

DRIVERS OF CHANGE

FINANCIAL ANALYSTS

- **What do they want - Periodical reporting from management**
  - Key performance indicators
  - Segmented results (balance sheet and income statement)
  - Analysis of profits
  - Carrying value and fair value of assets
  - Explain risk management and actuarial practices
- **What do they do with this**
  - Understand the company’s financials
    - Sensitive to what
    - Exposed to what
  - Company comparisons
  - Try to understand “actuarial black box”

GAAP Statements

- Two broad approaches currently
  - Income statement focus (deferral and matching approaches)
  - Balance sheet focus (asset and liability measurement approaches)
- USA and Australia are examples of the former
- In general, GAAP is oriented towards smooth profits

Recent Developments

- International accounting standards moving towards balance sheet approach (i.e. asset and liability approach)
- Fair Value will form the basis leading to realistic and more relevant information
- Income recognized as insurer is released from risk
- Possibility exists of some income being recognized when policy is sold
- Several unresolved issues and challenges – project going ahead in two phases

Change Analysis

- An example – US GAAP
  - Income statement based approach
  - Income determined by matching expense to revenue or service
  - Forces balance sheet to conform through entries such as DAC and DTL
  - More of a hybrid, valuing some assets at market value but recognizes few liabilities at market value
  - Recognizes gains and losses (from NB and asset liability mismatch) over the life of the liability or at the time of a transaction such as an asset sale

Change Analysis ….

- An example – US GAAP (continued)
  - Acquisition expenses amortized and requires DAC
  - Under the emerging regime
    - All gains and losses recognized in the period in which they arise
    - Notional assets such as DAC no longer required
    - Changes in approach to policy reserves
      - Discount rate is risk free rate
      - Cash flows allow for investment risk
      - Assumptions related to current best estimates plus risk margin

Volatility is a main concern

- Reported financial results will be inherently volatile
- But volatility is a part of life now (volatile economic conditions, continuous capital market innovations, dynamic product management strategies)
- Investment management (ALM) and product design will be key tools in managing and controlling volatility
- Challenge is in developing techniques to present results
- Sources of earnings disclosure can explain volatility

Advantages of emerging system

- Ability to identify problems faced by a company much earlier enabling timely management action
- Allows financial statement user to understand separately the impact of management actions and economic factors beyond management control
- Forces study of economy of policies
  - Explicit quantification of more variables
  - More robust pricing of embedded options and guarantees

Advantages of emerging system ….

- Consolidates financial management processes
- FV reporting could be a catalyst to review other aspects of business (e.g. financial, capital and risk management, product design, information technology)
- Do not need an actuary to interpret the financial statements?

Challenges

- Stochastic approach to calculating insurance liabilities where deterministic unacceptable
- Market Value Margins (adjustment to cash flows and / or discount rate) – degree of allowance?
  - for diversifiable and undiversifiable risks
  - Financial and non-financial (e.g. demographic) risks
- Definition of insurance contract
  - Insurance risk and financial risk
- Allowance for future premiums only if it increases liability

Challenges ….

- Unbundling (e.g. unit linked contracts into unit fund and insurance contract) and accounted separately
- Embedded derivatives to be separated and measured at FV; exemptions apply (GAO, GSV)
- With profits contracts
- Consistency between asset and liability valuation / reporting

Practical Considerations and Business Issues

- EU
  - Implementation for year ending 2005
  - Comparative figures for 2004
- Management understanding, explaining and managing volatile earnings
- Human resources – skilled expertise, knowledge and training

Practical Considerations and Business Issues ….

- Challenging time line
- Investment Management
  - Tighter matching of assets and liabilities
  - Investment management on a total return basis
  - Increased focus on credit quality
- Pricing and Product Design
  - Product design and classification
  - Guarantees and options
  - Renewals

Practical Considerations and Business Issues ….

- System challenges
  - Stochastic modelling
  - Earnings analysis
  - forecasting
- Disclosure and external relations

Risk management and financial reporting:

1. Regulatory perspective
2. Overview of different jurisdictions

Risk Management and Financial Reporting – From Regulators' view point

1. Asset Risk position reporting
2. Liability Risk position reporting
3. Asset-Liability Risk position reporting
4. Operational risk position reporting

Asset Risk position reporting

- Credit risk (downgrading risk, default risk, currency risk)
- Market risk (asset pre-payment, return volatility, asset market values, liquidity)
- Credit exposure / counter party exposure
- Concentration and diversification risk
- Aggregate portfolio risk

Asset Risk position reporting

a. Duration
b. Liquidity
c. Convexity
d. Performance measurement and attribution analysis
e. Value at risk
f. The Greeks

Analysis of Asset Risk Reporting by Asset Category

	The asset portfolio in aggregate	Fixed Interest Securities	Equities	Derivative Instruments	Real Estate	Other Investments
Duration						
Liquidity						
Convexity						
Performance Measurement and Attribution Analysis						
Value at Risk						
The Greeks						

Asset Liquidity Reports:

- Lists of highly liquid securities that can be sold without triggering a realized capital loss
- Maximum cash that can be raised in 30 days
- Short-term cash match between assets and liabilities
- Comparison of expected market value of assets to surrender values over a variety of scenarios
- Ratio of liquid assets to projected surrenders under 3 scenarios (base, stressed and panic)
- Assessment of primary and secondary asset liquidity, in connection with liability considerations.
- Maturity and investment income reports are effective tools when performing liquidity analysis.
- Operating and crisis liquidity reporting by segment
- Liquidity information split by operating needs, corporate needs and amounts available for investment.

Convexity Reports:

- Convexity of the bond portfolio monitored daily, broken down by asset class.
- Convexity measures included on daily portfolio reports.
- Convexity calculations as part of asset-liability analysis, including:
  - Price behavior curves by product line, business unit, company and enterprise
  - Weekly convexity reports by variable funds
  - Partial convexities by category of asset and line of business

VAR Reports:

- **Quarterly reports that show short and long term earnings at risk by percentile.**
- **Value at Risk for each product portfolio for interest rates, mortality, defaults and other assumptions.**
- **Aggregate Value at Risk for both assets and liabilities**
- **Probability distribution of performance of the largest asset class over a defined timeframe.**
- **List of major components of risk and amount of capital held for those risks.**
- **Value at Risk reports that provide probabilities for an x% drop in surplus in any given year.**
- **Duration is still better understood than Value at Risk. Trend reports and marginal value at Risk usually causes discussion.**

Greeks:

- Vega is estimated, but not disseminated. Delta and Rho come through duration.
- Derivative and convertible assets and their comparison versus equity indexed annuity liabilities.
- Weekly reports showing Delta, Vega, Gamma and Rho by variable funds.
- A report showing the Greek measures against predetermined limits.

Comparison of Asset Valuation Framework across Different Jurisdictions

Asset Class		Asset Valuation Basis			
		Singapore	United Kingdom	Canada	Australia
Equities	Quoted	Lower of cost or market value	Market Value	"Smoothened" market value (15% of unrealized gains/losses booked)	Market value
	Unquoted	Lower of Net Tangible Assets (NTA) or net realizable value.	Multiple of Price Earnings ratio plus the proportionate profits attributable to that share at the relevant date	Realizable Value	Realizable Value

		Singapore	UK	Canada	Australia
Bonds	Listed Corporate	Lower of cost or market value	Market value	Market value	Market value
	Unlisted Corporate	Lower of cost or net realizable value	Realizable value	Realizable value	Realizable value
	Local Government	Amortized value or the lower of cost or nominal value	Market value or net realizable value	Market value or net realizable value	Market value or net realizable value
	Foreign Government	Amortized value or the lower of cost or nominal value	Market value or net realizable value	Market value or net realizable value	Market value or net realizable value

Asset Class		Asset Valuation Basis			
		Singapore	UK	Canada	Australia
Loans	Secured	Lower of principal amount outstanding or: •In the first year, 70% of the net realizable value of the collateral •In subsequent years, 90% of the net realizable value of the collateral	Recoverable Value	Recoverable Value	Recoverable Value

Asset Class		Asset Valuation Basis			
		Singapore	UK	Canada	Australia
Loans	Unsecured	Lower of principal amount outstanding or net realizable value	Recoverable value	Recoverable value	Recoverable value
	Mortgage	Lower of principal amount outstanding or net realizable value of the collateral	Recoverable value	Recoverable value	Recoverable value
	Policy	Lower of principal amount outstanding or cash value of policy	Face value of the debt if it does not exceed the cash value of the policy.	Recoverable value	Recoverable value
	Bank Guaranteed	Lower of principal amount outstanding or net recoverable value	Face value	Face Value	Face Value

Asset Class	Asset Valuation Basis			
	Singapore	UK	Canada	Australia
Receivables	Principal amount outstanding less any adequate provisions	Principal amount outstanding less any adequate provisions	Principal amount outstanding less any adequate provisions	Principal Amount outstanding less any adequate provisions.
Properties	Cost less any depreciation	Cost less any depreciation	Cost less any depreciation	Cost less any depreciation
Unit Trusts	Lower of cost or realizable value	Realizable value	Realizable value	Realizable value
Foreign Currency Denominated Assets	Current assets are translated at the closing exchange rate and long term assets are translated the historical exchange rate.	Realizable value	Realizable value	Realizable value
Derivative Contracts	Treatment in accordance with GAAP for off balance sheet items	Realizable value	Realizable value	Treated as off-balance sheet item (disclosure required on the objectives for holding such instruments, the context underlying the objectives and the strategies for achieving the objectives)

Liability Risk Position Reports

- Experience studies
- Embedded value added and variance analysis

Asset Liability Risk Position Reports

Stochastic scenario testing

- Deterministic scenario or stress testing
- Mismatch risk (cash flow mismatch; duration mismatch; convexity mismatch; liquidity mismatch)
- Transfer Pricing

Liability Risk Position Reports

Liability risks primarily arise from the following categories:

- Claim costs
- Expenses
- Reserve adequacy and adequacy of pricing elements other than claim costs and expenses
- Catastrophe (P/C)
- Failure of reinsurance

Embedded Value Added & Variance Analysis

- To indicate the drivers of profitability
- To provide more effective feedback on the performance of lines of business
- To monitor and explain, rather than to help make decisions
- To make risk/reward trade offs
- To identify implementable strategies

Asset-Liability Risk Position Reports

Asset-liability specific risks primarily arise from the following categories:

- Duration mismatch risk
- Cash flow mismatch risk
- Crediting spreads
- Product guarantees (minimum interest rates)
- Disintermediation

Deterministic Scenario Testing:

- Calculate the impact of a 200 basis point change on the value of the fixed-income portfolio
- Analysis of historical interest rate patterns
- Stress test increased lapse, morbidity, expense and repayment assumptions
- Earnings and embedded value impacts of high severity /low probability events, say 95 and 99 percentiles
- Report that displays results consistent with financial statement presentation
- These are traditional ratemaking type reports by major type of business groups and line of business
- Cash flow graphs with deterministic scenario of asset and liability cash flows
- Measures shock to current interest rates

Mismatch Reports:

- Cash flow projections of the insurance operation versus investments; variability of each
- Review asset and liability cash flows at company level
- Asset-liability duration management reports, as well as asset-liability cash flow reports
- Premiums should be included with asset cash flows; look at enterprise level and drill down
- Crediting spread, duration mismatch, cash flow mismatch
- Asset and liability cash flows and earnings by duration and percentile reports showing duration, convexity for assets and liabilities, including currency duration and currency convexity
- Report demonstrating impact of change of yield curve
- Key rate duration analysis and aggregate duration reports
- No specific reports;analytic information provided by ALM staff Mismatch reports by line of business/operating division/asset portfolio
- Cash flow mismatch by year (quarter) and duration mismatch, each by investment segment
- Asset/liability duration and cash flow mismatch for selected product lines
- Quarterly liquidity mismatch reports

Operational Risk position Reports

Operational risks relate to any non-financial risk and arise from many sources, including (but not limited to) the following:

- **Event Risk – This risk category includes risk exposures arising from:**
  - **Taxation**
  - **Political sources**
  - **Regulation**
  - **Capital Markets**

- **People Risk - This risk category includes risk exposures arising from:**
  - **Integrity**
  - **Health and Safety**
  - **Key Personnel**

- **Technology Risk – This risk category includes risk exposures arising from:**
  - **Inappropriate transactions**
  - **Lost data**
  - **Availability and infrastructure**
- **Distribution Risk**
  - **Business volumes**
  - **Market conduct**
  - **Sales compliance**
- **Catastrophic Risk**
  - **Property Damage**
  - **Flood, hurricane, tornado**
  - **Business interruption**

ISSUES FOR INDIA

ISSUES FOR INDIA

- Asian countries adopting “wait and see”
- Most Indian private insurers have foreign parentage
  - Subsidiaries of EU listed companies will be affected soon (2005?)
  - Others: question is not “if” but “when”
- No Indian insurer is a directly listed company in India
- Pressure to fall in line with international norms will come from international analysts / investors

ISSUES FOR INDIA …

- Current financial reporting framework not compatible with FV
- Consequences of adopting FV accounting
  - Significant impact on product design?
  - Pricing for embedded options and guarantees
  - Earnings volatility: availability of appropriate assets and hedges

Thank You