Society of Actuaries in Ireland

CURRENT TOPICS 2009/2010

18th February 2010

Scope of Current Topics 2009/2010

- Updating actuaries on recent, key developments in areas outside of their specialist practice areas.
- Areas covered:

Investment	Life Insurance
Pensions	General Insurance

- Current Topics 2009/2010 Paper – available for download at www.actuaries.ie.
- Presentation will focus on the main issues in each practice area

Agenda

- Practice Area Presentations
  - Investments
  - Life Insurance
  - General Insurance
  - Pensions
- Conclusions
- Questions and Answers
- Drinks!

Investments

Fiona O’Mahony, Mercer
Stuart Redmond, Irish Life

Agenda

- Market Update
- Impact of the GFC on Investment Trends
- Providing Investment Guarantees

Market Update 2009 - Equities

- Global equity markets rallied over 50% from March through to year-end.

- Main equity markets were in positive territory over 2009:
  - best performing - Asia Pacific ex Japan which returned 67.4%
  - worst performing - Japan which returned 2.5%
  - the FTSE Eurobloc returned 28.8% during the same period.

- At a sector level:
  - Materials - strongest performing sector
  - Utilities &Telecoms - weakest performing sectors

World Index in Euro terms since January 1999 (Source: Bloomberg)

Market Update 2009 Cont.

Bond Markets:

- Bond markets had positive returns over 2009:
  - Merrill Lynch EMU Gov Bond > 10 yr Index was up 2.8%
  - Merrill Lynch EMU Gov Bond > 5 yr Index was up 4.0%

- Over 5 year period to end 2009, returns on both bond indices were positive (3.8% & 4.1% respectively) as bond markets were a ‘safe haven’ for investors

Property Markets:

- The Average Irish Property Fund returned -19% over 2009

Market Update January 2010

- Global equity markets returned -1.2% over January 2010
- Most of the main equity markets were in negative territory in Euro terms over the month January 2010.
  - The poorest performing region (Eurozone) returned -4.7%
  - Japan was the strongest performing region returning 5.2%
  - Irish equities returned -0.8%
- Nominal bond markets returned 1.1% over the month of January 2010 as measured by the Merrill Lynch EMU Government >10 Year Bond Index
- Inflation Linked Bonds returned -1.3% over the month as measured by the Barclays Euro Government Inflation Linked Index
- The Average Irish Property Fund returned 0.4% over January 2010

Impact of the GFC

- Credit risk for insurers – bonds and derivatives
- Risk assessment
    - Rating agency reports
    - Credit default swap spreads
    - CDR Counterpary Risk Index, LIBOR-OIS spread
- Risk mitigation
    - Limits on counterparty credit rating
    - Limits on total exposure to one counterpart
    - Collateral
    - Use of credit derivatives
    - Limiting derivative trades to those through a clearing house

Impact of the GFC Cont.

- Credit risk for insurers – reinsurers
- Issues
  - Lack of diversification
  - Correlation of experience with ceding companies
- Assessing reinsurer financial security (FR guidelines):
  - Size of reinsurer
  - Rating agency reports
  - Nature of business to be reinsured
  - Continuity if relationships
  - Limit exposure to reinsurer shareholders surplus

Impact of the GFC Cont.

- De-risking
  - Scheme Trustees & Sponsors are increasingly looking to reduce the investment risk of their current investment strategies (i.e. “de-risk”).
  - Phased de-risking is an investment strategy employed to effectively reduce investment risk over a period of time.

Providing Investment Guarantees

- Background
  - Implict vs. Explicit Guarantees
  - Structured Products
  - Variable Annuities
  - GFC highlighted opportunity but also the risks
- Managing the risk of providing investment guarantees
  - Approach depends on magnitude and compexity of the risks and the providers risk appetite
  - Pass the risk to a third party
  - Retain and manage the risk in-house

Passing the Risk to a Third Party

- Typically an investment bank or reassurer
- Clarity on what risks are being transferred
- Advantages
  - Economies of scale
  - Expertise
- Disadvantages
  - Cost
  - Availabilty
  - Flexibility

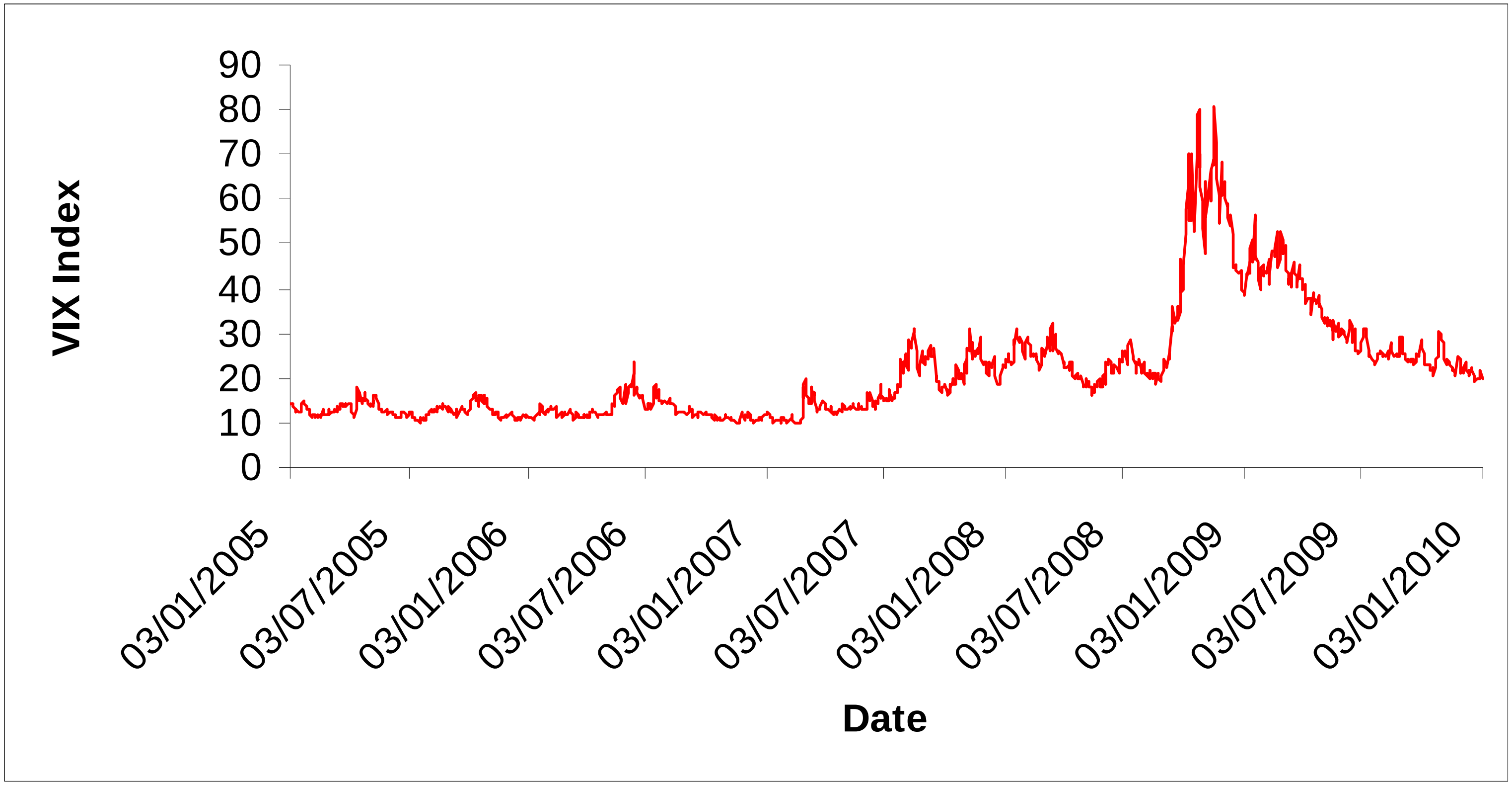
Retain and Manage Risk In-House

- Straightforward for simple products (e.g. tracker bonds)
- Dynamic hedging programme needed for complex guarantees (e.g. VAs)
    - Decision on which risks to hedge
    - Hedge effectiveness and basis risk

Impact of the Financial Crisis

- US VA providers' hedging programmes 93% effective in offsetting the losses they were designed to protect against
- Cost of guarantees driven by:
    - Interest rates
    - Volatilty
- Trend toward simpler guarantees on easily hedgeable indices

CBOE VIX
(Jan 2005 – Jan 2010)



Further Info

- Other investment topics covered in the paper:
  - Consumers and investment risk
  - Alternative Asset Classes
  - Defined Contribution Lifestyle Strategies

Life Insurance

Naomi Cooney, KPMG

Niamh Crowley, Irish Life

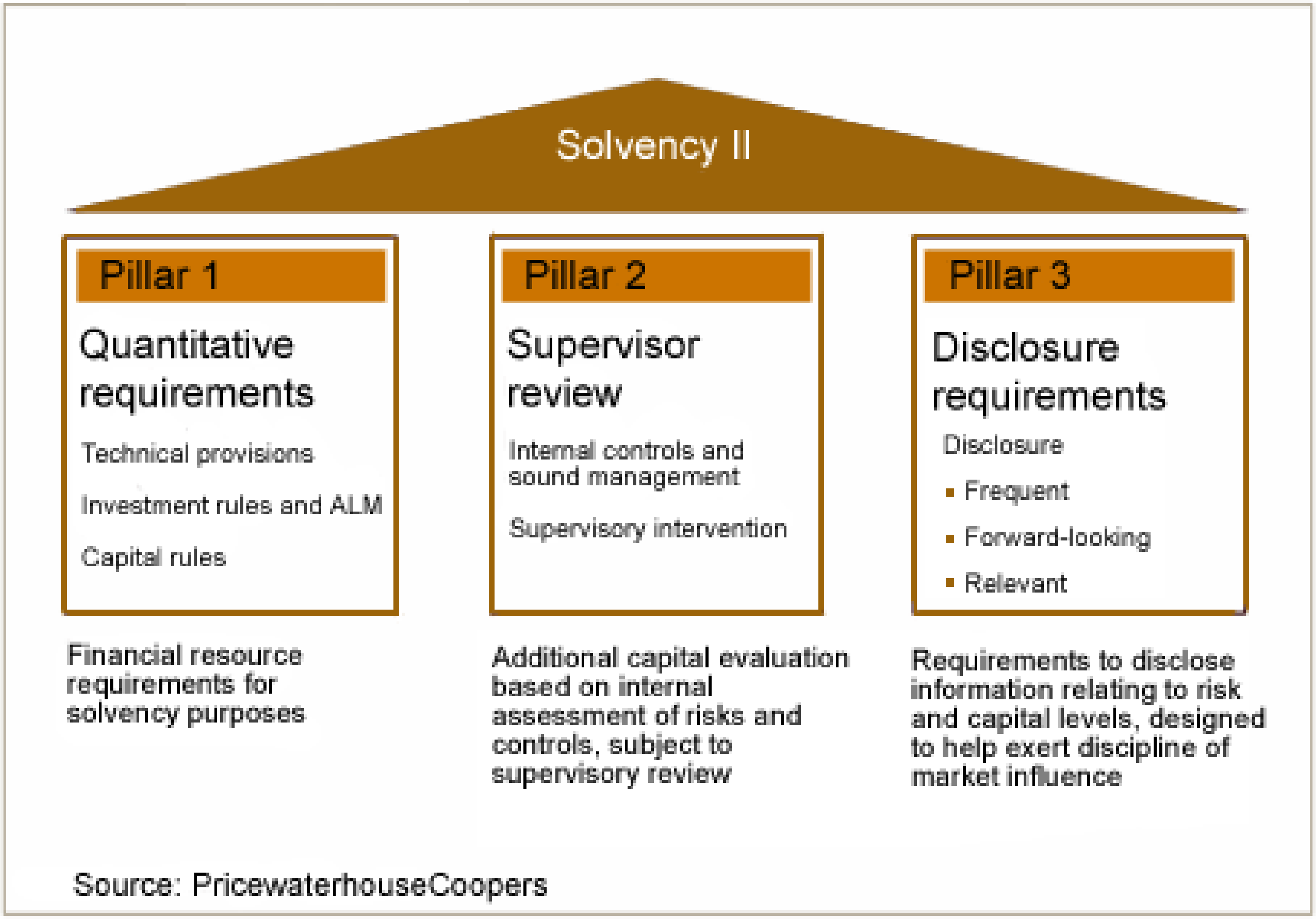
Agenda

- Solvency II – recap
- Enterprise Risk Management
- Variable Annuities Update
- Impact of the Financial Crisis
- Further Info

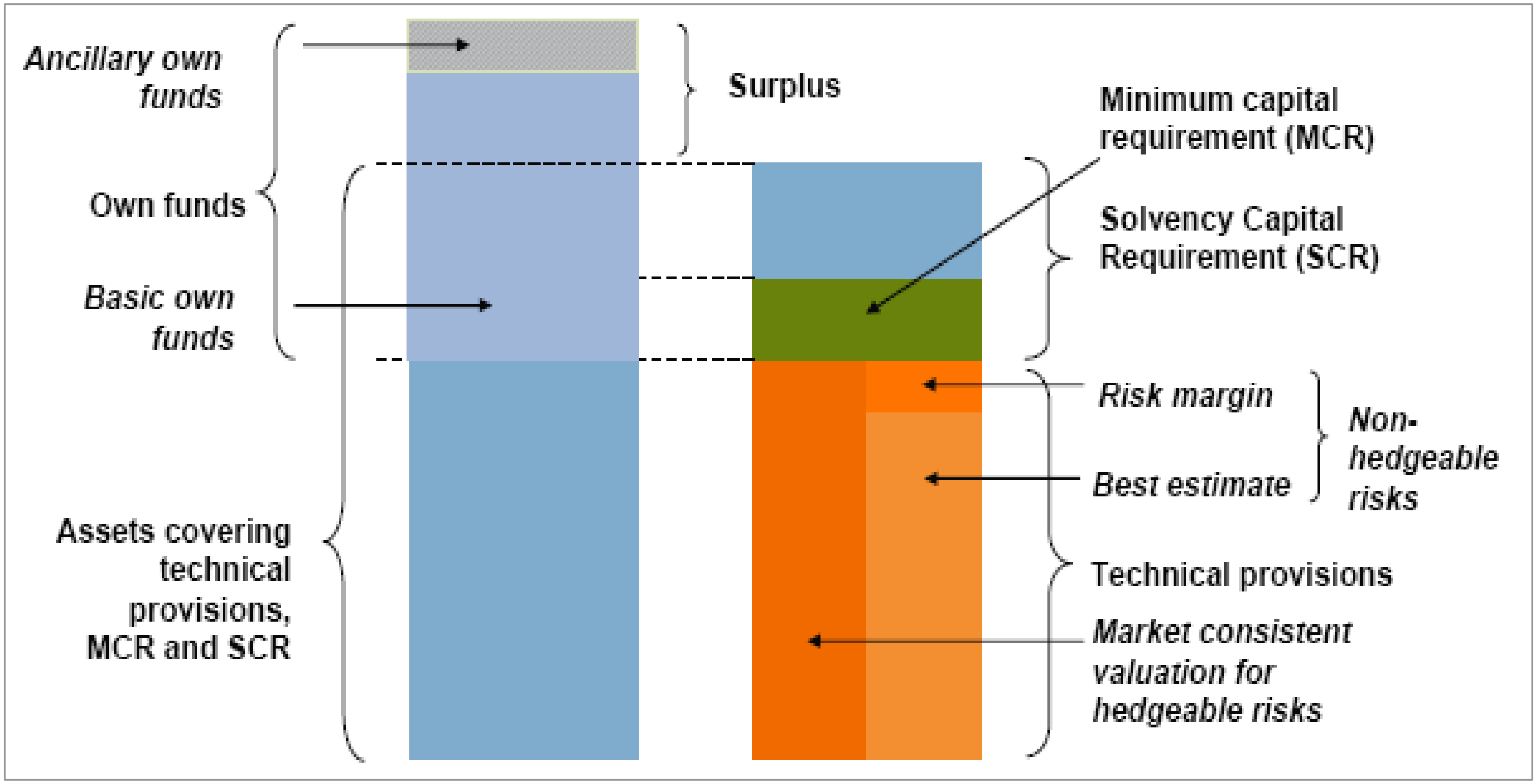
Solvency II

- A new capital adequacy regime for the European insurance industry
- Key objectives
  - Improved competition and integration across EU market
  - Enhanced policyholder protection
  - Greater transparency and disclosure
  - Increased risk-sensitivity of capital
  - Capital for non-financial risks (e.g. operational risk)

3 Pillars of Solvency II

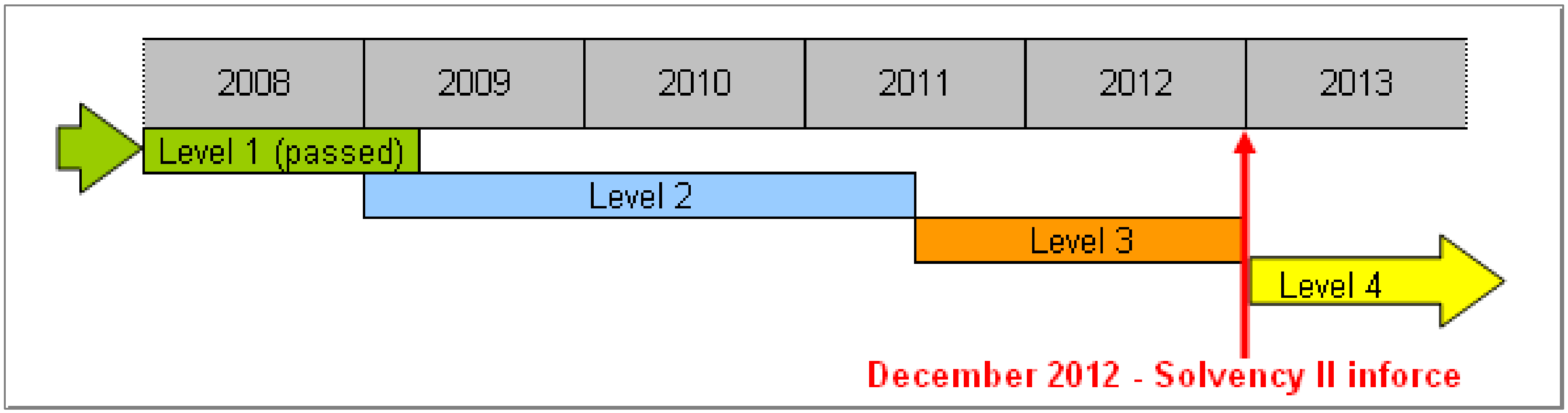


Pillar 1 Structure



Total Capital = Technical Provisions + SCR

Time-table



Level 1: Setting High Level Principles - Framework Directive passed April 22nd 2009
Level 2: Formulation of more detailed, technical rules (2009 – 2011)
Level 3: Implementation by member states, companies and local supervisors (mid 2011 – Dec 2012)
Level 4: Compliance and Enforcement (Dec 2012 onwards)

Enterprise Risk Management (ERM)

- What is it?
  - A risk-based approach to managing an enterprise\business
  - Considers all internal and external sources of risk together instead of independently
  - Looks at upside as well as downside risk
  - Quantifies risk (where possible)
  - ERM framework has been adopted by most risk professionals
  - Credit rating agencies now include ERM as a criterion when setting a companies credit rating.

ERM & Actuaries

- Institute of Actuaries' strategic vision:
  - "that actuaries are recognised as leading professionals in the field of ERM"
- Solvency 2 – closely aligned to ERM principles and framework
- New institute subject ST9 – from April 2010
- New SAI ERM Committee
- Resource : www.actuaries.org.uk/practice_areas/erm

Variable Annuities

- Unit-linked investment policies with guarantees
  - GMXB
  - X = Accumulation\Income\Withdrawal\Death
- 2008 stock market falls lead to rising costs of guarantees tied to VA business
- May 2009: Hartford Life pulled out of the UK VA market
- August 2009: FR issued discussion paper examining capital requirements for VA business
- Re-pricing and new product designs are being used to manage the risk

Impact of the Financial Crisis on Life Insurers

- Irish Gross New Business premium down 30%* in 2008 versus 2007
- Implications for product design and distribution
- Capital difficulties due to equity and property falls
- Poor persistency – a major issue for life offices
- Reinsurance
  - Higher retention of straightforward risks
  - Change in risk profile of reinsurers
- Tighter regulatory supervision

* Financial Regulator Insurance Statistical Review 2008

Further Info

- See Current Topics Paper for further details on:
  - Policyholder Tax changes
  - Changes to Actuarial Standards of Practice (ASPs)
  - Recent Corporate Activity

General Insurance

Conor Gaffney

Agenda

- The Impact of Climate Change on General Insurers
- Irish Corporate Taxation System- Impact on the Non Life Sector in Ireland
- Further Info

Climate Change

- How and why has the climate changed??
  - Increased demand for electricity generation
  - Achieved through burning of fossil fuels
  - Release of higher concentrations of carbon dioxide and other harmful gases into the earth's atmosphere
- How will this impact general insurers??
  - Predicted that greenhouse gas levels will continue to rise into the 21st century
  - Likely to significantly increase the frequency of naturally incurring conditions such as wildfires, windstorms, droughts, floods etc.
  - Will undoubtedly affect the business model of all general insurers.

Impact of Climate Change on Liabilities/Assets

- Liabilities
  - Property Classes
  - Motor Classes
  - Directors and Officers Insurance
  - Employers Liability

- Assets
  - Government Bonds
  - Equities
  - Property
  - Cash

Climate Change in Ireland

- Ireland more exposed to the effects of rising sea levels than inland countries and to weather related perils than inland countries.
- Recent report by Academy of Engineering(Ireland) states that:
  - Ireland risks social and economic disaster from climate change unless the government takes urgent action
  - Infrastructure in Ireland is unable to cope with changing weather conditions
  - Holland is spending €1.5bn per annum on adapting to climate change
  - If Irish government doesn't follow suit many property and weather related risks will be uninsurable
- Deduce that the profitability of Irish general insurers will be hit if remedial action isn't taken immediately.

Conclusion

- Challenges and opportunities for general insurers.

- We can expect to see the following:
  - Liabilities on many classes to increase
  - Asset values to experience greater volatility
  - Capital requirements to increase
  - Growth opportunities for dynamic insurers as a result of changes in the economy

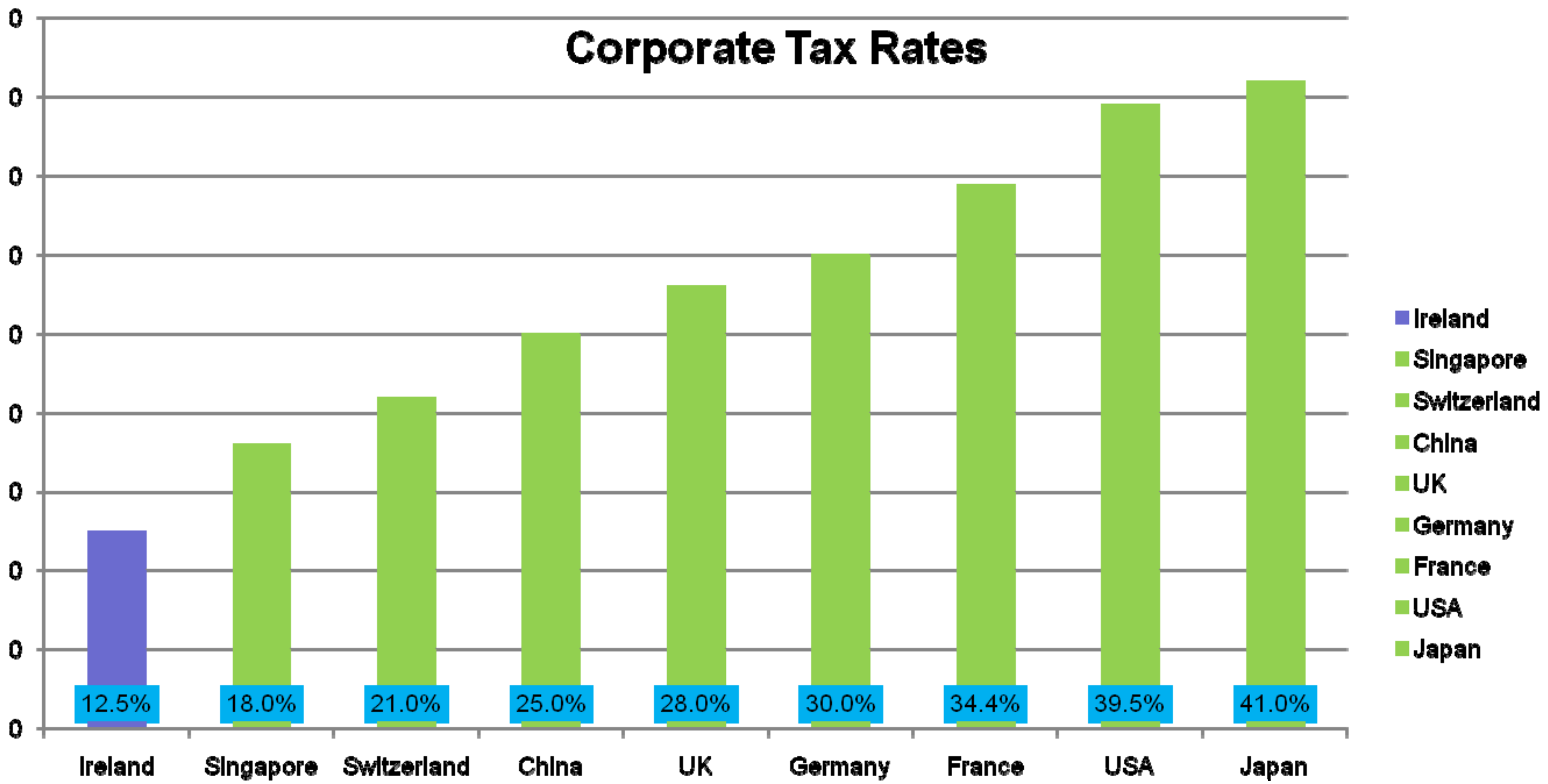
Irish Corporate Taxation Impact on Non Life Sector

- Irish non-life sector consists of insurers and reinsurers who are authorised to conduct insurance and reinsurance transactions in Ireland.
- As of the 31st December 2008 there were 236 insurance undertakings in Ireland on top of the many reinsurers and captives.
- In 2008 a total of €7.40 bn in gross premium was written by non-life <u>direct</u> insurers alone.
- Main taxes affecting them are premium tax and corporation tax – latter being the more significant of the two.

Structure of the Irish Corporate Taxation System

- A company's liability to corporation tax in Ireland depends on its residency.
- Irish resident companies are liable to corporate tax on all their income from both Irish and worldwide operations, and on any capital gains.
- If a company has its "central management and control" located in Ireland, the company is considered to be an Irish tax resident.
- The current rate of corporation tax on trading income in Ireland is **12.5%** and is one of the lowest rates in the world(excluding tax havens!).

International Comparison



Advantages of a low rate of Corporate Tax

- Such a low corporate tax rate explains why many insurers/reinsurers decide to locate their main operations in Ireland.
- The savings for large insurers can be billions of euro/dollars over a number of years.
- Examples:
    - Zurich Insurance Group,
    - Willis,
    - XL Capital
- Benefit to the Irish Government cannot be overstated – employment, tax revenue

Potential Changes

- Intense pressure from other EU member states.
- Intense pressure from the United States government.
- Consider 2 scenarios:
  – Scenario 1: Irish Corporate Tax Rate remains unchanged
  – Scenario 2: Irish Corporate Tax Rate increased to desired EU levels

Scenario 1- No Changes

- Obama initiates crackdown on Bermuda as a tax haven.
- Flight of capital outwards from Bermuda as insurers/reinsurers seek a more cost effective headquarters for their operations.
- Ireland remains a very attractive and cost effective location - inward flight of capital to Ireland .
- Helped by the fact that Irish Revenue Commissioners have in place a programme called the “Special Assignment Relief Programme”.
- Relocation of headquarters should lead to greater employment opportunities for all actuaries working in the non-life(and life) sector.
- Positive outcome!

Scenario 2 – Corporate Tax Rate Increased

- Irish Corporate Tax Rate increased to desired EU levels.
- Profits of non-life insurers take a considerable hit.
- Ireland no longer the cost effective location it once was.
- Insurers/reinsurers seek alternative locations - search for new lower tax environments begins.
- Insurers/reinsurers switch legal headquarters and a flight of capital from Ireland entails.
- For Irish non-life insurers/reinsurers the result could be devastating- loss of employment inevitable!

Conclusion

- Ireland is thankfully not seen as a tax haven in the eyes of the US government - at least for the immediate future.
- Possible that Ireland will benefit from President Obama’s crackdown on tax havens like Bermuda (as outlined in Scenario 1).
- Irish non-life companies are currently in a much more favourable position than their European counterparts as they benefit from such favourable tax treatment on their profits.
- Long may it continue!

Further Info

- See Current Topics Paper for further details on:
  – Impact of the Financial Crisis on General Insurers

Pensions

Kevin Begley, Towers Watson
Emma Townley, Mercer

Agenda

- Defined Benefit Schemes
  - Trends
  - Pensions Board Measures
- Defined Contribution Schemes
  - Trends
- Other Topics
  - Professional issues
  - Legislation update

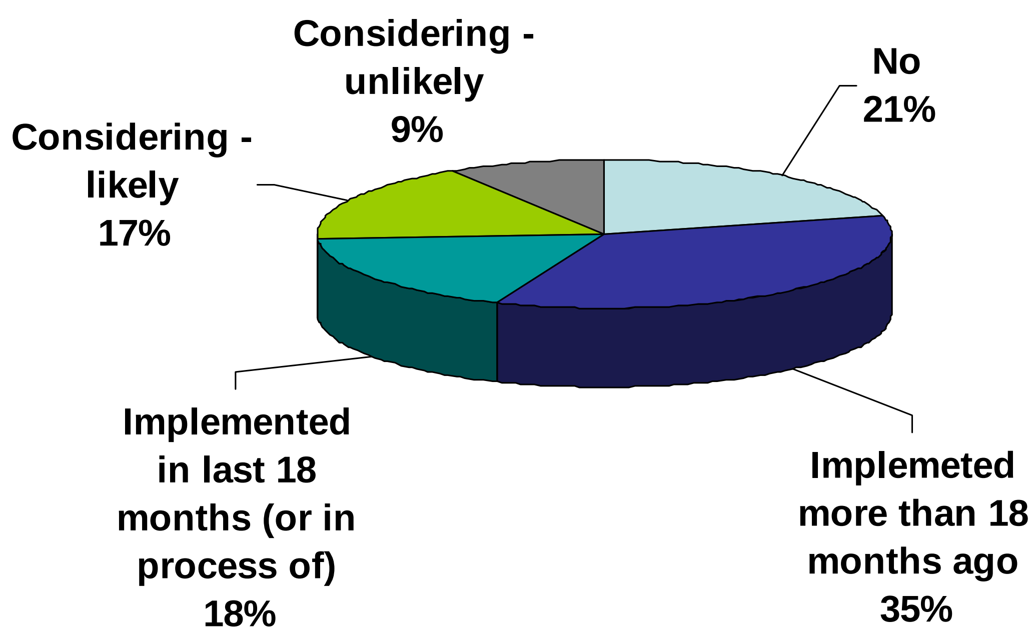
DB Schemes - Trends

- Decline in DB
- DB Scheme Closure to New Employees
- Removal of Future Accrual
- Main DB Plan Wind Up

Decline in Defined Benefit

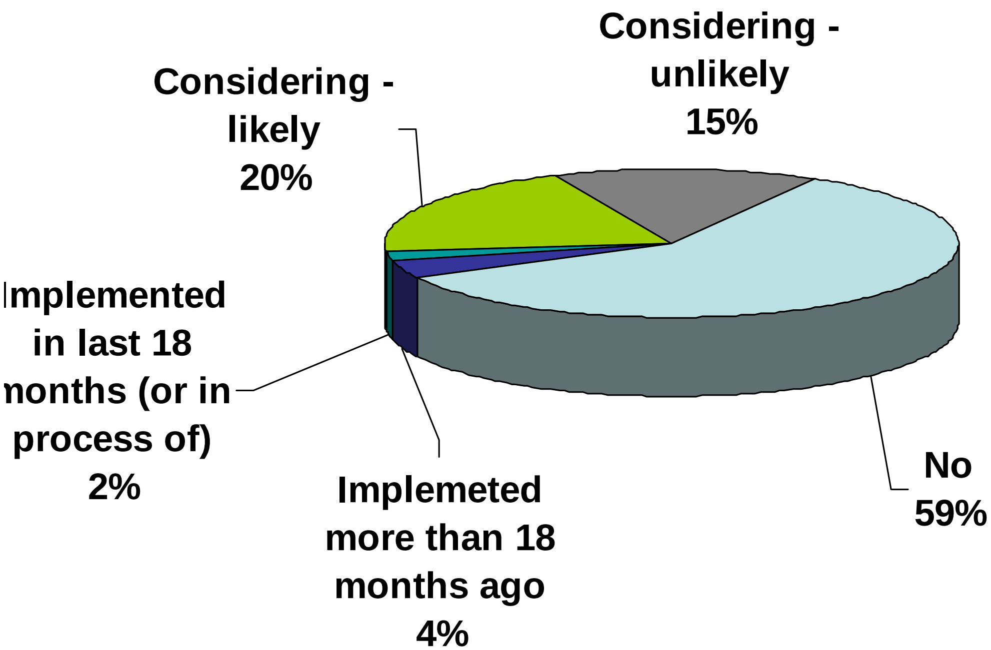
- Companies offering DB only
  - 2002 : 67%   2007 : 37%
    (IAPF Survey 2007)
- Reasons
  - Increase in Cost
  - Accounting
  - Compliance
- Closure
  - 61% of DB schemes now closed
    (Pensions Board DB Survey November 2009)

DB Scheme Closure to New Employees



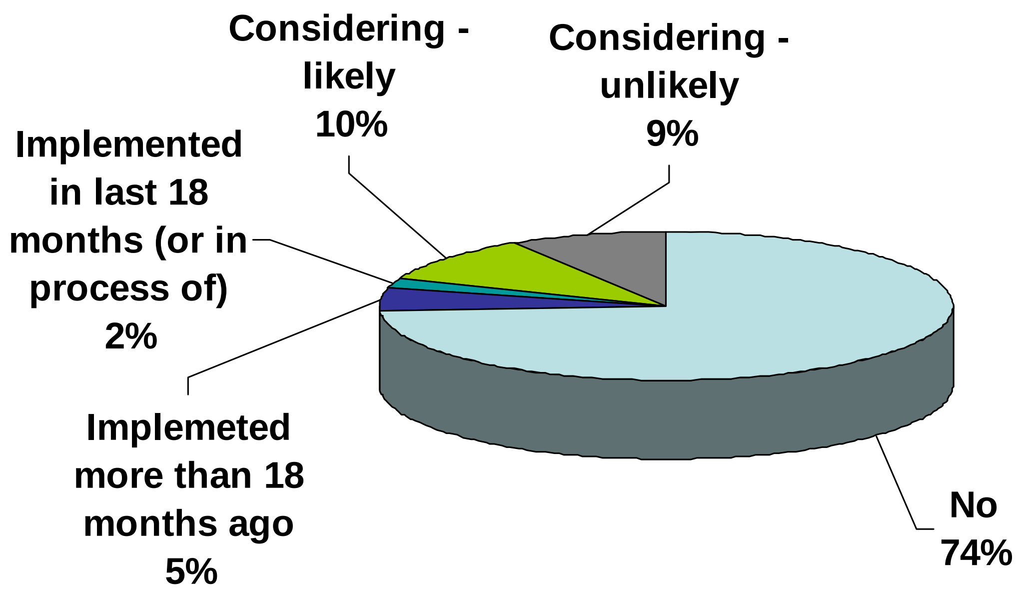
Source : IAPF DB Survey October 2009

Removal of Future DB Accrual



Source : IAPF DB Survey October 2009

Main DB Plan Wind-Up



Source : IAPF DB Survey October 2009

Pensions Board Measures

- Minimum Funding Standard
- Timelines for Certification
- Section 49(3)
- Section 50/50A

Minimum Funding Standard

- Minimum Funding Standard (MFS) = statutory valuation
  which tests whether:

  Assets of scheme > Liabilities of scheme

  <u>if</u> scheme had wound up on date of calculation.
- Funding Proposal = if scheme fails MFS, plan such that scheme will meet MFS within specified period

MFS Cont.

Funding Position

- Approximately 80% of DB schemes fail the MFS
- Approximately 35% of DB schemes have coverage levels less than 50% for active/deferred members

  (Pensions Board DB Survey November 2009)

Timelines for Certification

- Annual Actuarial certification
  - Does scheme meet the MFS? **or**
  - Is scheme "on track" (if Funding Proposal already in place)

- Previously
  - Fail MFS **or** "off track" => Funding Proposal required within 12 months

- Pensions Board Extension
  - Fail MFS **or** "off track" in the period 31 Dec 2007 to 31 Dec 2008 => Funding Proposal required within **24** months
- Further Pensions Board Extension
  - A scheme whose deadline for filing a Funding Proposal expires before 30 June 2010 is allowed to adopt 30 June 2010 as a revised date.

Section 49(3)

- Previously
  - Section 49(3) applications limited to max Proposal term of 10 years.

- Pensions Board change
  - Section 49(3) applications may now be approved for terms > 10 years

- Considerations in granting extension beyond 10 years:
  - Contribution Rate - extent longer term reduces rate below a 10 year rate
  - Employer Guarantee - existence and quality
  - Investment strategy proposed
    - extent Scheme will be exposed to investment risk during funding period
    - evidence fully considered by Trustees
  - Exceptional differentiating circumstances

Section 50/50A

- Section 50 (Pensions Act) allows benefits to be reduced, at order of Board
- Previously
  - only accrued benefits for active members could be reduced under Sec. 50
- Pensions Board change
  - accrued benefits for deferred members and post retirement pension increases can now be reduced (existing pensions for pensioners cannot).
- Pensions Board will only consent if satisfied future application unlikely
  => Trustees required to demonstrate that they have considered (in detail):
  - Benefit policy
  - Funding policy
  - Investment Strategy
  - Risks and responses

DC Schemes – Trends

- DC is predominant approach for future pension provision for new hires.
  - 88% of DC schemes commenced post 1990 *(IAPF Pensions Market Survey 2007)*
- Contributions - Average Employer rate was approx 7% (in 2009)
- Investment - IAPF Guidelines for DC Trustees
- Annuity Purchase Deferral Option – Dec 08 to Dec 10

Further Info.

- Professional issues
  - ASP PEN 12 – SORP
- Legislation update
  - Pensions Act 2008
    - Trustee Training
    - Registered Administrators
  - Pensions Act 2009
    - Winding Up Priority Change
    - PIPS

Conclusions

- Current Topics 2007

  -v-

  Current Topics 2009/2010

- Current Topics 2011?

- Paper “Current Topics 2009/2010” on SAI website
  – new students!

Questions?