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Journey of Solvency Regulations-2007 and beyond

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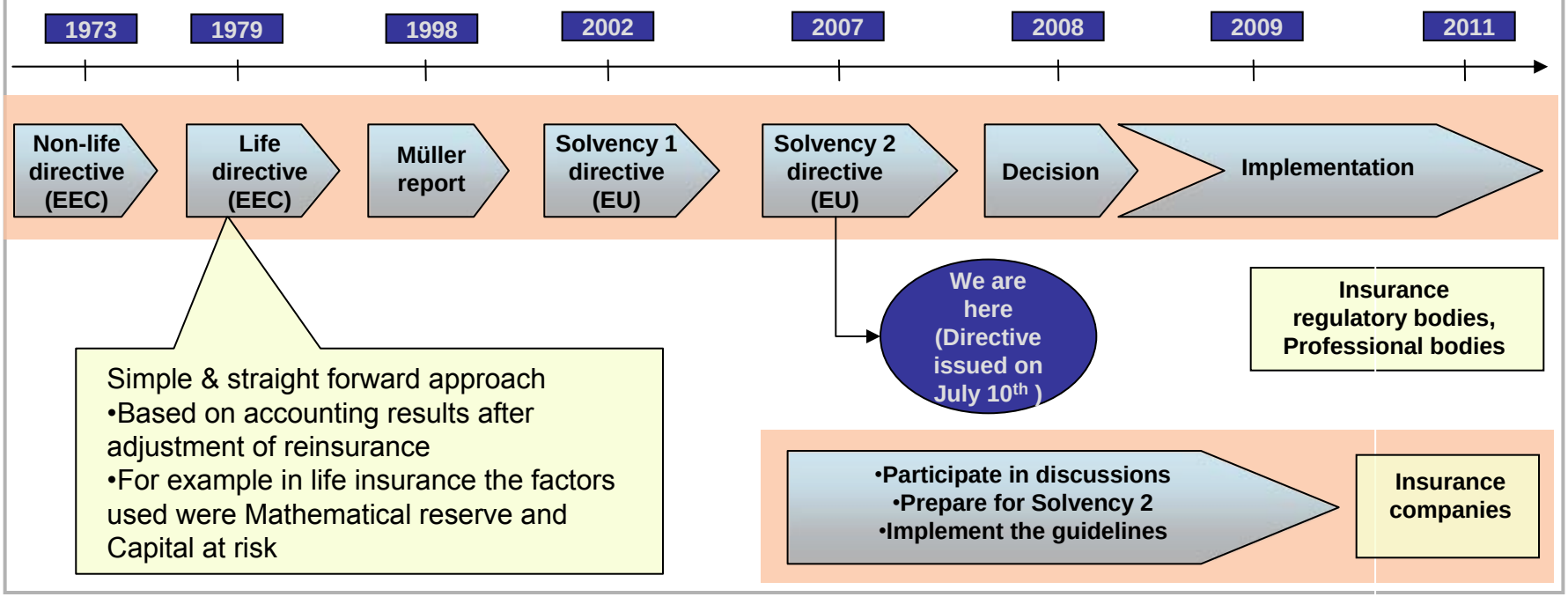
Agenda

- Development of Solvency Regulation (Solvency II) in Europe
- Different perspectives
- Solvency II – Adoption Challenges
- Conclusion

Solvency regulations - Context

Insurance has been one of the most regulated industries

- Regulator protects policy holder interests through solvency norms and Solvency test
- Regulator stipulates trigger control levels towards Minimum solvency requirement



Pre solvency I Era- Required Solvency Margin Calculations (Life insurance)

Features

- **Required Solvency Margin (RSM)** norms to be met on the day of the latest balance sheet
- If RSM falls below **Minimum Guaranteed Fund**, it triggers a 'warning signal'
- **'Wind up'** needs to kick in if it falls below the RSM level

Calculations

- One third of the Minimum Solvency Margin was compared with the guarantee fund to arrive at the minimum guarantee fund. In essence, the calculation involved:

A: Minimum Solvency Margin (or Required Solvency Margin)
= 4% mathematical reserves (gross of reinsurance) + 0.3% capital sum at risk

B: Guarantee fund = 800,000 ECU in 1979

C: Minimum Guarantee Fund = **max (1/3 A, B)**

Pros

- Simple to apply
- Easy to administer

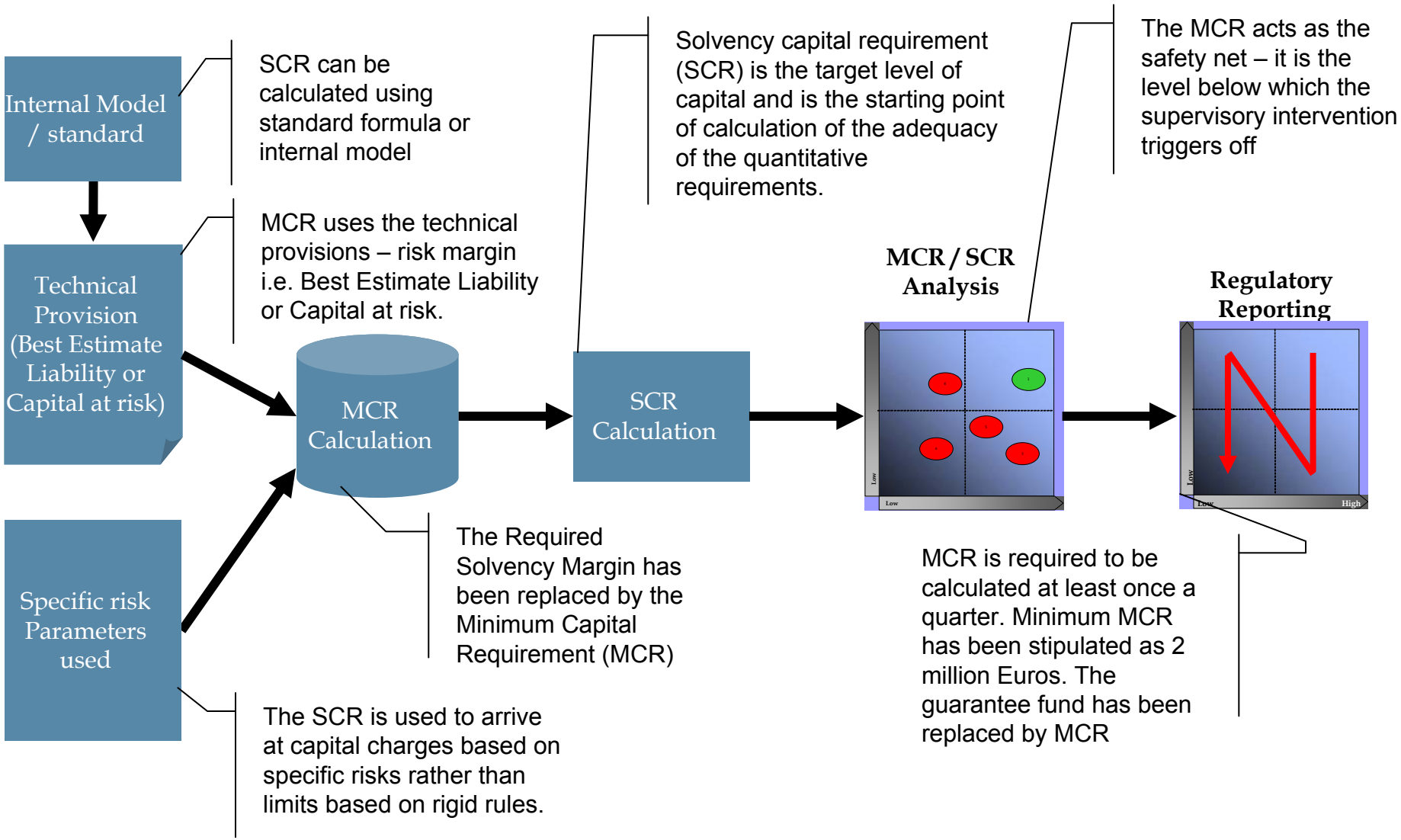
Cons

- Did not consider risks explicitly
- Lacked capability to cope with increase in market complexity and raising customer protection needs
- Assets could be valued at historical or market costs
- Increase in mathematical reserves led to increase in required solvency margin – did not work favorably to insurance companies

Solvency I Era- Introduced in 2002 to lift the industry to Solvency II level

Why Solvency 1?	Pros	Cons	Salient Features
• Included a few additional parameters in solvency evaluation • Index to take care of long tail claims • Solvency margin for unit linked contracts	• Simple and better than the early regulations • Compliance management was easy and inexpensive • Better policy holder protection	• Does not consider latest market changes in equity markets, interest rates, ALM & Op risk • Increase in life expectancy • Need for a holistic approach	• No need to meet Solvency requirements at all times • Member states could stipulate more stringent requirements if they so desired
Need for Additional Parameters	**Simple**	**Fails to absorb market developments**	**Led to the development of FSA, SST etc.**

Solvency II – Process: Post Implementation



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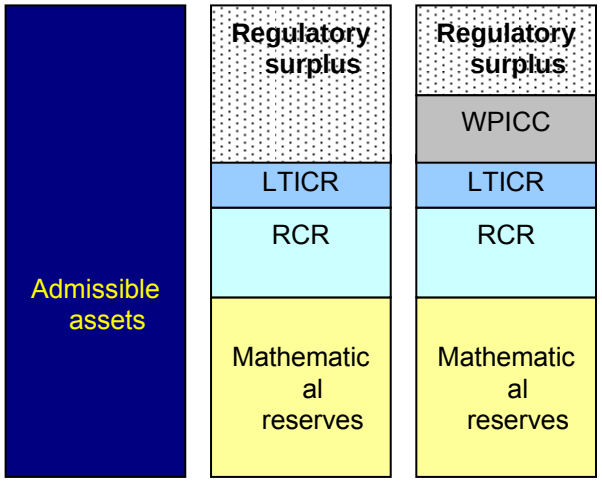
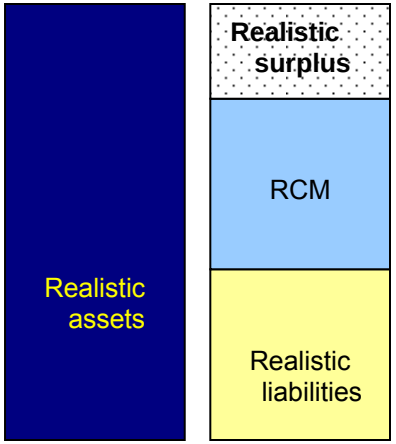
Different Perspectives- FSA of United Kingdom and Solvency II

- FSA found capital requirements under Solvency I non-risk sensitive and inadequate
- Solvency II was taking time to come into force
- FSA adopted 'Twin Peaked' approach asking firms to hold a level of capital (above MCR)
- "Twin-peaked" approach helps the life insurance companies in:
    - Establishing link between provisioning and capital requirements for "with profits" business
    - Determining whether "top up" capital is needed to cover potential discretionary bonuses.
    - Companies having "with profits" portfolio are required to hold With-. Profits Insurance Capital Component (WPICC)
- <u>Solvency requirements for a life insurance company are:</u>
  - CRR (Capital Resource requirement) = max (MCR, ECR) where
    - MCR (Min Capital Requirement) = max (Base Capital Resource Requirement, Sum of Long term Insurance Capital requirement (LTICR) and Resilience Capital requirement (RCR) that represents the capital required to cover the market risk under the shocks (fall in equity values, property values etc.)
    - ECR or Enhanced Capital requirement = LTICR + RCR + WPICC (where WPICC = 0 for companies that do not follow twin-peak)



Peak 1 (Regulatory peak)



Peak 2 (Realistic peak)

Different Perspectives- Swiss Solvency Test (SST) of Switzerland and Financial Framework of Netherlands

Switzerland

Industry Impact

- Swiss Solvency Test (SST) was introduced in 2003
- Companies are allowed to choose between standard and internal models
- Compliance timelines
  - Large companies : 2006
  - Small companies, groups, reinsurers : 2008

Calculation components

- Involves calculation of Min capital & a Target capital
- Min solvency capital is calculated based on balance sheet
- Standard models available for calculating :Market, Credit & Insurance risks
- Market Consistent Value = Best Estimates (BE) + Market Value Margin (MVM)
- MVM : calculated using Cost of Capital approach

Special Features

- The SST values all assets and liabilities market consistently. Consistency is the hallmark of SST. Under SST it implies consistency amongst:
  - Asset and Liability valuations
  - Valuation and Quantification of risks
  - Solvency tests and SCR at Group vs. Entity level
  - Insurers and Reinsurers
  - Life and Non-life

Netherlands

Industry Impact

- Dutch system proposes to align supervisory regime with statutory accounts
- Follows New financial Assessment framework

Calculation components

- New Financial Assessment Framework consists of the following elements:
  - Assets and liabilities values to be realistic
  - The solvency test has to be performed each year
  - Each company has to take into account its strategies, objectives etc. on a going-concern basis

Special Features

- Realistic value of insurance liabilities = BE + Risk surcharge
  - Risk surcharge is calculated using internal models (needs to be stochastic)
  - Operational Risks are not quantified currently

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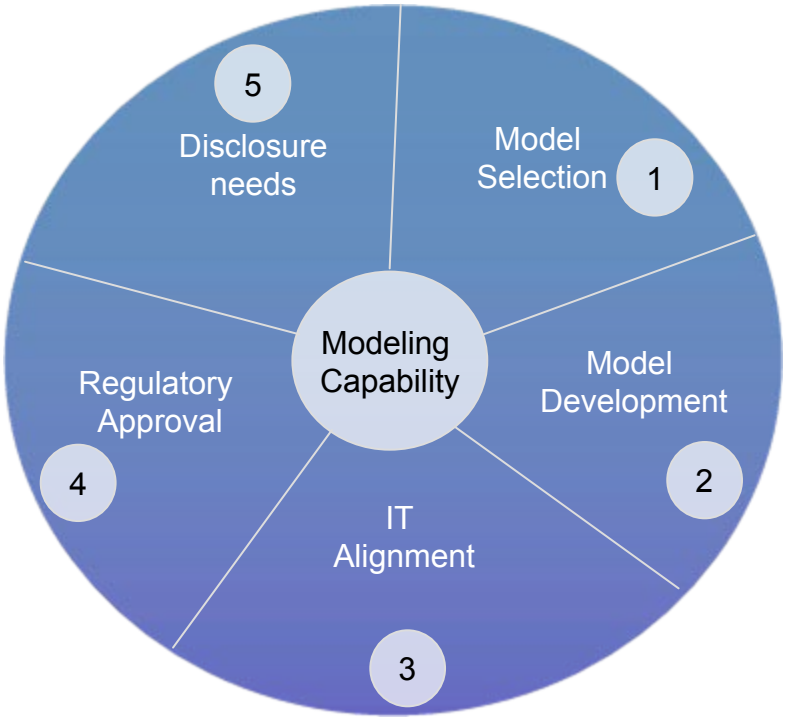
Adoption Challenge 1: Actuarial Modelling

Disclosure

As against Standard models Internal models have to be transparent to fulfill the disclosure requirements

Selection

SCR calculation involves selection of proper models. Standard / internal / partial models can be adopted



Development

Strong modeling capability would be needed. Limited modeling capability may push higher capital needs

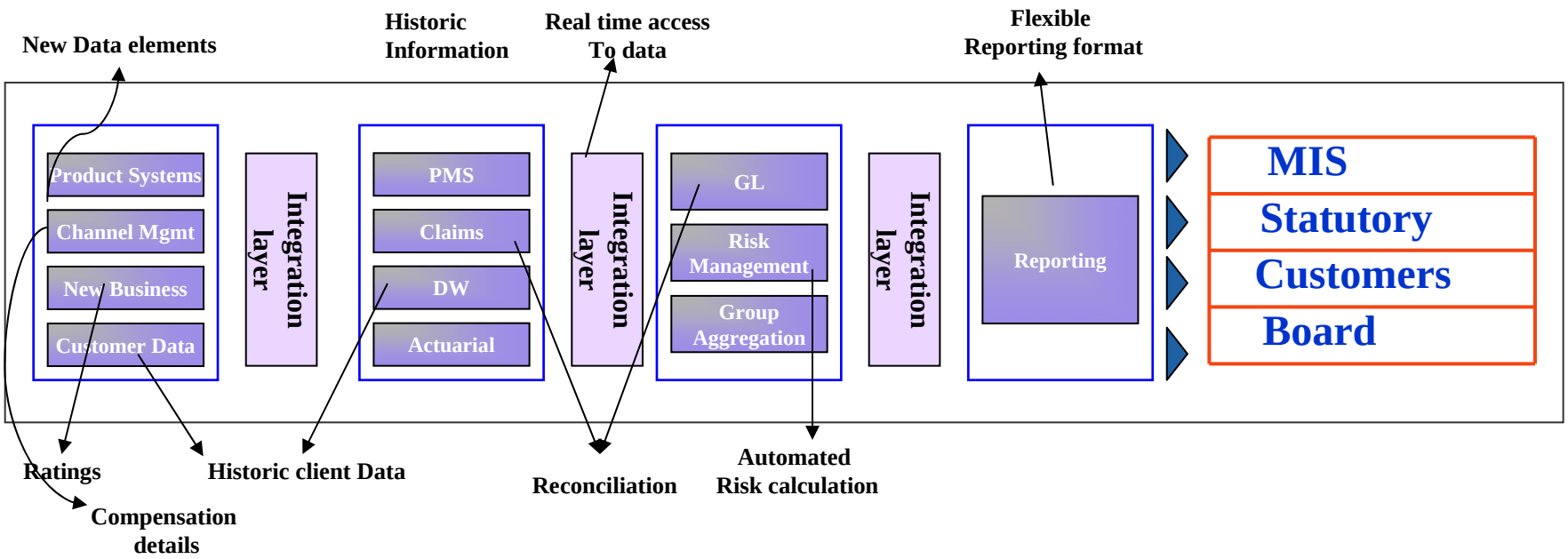
Approval

Internal models require regulatory approval. Approval process could be laborious.

Information Technology

Gap between complex models & IT needs to be filled. Historical Data requirements are to be fulfilled

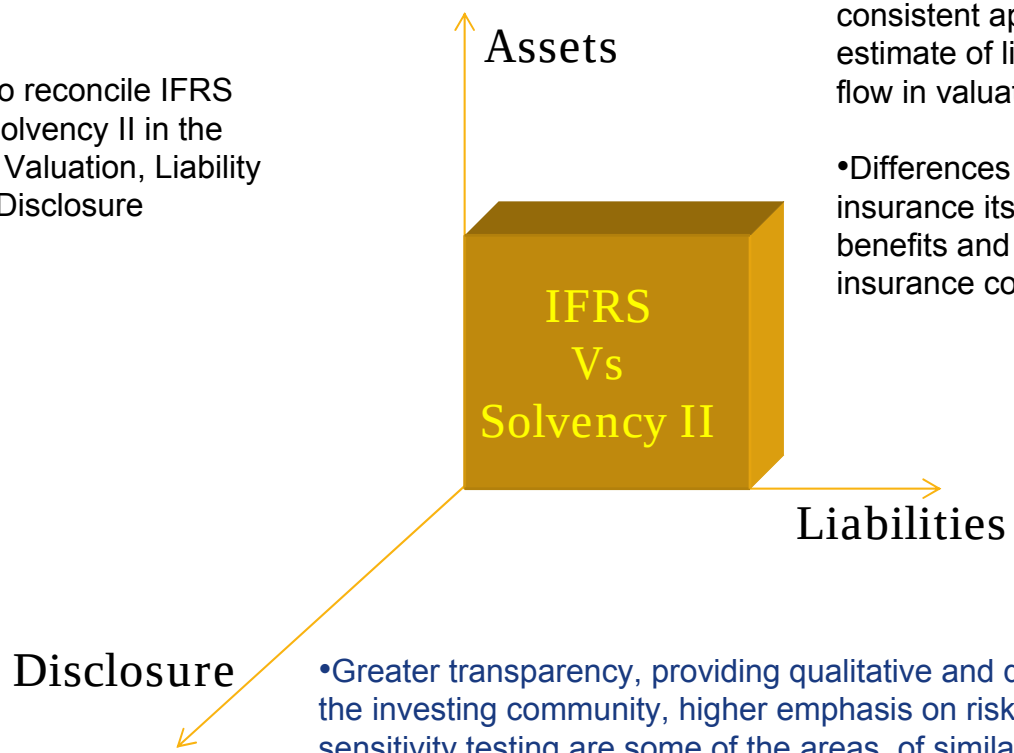
Adoption Challenge 2: Information technology & Data



• Data Consistency	• Multiple systems and inconsistent data models • Current system interfaces to reporting will not provide robust reporting mechanism
• Data Requirements	• Requirements for data that does not exist within current systems • Incorporation of New data elements may be difficult in legacy systems
• Data Storage	• Historical and, potentially, external data required • Not all source systems are capable of storing the relevant data
• Reporting requirements	• Diverse reporting requirements for numerous stakeholders • New systems to meet new regulatory reporting requirements

Adoption Challenge 3: Reconciliation with IFRS

•Challenge is to reconcile IFRS Phase II and Solvency II in the areas of Asset Valuation, Liability Valuation and Disclosure



•There are agreements between Market consistent approach towards provisions, best estimate of liability and use of discounted cash flow in valuation.

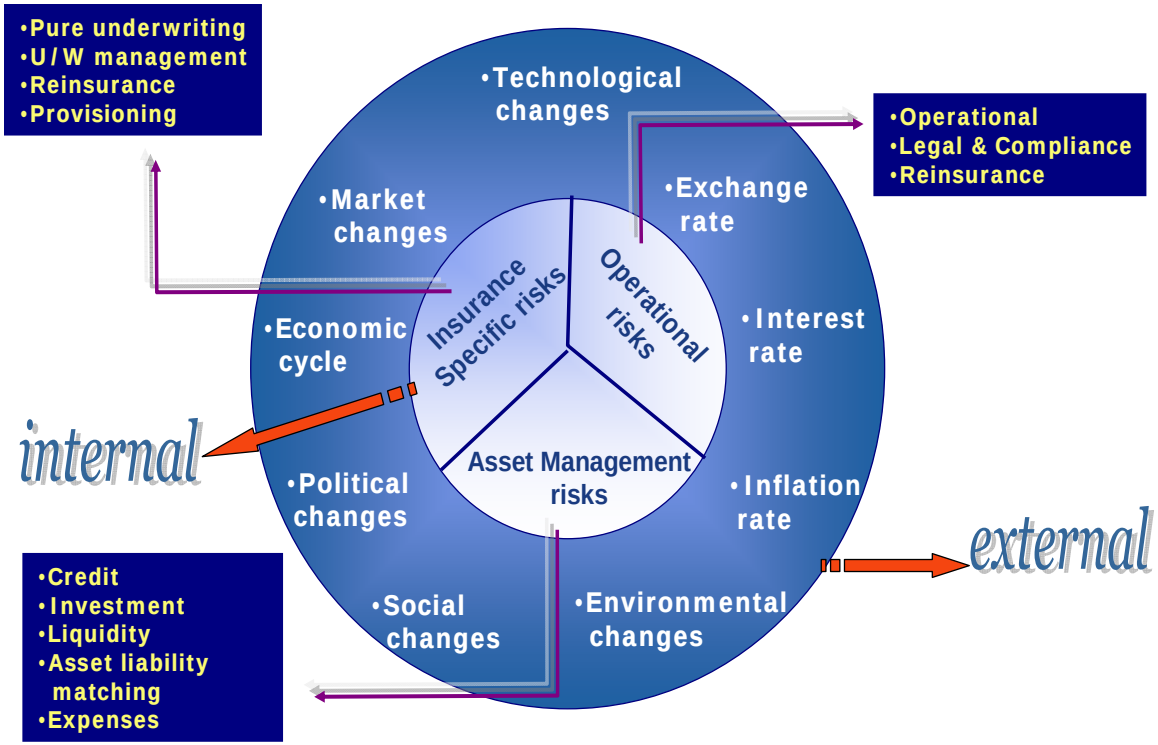
•Differences come from the definition of insurance itself, treatment of diversification benefits and guaranteed benefits under insurance contracts.

•Greater transparency, providing qualitative and quantitative information to the investing community, higher emphasis on risk management and sensitivity testing are some of the areas of similarities between IFRS Phase II and S II.

•Major differences come from the reporting level of detail, definition of insurance contracts and reporting materiality versus relevance to the supervisor

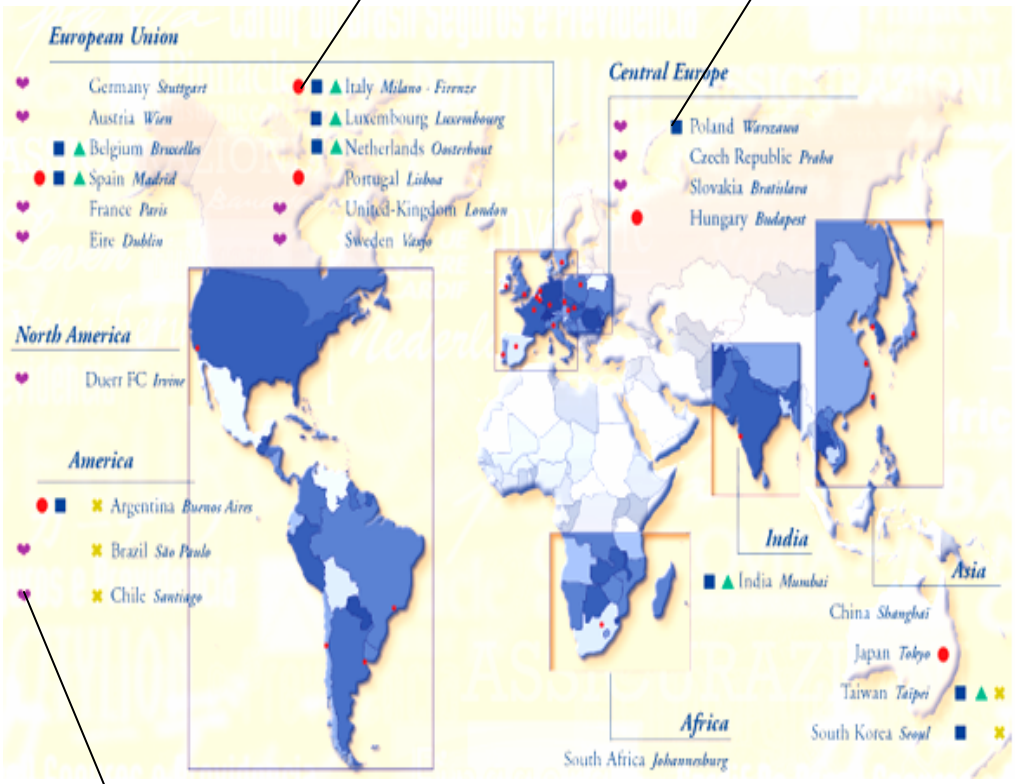
Adoption Challenge 4: Risk Management

- Risk Managers are not sufficiently empowered in all organizations
- Lack of role clarity with compliance and internal audit functions create confusion
- Increasing importance of risk management calls for a cultural shift in many organizations
- Operational risk related challenges remain
- Collecting and integrating external data would be essential
- Complexity would go up with the increasing number of risks



Adoption Challenge 5: Diversification Benefits

- Diversification brings in benefits of reduced capital
- Diversification could be done at a LOB level or across risk types
- Challenges
  - Need for transparent calibration standards
  - Supervisory cooperation is critical to reap full benefits of diversification
  - Smaller firms / single line companies would be at a disadvantage
  - Adverse impact on capital if the risk management framework is not robust



Non-Life Insurance

Reinsurance

Life Insurance (Individual)

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- √ The new directive for Solvency II introduces a SCR (Solvency Capital requirement) that is different from the target levels that exist in most countries.
- √ The Directive also sets out a Minimum Capital Requirement (MCR) based on auditable data. Falling below the MCR will demand immediate supervisory intervention from the regulators.
- √ Given the various levels of maturity and sophistication at which the member countries are operating, implementing the directive would be a challenge.
- √ Insurance companies need to come out with a well thought out action plan to ensure a smooth journey towards compliance.
- √ There will be additional responsibility for all stakeholders within the insurance companies (senior management, board etc.) and for regulator (sufficient seniority and ability to engage with the senior management and board) as they have to ensure adherence to the principles of solvency supervision

Thank You

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