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# Capital Efficiency for Multinational Insurance Operations

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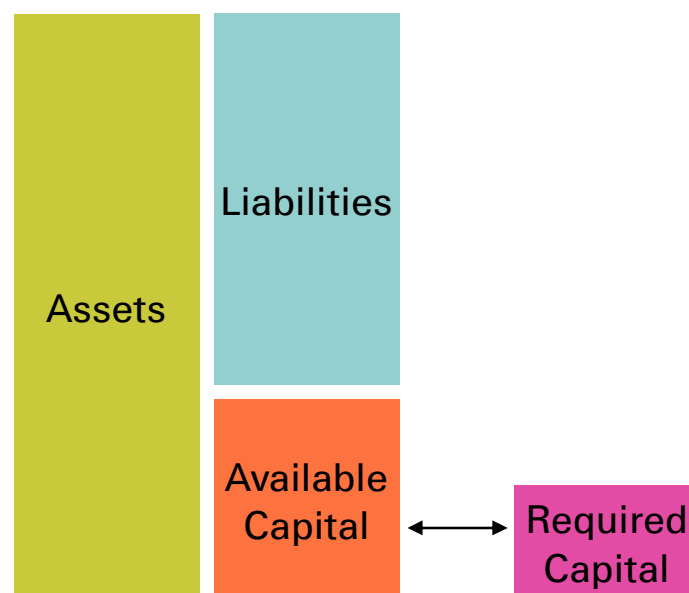


# Agenda

- Introduction
- Capital adequacy approaches
- Legal and legislative implications
- Tools for efficiently managing capital
- Summary and conclusion



# Introduction: Definition of capital



- Multiple definitions of capital exist
- Available Capital for insurance companies is typically defined as Net Worth (Assets minus Liabilities)
  - subject to different valuation methods
  - and perspectives (shareholder vs policyholder)
- Required capital is typically determined based on the risk profile and/or volume of company
  - set by various stakeholders such as regulators, rating agencies, and internal management

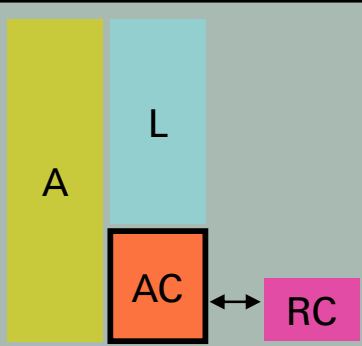


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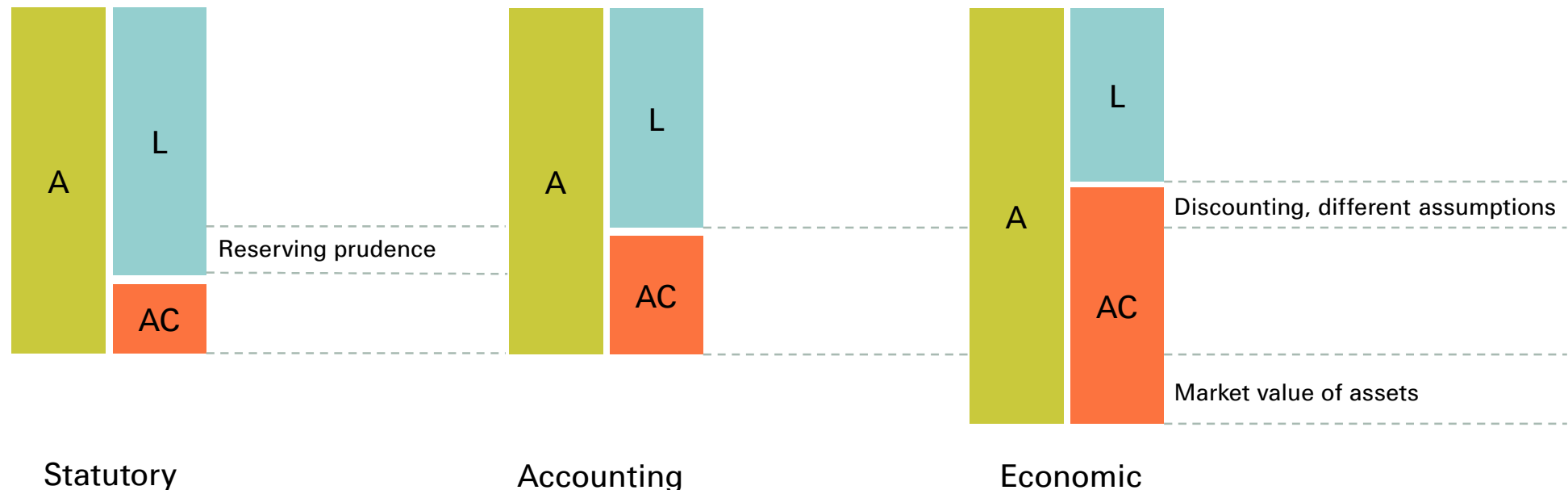
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# Capital Adequacy: Impact of Valuation basis on Available Capital



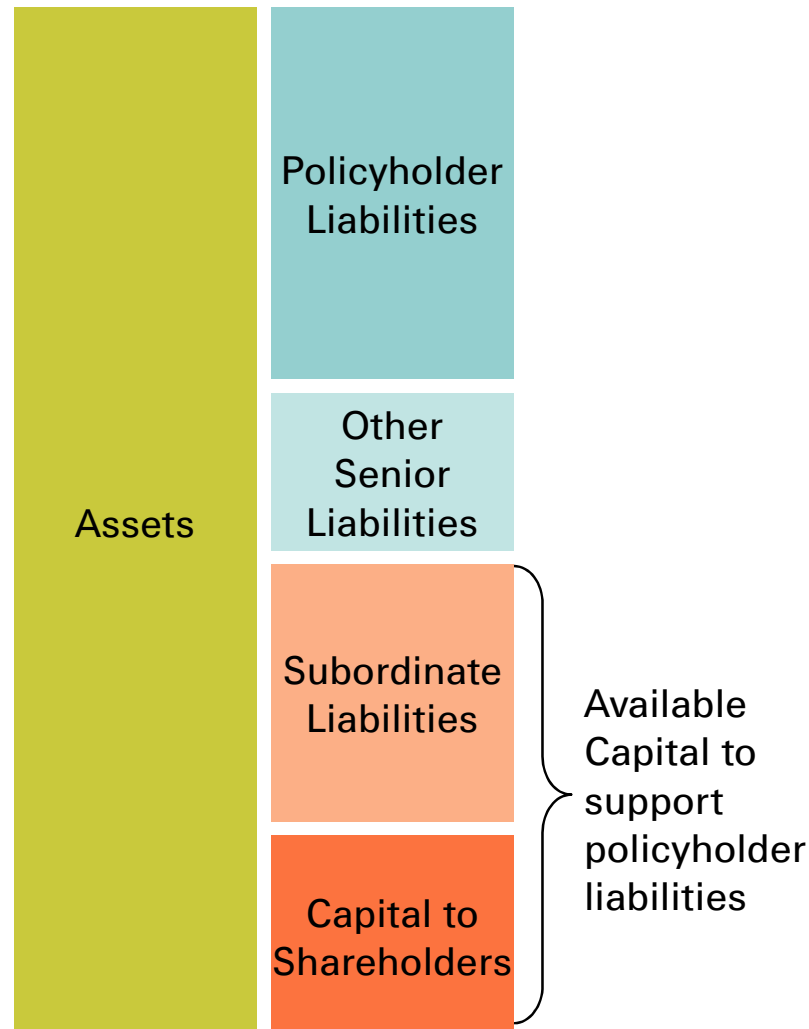
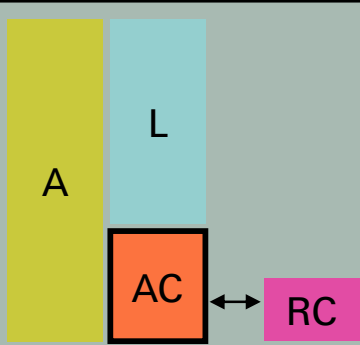
*Illustrative*



- Accounting and statutory bases converging towards an economic view
  - e.g. IFRS Insurance Contracts Phase II, US GAAP Fair Value Accounting
  - e.g. Solvency II and Swiss Solvency Test in Europe



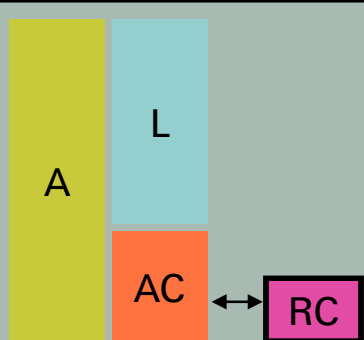
# Capital Adequacy: Available Capital for Policyholders not Shareholders



- Solvency regimes focus insurer's ability to meet policyholder liabilities in times of financial distress
- Hence liabilities subordinated to policyholder liabilities can be eligible towards Solvency Available Capital
- Subordinate instruments include:
  - subordinated debt
  - hybrid capital such as mandatory convertible securities
  - eligibility varies with duration (perpetual most favoured)

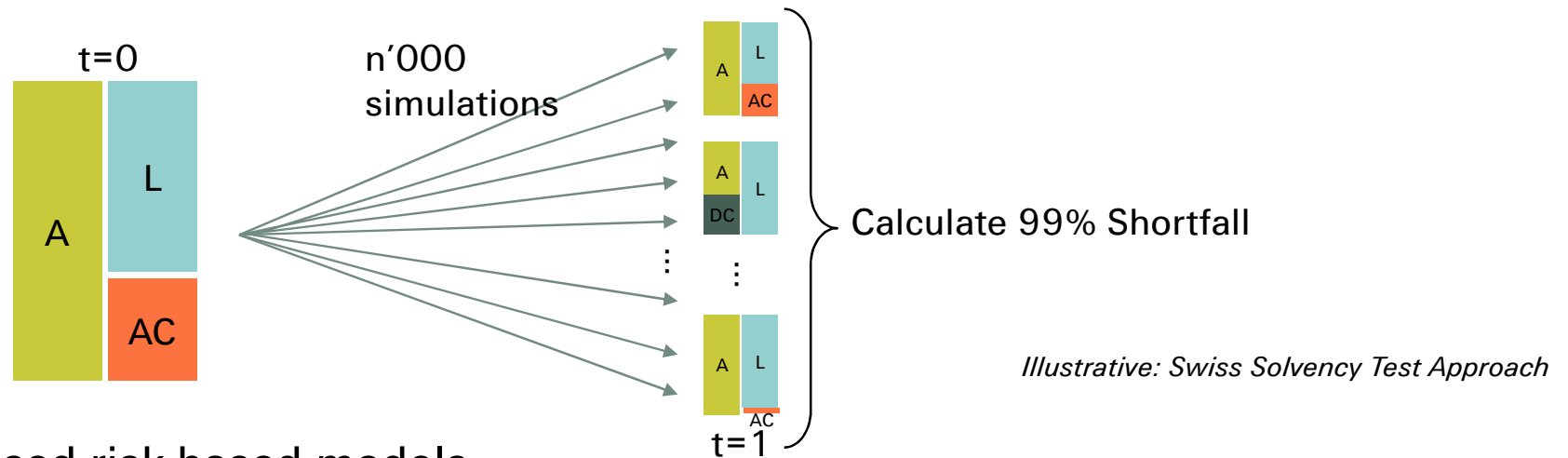
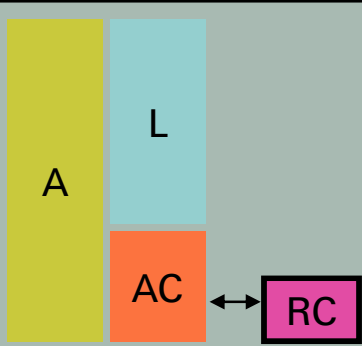


# Capital Adequacy: Required Capital Approaches (rule based)



- Rule based simple factor approach
  - specified % on relatively few past financial figures such as premiums or average claims
  - may include limits on eligibility of assets (including reinsurance)
  - usually aggregated using simple addition
  - e.g. Europe Solvency I
- Rule based Risk Based Capital (RBC) approach
  - specified % on past financial figures, differentiated by factors such as line of business or risk factors
  - usually includes limits on eligibility of assets
  - usually aggregated using a covariance calculation reflecting diversification
  - may include dynamic solvency testing in addition
  - e.g. US NAIC RBC, UK Enhanced Capital Requirement

# Capital Adequacy: Required Capital Approaches (principles based)



## ■ Principles based risk based models

- regulator specifies risk management and control principles that must be adhered to
- requires (usually internal) risk based modelling of the balance sheet impact on a forward looking basis (usually one year)
- risk modelling must include default and concentration risks, hence no artificial limits on eligibility of assets
- specified risk measure such as Shortfall or Value at Risk (VaR)
- reflecting full diversification within insurance company
- e.g. Swiss Solvency Test, Europe Solvency II



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# Legal and Legislative Implications: Ownership, Mobility and Liquidity

- Forms of operations internationally (subject to local constraints):
  - direct fully owned subsidiary
  - sub-holding structure
  - branch structure
  - split ownerships
  - joint ventures
  
- Considerations
  - multiple solvency regimes applicable, potentially also at sub-group level (e.g. Europe Insurance Groups Directive)
  - mobility of funds, including legal procedures to capital injections or dividend payments
  - collateral requirements
  - fiscal regimes and existence of double tax agreements

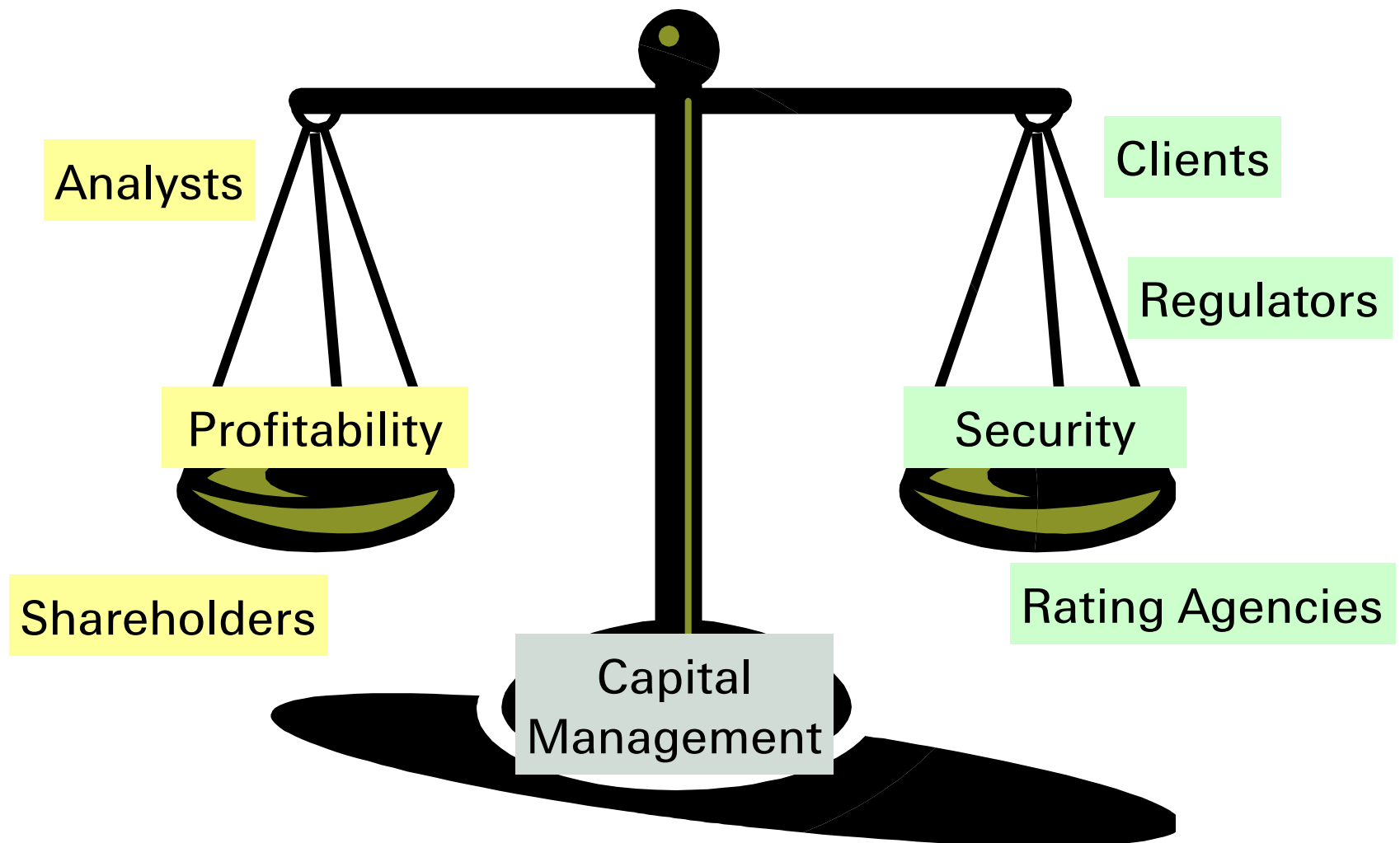


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# Capital Management Objective: Finding the balance between profitability & security

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# Capital Management Tools for Multinational Insurance Operations

## External

Equity issuance

Hybrid capital and debt

Dividends and share buybacks

Reinsurance

Securitizations

Hedging programmes

Swaps

## Internal

Capital and cash contributions

Intra group loans

Dividend payments

Intra group cessions

Intra group guarantees

Letters of credit

Optimising legal entity structure



# Capital Management: Steering Capital at all levels

- Efficient management of capital requires appropriate allocation and steering of this resource
  - cost of capital approach
  - adopted in valuations, planning, steering and pricing
  - requires method of allocating diversification impact (e.g. Euler's principle) to business units / business lines
  
- Incorporates all relevant views on capital
  - regulatory solvency
  - internal risk
  - rating
  
- Performance measurement should include reference to capital efficiency
  - e.g. Return on Equity, Risk Adjusted Return on Capital



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## Summary and Conclusion: Role of the Actuary

- Capital as Net Worth for insurance companies provides the necessary security for operations
- Varying solvency and rating regimes currently exist, with convergence towards an economic risk based approach expected
- Legal and legislative requirements add additional complexity and necessitates efficient capital management
- Variety of tools available to mobilise funds, transfer risks and inject liquidity to optimise capital management
- Capital steering needs to be embedded within insurance operations
- Actuaries are knowledgeable in valuations, solvency and pricing, hence are uniquely placed to steer insurance companies towards improved capital efficiency



# Questions ?

For further information please contact

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