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International Insurance Regulation 201: IAIS Development of Insurer Capital Standards

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Webinar

Moderator

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Introduction

- The International Association of Insurance Supervisors (IAIS) is developing group solvency and capital standards for large multi-national insurer groups that could have an impact on certain domestic and international insurers.
  - In turn, these standards could affect the price and availability of insurance products to businesses and consumers.

Introduction

- The new IAIS solvency and capital standards will include:
  - A basic capital requirement (BCR) for global systemically important insurers (G-SIIs);
  - A higher loss absorbency (HLA) requirement for G-SIIs, applicable in addition to the BCR; and
  - An insurance capital standard (ICS) for internationally active insurance groups (IAIGs), which is part of the Common Framework for the Supervisions of IAIGs (ComFrame).

Definitions

- IAIS – International Association of Insurance Supervisors
  - International standards-setting organization that has been directed by the Financial Stability Board (FSB) to promote effective and globally consistent supervision of the insurance industry to maintain global financial stability.

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Definitions

- G-SII – global systemically important insurer
  - Designation by the Financial Stability Board (FSB) of a multinational insurance group that could harm the global financial system if it were to become insolvent
  - Nine companies have been designated:
    - United States: American International Group Inc., MetLife Inc., Prudential Financial Inc.
    - China: Ping An Insurance (Group) Company of China Ltd.
    - Europe: Allianz SE, Assicurazioni Generali SpA, Aviva plc, Axa SA, Prudential plc
    - The FSB is currently considering criteria for designating reinsurers as G-SIIs.

Definitions

- IAIG – internationally active insurance group
  - Large international group that has:
    - Total assets of over $50 billion and gross written premium exceeding $10 billion; and
    - Premium written in three or more jurisdictions (with at least 10 percent of premium written outside the “home” jurisdiction
  - Includes all nine G-SIIs
  - The IAIS estimates that approximately 50 multinational insurance groups will be identified as IAIGs

Definitions

- BCR – basic capital requirement
  - Group capital framework created by the IAIS to measure risk associated with the assets and liabilities (insurance and non-insurance) of a G-SII
    - Minimum amount of capital a G-SII must hold
    - Deliberately simplistic design
  - Finalized in 2014
  - Privately reported by G-SIIs to group-wide supervisors beginning in 2015

Definitions

- HLA – higher loss absorbency
  - Additional capital requirement being developed by the IAIS for G-SIIs, on top of the BCR, to reflect "their systemic importance in the international financial system"
  - HLA consultation document was released for comments by the IAIS in late June 2015
  - Comments are due August 21
  - Expected to be finalized and approved by the IAIS in late 2015 and reported beginning in 2016 on a confidential basis

Definitions

- ICS – insurance capital standard
  - The ICS is a group capital standard focused on the overall solvency of IAIGs and G-SIIs.
    - It is not intended as an accounting standard or as a tool to measure or forecast earnings.
    - It is not intended to affect or replace existing arrangements or capital standards in local jurisdictions.
  - Intended to be more risk sensitive and complex than the BCR.

Definitions

- The initial ICS framework (Version 1.0) is expected to be completed in 2017 and reported beginning in 2018 on a confidential basis.
- The finalized ICS (Version 2.0) is targeted for adoption in 2019.
- It is expected that the ICS will replace the BCR as a foundation for the HLA.
- None of the BCR, HLA, or ICS would be legally required in the United States unless formally implemented by federal/state statute, regulation, or otherwise.

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Basic Solvency Principles

Liz Brill, MAAA, FSA, JD

Basic Solvency Principles

- Both international and domestic policymakers are reviewing the BCR and the proposed ICS and HLA.
- To help guide them through this process, the Academy's Solvency Committee has created a comprehensive set of principles that we believe are essential to the development of effective group solvency and capital standards for insurers.

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Basic Solvency Principles

- These principles include:
  - Creating a group solvency regime with clear regulatory purposes and goals
  - Establishing metrics for standards that are useful to all relevant parties
  - Promoting responsible risk management and encouraging risk-based regulation
  - Taking into consideration local jurisdictional environments

Basic Solvency Principles

- Making solvency standards compatible across accounting regimes
- Minimizing pro-cyclical volatility
- Presenting a realistic view of an insurance group's financial position and exposures to risk
- Using internally consistent assumptions in capital or solvency models
- Focusing on a total asset requirement to ensure insurers can meet obligations and capital is accessible in times of stress

Basic Solvency Principles

- Demonstrating that capital is accessible during times of stress

- Adhering to these principles will help policymakers create and evaluate insurance capital standards that are appropriate for the insurance business model and do not adversely impact U.S. insurance markets or consumers.

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BCR

Novian Junus, MAAA, FSA

BCR Field Testing

- Utilized year-end 2013 balance sheet data and projected future cash flows
  - Point-in-time values were used instead of historical data
- 34 insurance groups covering a wide range of products and geographical markets
  - Includes all nine G-SIIs
- Data collected used to inform BCR design, specific factors, and calibration levels

BCR Field Testing Results

- Average level of the BCR is:
  - 75 percent of the prescribed capital requirement (PCR) for G-SIIs
  - 67 percent of the PCR for all 2014 field testing volunteers

BCR Method – Factors and Risks

$$BCR\ Required\ Capital = \alpha \left[\sum_{i=1}^{4} a_i\ TL_i + \sum_{i=1}^{4} b_i\ TNL_i + \sum_{i=1}^{4} c_i\ NT_i + \sum_{i=1}^{3} d_i\ A_i \right] + \sum_{i=1}^{n} NI_i$$

Source: IAIS BCR for G-SIIs, October 23, 2014

- Where:
  - α (alpha) is the scalar (initially set at 100 percent) to determine the overall BCR level
  - *a*, *b*, *c* and *d* represent the factors applied to the exposures.
  - Traditional life (TL), traditional non-life (TNL), non-traditional (NT), and assets (A) represent the exposures
  - Non-insurance (NI) reflects the charges provided by sectoral rules for non-insurance activities

BCR Method – Factors and Risks

BCR segment	Proxy measure for risk exposure	Factor	Factor value
Traditional Life (TL)			
Protection life	Net Amount At Risk	a1	**0.06%**
Participating products	Net Current Estimate	a2	**0.6%**
Annuities	Net Current Estimate	a3	**1.2%**
Other life	Net Current Estimate	a4	**0.6%**
Traditional Non-life (TNL)			
Property	Premium Measure	b1	**6.3%**
Motor	Net Current Estimate	b2	**6.3%**
Casualty	Net Current Estimate	b3	**11.3%**
Other non-life	Net Current Estimate	b4	**7.5%**
Non-Traditional (NT)			
Variable annuities	Notional Value	c1	**1.2%**
Mortgage insurance	Risk in Force	c2	**4.0%**
GICS & Synthetic GICS	Notional Value	c3	**1.1%**
Other non-traditional	Net Current Estimate	c4	**1.3%**
Assets (A)			
Credit - investment grade	Fair Value	d1	**0.7%**
Credit - non investment grade	Fair Value	d2	**1.8%**
Equity, real estate & non-credit investment assets	Fair Value	d3	**8.4%**

Source: IAIS BCR for G-SIIs, October 23, 2014

BCR Method – Factors and Risks

- Net amount at risk
- Net current estimate of cash flows (life) and reserves (non-life)
- Premium measure
- Notional value
- Risk in force
- Fair value

Source: IAIS BCR for G-SIIs, October 23, 2014

Notional Value

- The notional value:
  - Represents the present value of those payouts that are contractually guaranteed to each policyholder as of the valuation date
  - Is deterministic, independent of jurisdictional accounting standards, and always results in a positive exposure
  - Varies as the book of business ages and captures many of key contract terms

BCR Method – Factors and Risks

- The NI component of the BCR:

$$= \sum_{i=1}^{n} \text{Regulated banking req}_i$$

$$+ \sum_{i=1}^{n} \text{x} * \text{Non-regulated banking req}_i$$

$$+ \sum_{i=1}^{n} \text{Securities and other req}_i$$

Where the summations are taken over by the appropriate number of entities

BCR Method – Comparability

- Market adjusted valuation (MAV) approach: IAIS specified discount curves
  - Based on liquid interest rate swaps or government bonds and adjustment based on investment-grade corporate bond yields on the date of valuation
  - The adjustment was 40 percent of the 10-year unadjusted corporate bond rate
  - Further adjustments for being in the Eurozone and lack of corporate bond market
  - Only provided for certain countries and G-SIIs

BCR Method – Comparability

- Current estimates (CE) without margins
  - Life
    - Probability-weighted future cash flows
    - Contract boundaries
    - Assumptions experience and data quality
    - Value of options and guarantees
    - Policyholder behavior
    - Management actions
    - Use Generally Accepted Accounting Principles (GAAP)/ International Financial Reporting Standards (IFRS) if similar
  - Non-life
    - Discounted value of the claim liabilities held

BCR Method – Comparability

- Difference in the IFRS/GAAP valuation and the CE due to margin over current estimate (MOCE) in capital resources for life
  - The exclusion of margins from liabilities increases core and total qualifying capital resources (QCR)
  - The BCR treatment of MOCE will help provide a comparable basis for the G-SIIs in the HLA
  - The treatment will be further investigated during the development of the ICS

BCR Method – Other Considerations

- Diversification
  - Too complex to reflect in derivation of BCR, implicitly accounted for in calibration level
- Asset-liability matching (ALM) risk
  - Factor in the BCR formula creates challenges because it may be too simple
- Calibration level
  - Targeted between prescribed and minimum capital requirement

BCR Method – QCR

- QCR are either core or additional
  - Core capital is "comprised of qualifying financial instruments and other capital elements that contribute to financial strength, absorb losses both on a going-concern and winding-up basis and otherwise contribute to survival through periods when the G-SII is under stress"
  - Examples are MOCE, surplus funds, and accumulated other comprehensive income (OCI)
  - Field testing data shows that approximately 83 percent of G-SII GAAP capital resources are classified as core

BCR Method – QCR

- Additional capital is “comprised of qualifying financial instruments and other capital elements that protect policyholders in winding-up”
  - The key characteristics of capital instruments that qualify as additional capital are subordination and availability to absorb losses in winding-up
- Examples of excluded resources are goodwill and deferred tax assets (DTA) that rely on future income

BCR Ratio

- BCR ratio
  - Total QCR/ required capital
- Capital composition limit
  - For the purposes of the BCR ratio, qualifying additional capital cannot exceed 50 percent of required capital

BCR Ratio

- For G-SII volunteers
  - The reported total QCR represent 380 percent of the BCR and the core QCR are 332 percent of the BCR
- For all volunteers
  - The reported total QCR represent 427 percent of the BCR and the core QCR are 384 percent of the BCR

Source: IAIS BCR for G-SIIs, October 23, 2014

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HLA

Henry Siegel, MAAA, FSA

Background

- In July 2013, the IAIS published its assessment methodology and policy measures for G-SIIs, focusing on three main measures
  - Enhanced supervision, effective resolution, and HLA capacity
- The primary purpose of the HLA is to help reduce the probability and impact on the financial system of the distress or failure of a G-SII

HLA Timeframe

Key Date	Milestone
August 21, 2015	Public Consultation on HLA ends
Sept/Oct 2015	HLA Proposal to be finalized and approved by IAIS
Oct/Nov 2015	Expected endorsement of HLA by FSB and G20
2016-2018	Confidential reporting of HLA and BCR to IAIS Ongoing refinement of HLA and BCR
	Ongoing field testing
From January 2018	BCR and HLA requirement applied to all G-SIIs
Late 2019	ComFrame, including ICS, adopted by IAIS
Post 2019	HLA reviewed based on ICS

Source: IAIS Public Background session "Higher Loss Absorbency Capacity for Global Systemically Important Insurers (G-SIIs)," July 8, 2015

IAIS Definition of Systemic Risk

- "Systemic risk is the risk of disruption of financial services that is caused by impairment of all or parts of the financial system and has the potential for serious negative consequences for the real economy"

IAIS Position on Systemic Risk

- There is little evidence of traditional insurance either generating or amplifying systemic risk
- NT insurance and NI activities may generate or amplify systemic risk
- Differences between the insurance and banking business models need to be considered when assessing the systemic importance of insurance

IAIS Position on Systemic Risk

- The time dimension is important in insurance (both in respect of business model and regulatory action) as runs on insurers are uncommon
- The insurance sector is susceptible to systemic risk generated in (or transmitted through) other parts of the financial sector

Basic Formula for HLA

$$HLA = \text{Scale factor} * \beta x\,[(1-\gamma) * \text{Uplifted BCR} + \gamma * \text{uplifted BCR NT} + \text{NI}]$$

- Where:
  - β is the bucket factor applicable to the G-SII
    - Working assumption bucket factor is 10-20 percent
  - Describes the weight given to traditional vs. NT formulas
  - The scale factor is chosen such that the outcome for the combined HLA is the same as the full HLA formula (the formula with $\gamma = 0$)
  - NI factor is based on same approach but portion related to banks is limited to the relevant banking requirements.

Source: IAIS Public Background session

Summary of Total HLA, Uplift, and BCR

- BCR insurance and BCR NI are as specified in the approved October 2014 BCR document
- Uplift insurance: 33 percent * BCR insurance
- Uplift NTNI: 33 percent * BCR NTNI
- HLA insurance: applies percentages from choices to exposure of (BCR insurance + Uplift insurance)
- HLA NTNI: applies HLA percentages from choices to exposure of (BCR NTNI + Uplift NTNI)

Source: IAIS Public Background session

IAIS Public Background Session: Hypothetical Results

Bucket Factor	15%	15%	15%	15%	15%
Uplifted BCR	133.0	133.0	133.0	133.0	133.0
HLA – Full HLA Formula	20.0	20.0	20.0	20.0	20.0
Average weighting of NT and NI (Gamma)	0%	25%	50%	75%	100%
Traditional Req. Cap.	16.0	15.0	13.3	10.0	0.0
NT Required Capital	1.0	1.2	1.7	2.5	5.0
NI Required Capital	3.0	3.7	5.0	7.5	15.0
Total HLA Req. Cap	20.0	20.0	20.0	20.0	20.0
Traditional %	80%	75%	67%	50%	0%
NT %	5%	6%	8%	13%	25%
NI %	15%	19%	25%	38%	75%

Source: IAIS Public Background session

Academy Concerns

- Rationale for size of HLA
  - The rationale for chosen factors should be articulated and debated more fully: e.g.,
    - Bucket factor (10/15 percent used in examples)
    - Overall size of scale factor (15 percent used in examples)
- Rationale for uplift
  - Should not try to anticipate eventual changes to BCR
  - BCR is too imprecise – may generate false negatives or positives

Academy Concerns

- Use of cliff for buckets
  - Intent of the cliff is to help G-SIIs avoid increasing systemic activities
  - Penalizes too heavily for minor changes
  - Can encourage non-economic behavior
- Choice of Gamma (γ)
  - Should strongly emphasize NTNI insurance risks
  - How close to 100 percent should it be?

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ICS

Ned Tyrrell, MAAA, FCAS

Background: What Is the ICS?

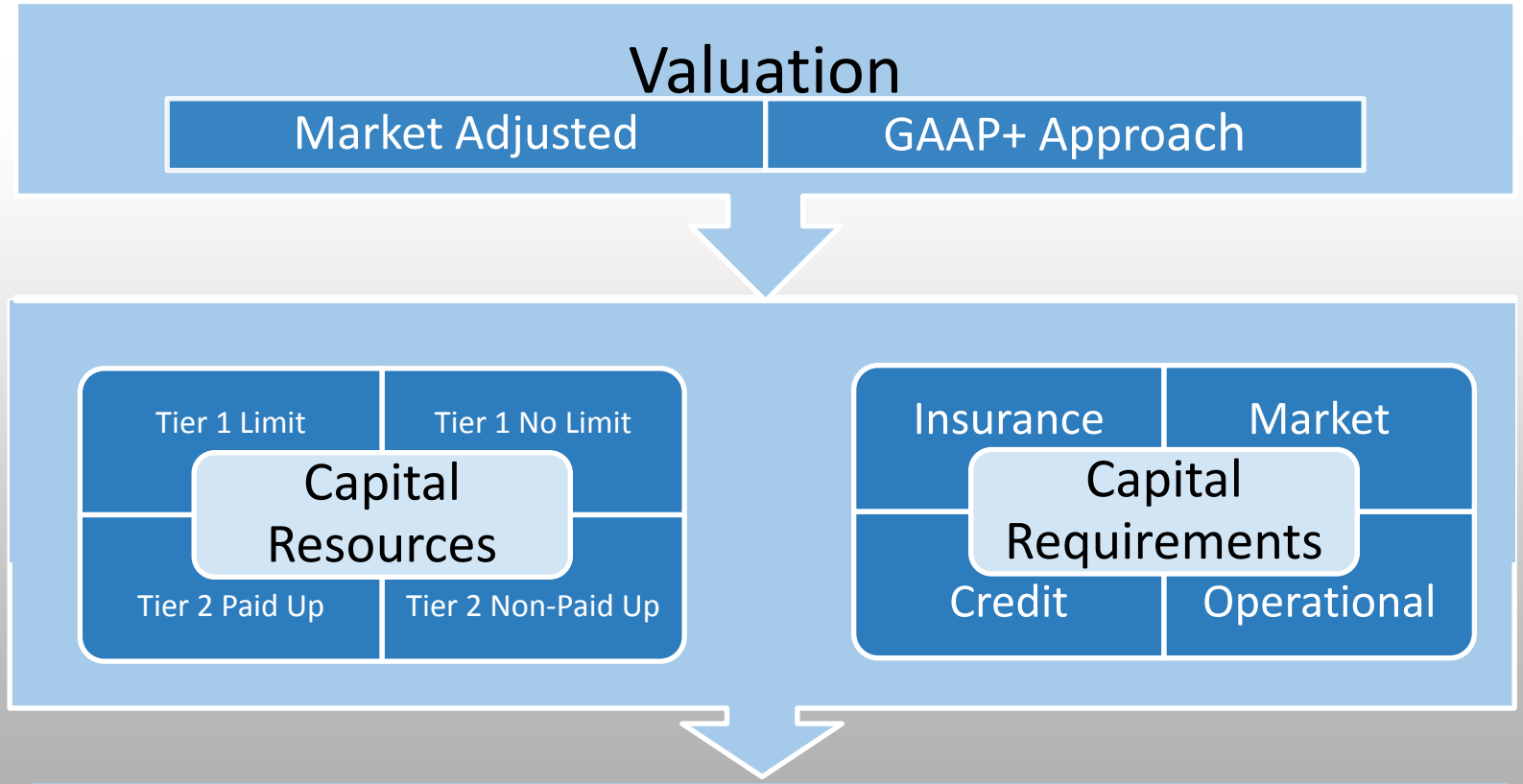
- Consolidated quantitative capital standard
  - Includes non-insurance operations of the group
  - Comparability across jurisdictions
- Establishes minimum standard
  - Supervisors may set higher standards
  - Not intended to replace or affect capital standards for underlying legal entities

Background: Ultimate Goal

- Decision
  - In February 2015, IAIS Executive Committee agreed on an ultimate goal for the ICS:

    "The ultimate goal of a single ICS will include a common methodology by which one ICS achieves **comparable, i.e. substantially the same, outcomes across jurisdictions**. Ongoing work is intended to lead to improved convergence over time on the key elements of the ICS towards the ultimate goal. Not prejudging the substance, the **key elements include valuation, capital resources and capital requirements**."

Background: How ICS Will Be Calculated



$$\frac{\text{Qualifying Capital Resources}}{\text{Capital Requirement}} = \text{ICS Ratio}$$

Source: National Association of Insurance Commissioners

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Valuation: MAV vs. GAAP+

- ICS initially conceived as market-based total balance sheet approach:
  - Market adjusted valuation
  - IAIS views: A market-based approach is more comparable, consistent and risk-sensitive than GAAP

Valuation: MAV vs. GAAP+

- Agreement reached in 2014 to explore GAAP with adjustment approach (GAAP+)
  - Simpler approach and may achieve the same ICS outcome; more reliant on audited financials
  - There is a potential desire to adjust GAAP to bring it closer to a market-based total balance sheet; GAAP also varies among jurisdictions
  - Favored by U.S. regulators and many U.S. insurers
- Field testing will explore reconciliation *between* MAV and GAAP+

Valuation: Discounting of Insurance Liabilities

- Current estimate
  - The expected present value of all relevant future cash flows that arise in fulfilling insurance obligations using unbiased, current assumptions
- IAIS favors a current estimate based on discounting cash flows using a “risk free” external rate linked to sovereign rates for discount with a spread added to reflect illiquidity premium

Valuation: Discounting of Insurance Liabilities

- Treatment of discounting in the United States:
  - Life: GAAP based its discount mechanism on companies' own portfolio; SAP employs a discount based on more conservative statutory prescribed rates
  - Non-life: Both GAAP and SAP loss reserves are generally undiscounted

Valuation: MOCE

- GAAP MOCE: Significant diversity across jurisdictions in how liabilities are calculated → diversity in amount of margin across jurisdictions
- For ICS, there is desire to develop a margin in a consistent manner
  - Two classes of methods are being considered:
    - Transfer value
    - Prudence
  - For 2015 field testing (and likely for final ICS), margins held above this "consistent" MOCE will be included in qualifying capital resources

Capital Resources: Definition

- Capital resources represent the difference between assets and liabilities
  - Provide loss absorbency on a going concern, in adverse circumstances, and during a winding-up for the purposes of policyholder protection and financial stability
- Two capital tiers are being considered:

Source: National Association of Insurance Commissioners

Capital Resources: Principles for Categorization

- Subordination
  - Extent to which and in what circumstances capital element is subordinated to rights of policyholders and non-subordinated creditors
- Availability
  - Extent to which capital element is fully paid and available to absorb loss
  - Capital can be held anywhere within the group so long as it meets the requirements to be considered a capital resource

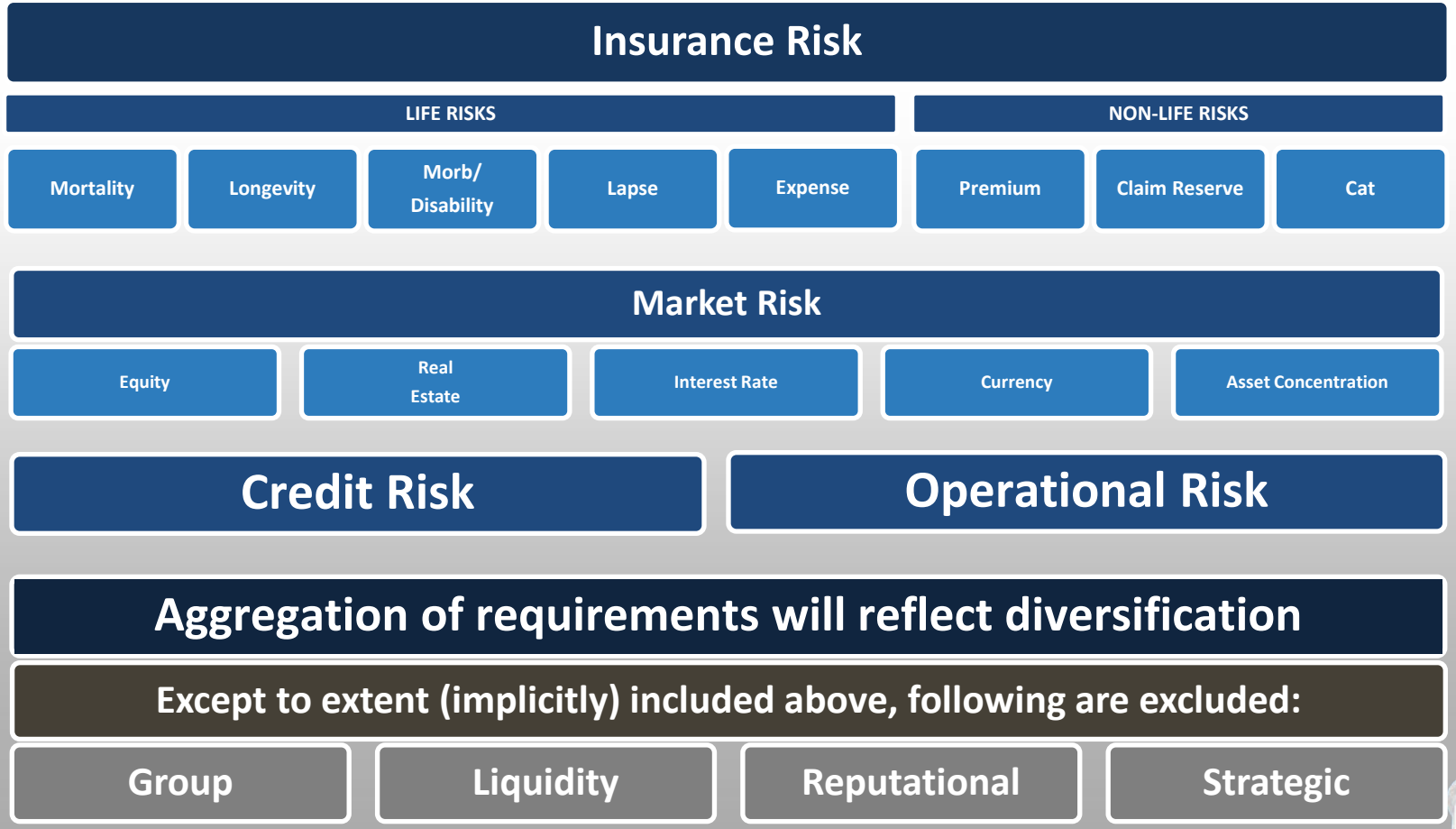
Capital Resources: Principles for Categorization

- Permanence
  - Period for which the capital element is available
- Loss-absorbing capacity
  - Extent capital element absorbs losses and in which circumstances
- Absence of encumbrances and/or mandatory servicing costs
  - Extent to which the capital element is free from mandatory payments or encumbrances

Capital Requirements

- ICS reflects all material risks
  - Transfer of risk to third party leads to reduction "commensurate with extent of risk mitigation"
  - To extent risk not quantified → addressed in ComFrame
- Key aspects of quantifying risk in ICS
  - Risk measure: 90 percent tail value at risk (TVaR) or 99.5 percent value at risk (VaR)
  - One-year time horizon
  - Prescribed, not minimum capital requirement

Capital Requirements: Covered Risks



Source: National Association of Insurance Commissioners

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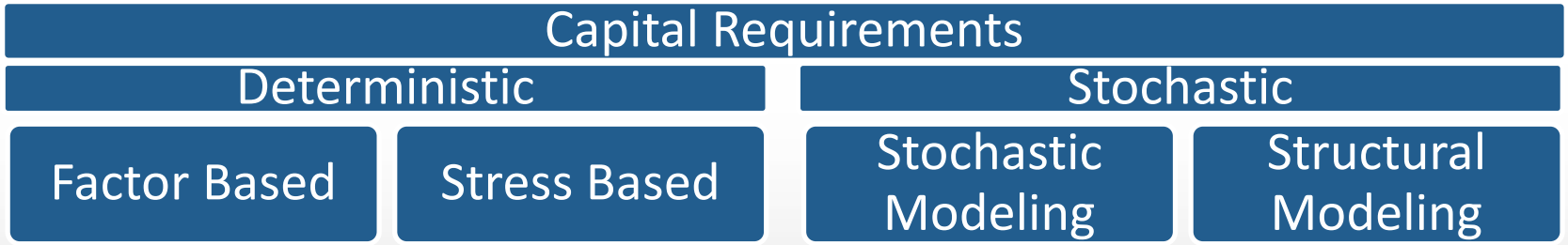
Capital Requirements: Covered Risks

- Catastrophe risk will not include only earthquake and tropical storm;
  - Will also include man-made events, a liability “cat” and exposure of life business to pandemic
- Market includes impact on both balance sheet and policyholder behavior
- Credit includes all counterparty risk
  - Examples: bonds, loans, reinsurance, derivatives, etc.

Capital Requirements: Covered Risks

- Diversification will be nested, first within risk then between risks
  - Will likely be by correlation matrix
- Credit for participating/profit sharing and adjustable products being considered

Capital Requirements: Risk Measurement



Source: National Association of Insurance Commissioners

- Two approaches relied on most:
  - **Factor Based:** Factors applied to exposure measure
  - **Stress Based:** Requirement is difference between capital on unstressed and stressed balance sheets
- There is possibility (in future) of alternatives to standard method:
  - Alternative factors, internal models, etc.

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Capital Requirements: Standard Method vs. NAIC RBC

Risk	ICS	RBC (Life)	RBC (P&C)
Mortality	Stress	Factor	--
Longevity	Stress	Factor	--
Morbidity / Disability	Stress	Factor	--
Lapse	Stress	Factor	--
Expense	Stress	Factor	--
Premium	Factor	--	Factor
Claims reserves	Factor	--	Factor
Catastrophe	Model	--	Model(1)
Interest Rate	Stress	Factor(2)	--
Equity	Stress	Factor(3)	Factor
Real Estate	Stress	Factor(3)	Factor
Currency	Stress	--	--
Asset concentration	Factor	Factor(3)	Factor
Credit	Factor	Factor(3)	Factor
Operational	Factor	Factor(4)	Factor(4)

- Comparison of ICS to NAIC Risk Based Capital (RBC)
  - (1) Currently not reflected but testing a model approach
  - (2) Model used for fixed annuities
  - (3) Model used for variable annuities with guarantees
  - (4) Reflected implicitly in other charges with more explicit charge under development

Source: National Association of Insurance Commissioners

Additional Resources

- IAIS BCR for G-SIIs, October 23, 2014
- IAIS HLA consultation document, June 25, 2015
- IAIS Risk-based Global ICS consultation document, December 17, 2014
- Academy *Essential Elements*: Insurance Capital Standards
- Academy Capital Forum Webinar: International Insurance Regulation 101: IAIS

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Questions?