

# Update on IAA and Academy Insurance Accounting, Regulation, Enterprise and Financial Risk Activities

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Webinar

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# Topics Covered

- Insurance accounting issues including insurance contracts, financial instruments, and revenue recognition
- International Standards of Actuarial Practice (ISAPs) and International Actuarial Notes (IANs) for insurance accounting
- Enterprise and financial risk (EFR) activities
- Recommending and developing model standards for capital – ComFrame, basic and international capital requirements (BCR and ICS), and high loss absorbency (HLA) initiatives
- Purple Book – a resource for insurance regulators and interested parties
- Other relevant international organizations' work



# Division of Topics

- Welcome (Tom)
- The International Actuarial Association (IAA) (Tom)
- The International Association of Insurance Supervisors (IAIS) (Tom)
- IAA/IAIS MOU (Tom)
- The Academy (William)
- IAA accounting initiatives (William)
- IAA EFR initiatives (Tom)
- IAA insurance regulation (Dave)
- Other international organizations (William)
- Questions and answers (all)



# Speaker #1 Tom Herget

- Former chair of Academy's Risk Management and Financial Reporting Council Solvency Committee
- Current Academy representative to IAA's Solvency Subcommittee
- Former Academy and current SOA Board member



# Speaker #2 William Hines

- Vice President of the Academy's Risk Management & Financial Reporting Council (RMFRC)
- Vice-chair of the IAA's Insurance Accounting Committee
- Co-chair of the IAA's Education & Practice Subcommittee



# Speaker #3 Dave Sandberg

- Chair of IAA's Insurance Regulation Committee and member of the IAA Executive Committee and its Enterprise and Financial Risks Committee
- Former Academy President, former vice president of Life Practice Council, and former chair of Academy's Solvency Committee



# The IAA

- Its vision:

- *The actuarial profession is recognized worldwide as a major player in the decision-making process within the financial services industry, in the area of social protection and in the management of risk, contributing to the well-being of society as a whole.*

- It's mission:

- *Represent the actuarial profession and promote its role, reputation and recognition in the international domain; and*
- *Promote professionalism, develop [model] standards, and encourage research, with the active involvement of its member associations and sections, in order to address changing needs.*



# The IAA

## ■ Structure

- 65 full member associations
- Ottawa-based
- 16 standing committees, including
  - Insurance Accounting
  - Enterprise & Financial Risk
  - Insurance Regulation
- Meets twice a year
  - 2013 – the Hague and Singapore
  - 2014 – Washington, DC and London





# The IAIS

- Represents insurance supervisors globally
- Mission - *to promote effective and globally consistent regulation and supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders; and to contribute to global financial stability*
- 200 jurisdictions in 140 countries
- Works with the G-20's Financial Security Board
- Member of Joint Forum along with supervisors for banks (BCBS) and for stock markets (IOSCO)
- Roughly a meeting a week, anywhere across the globe
- Revenues of \$7 million (50 percent from members, 35 percent from observers, 15 percent from conference fees) – plus contributed resources from members



# IAIS / IAA MOU

- Signed 2012; to be reviewed in 2015
- To closely coordinate areas in which joint interests are identified
- To agree upon actions and initiatives (e.g., meetings, sharing of information, task forces) to enhance respective impact on issues and topics
- Common areas of interest include:
  - Solvency frameworks and methodologies
  - Financial stability issues
  - Supervision of internationally active insurance groups
  - Macroprudential surveillance and stress testing
  - Reinsurance
  - Accounting
  - Risk management and corporate governance
  - Education and implementation of IAIS principles and standards
  - Training of actuaries, especially in emerging markets



# The Academy & the IAA

- Delegates to each IAA committee, subcommittee, and task force
- Several Academy officers or other leadership in IAA leadership positions
- Coordinate communication between delegates of the U.S.-based actuarial organizations
- IAA Council and Committee meetings
- Participate in drafting IAA comments and projects



# IAA Initiative - Accounting

- International Accounting Standards Board (IASB) sets accounting standards used in 100+ countries
- IAA has been actively working with IASB for 10+ yrs.
- Significant IASB projects IAA has commented on:
  - Insurance contracts
  - Financial instruments
  - Revenue recognition
  - Employee benefits



# IASB Insurance Accounting

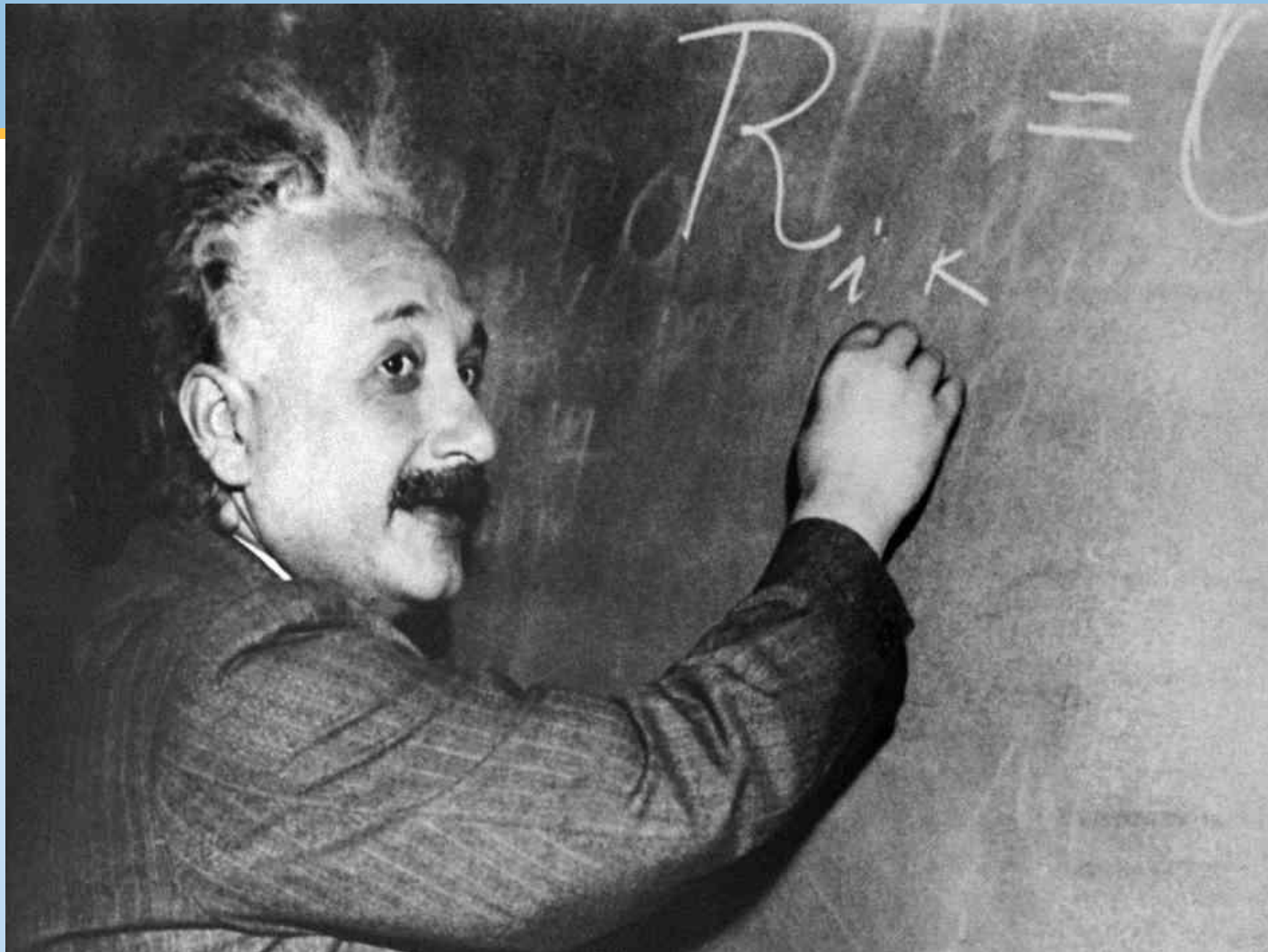
- IAA interaction with IASB
  - Member of IASB Insurance Working Group
  - Research projects and education sessions for IASB
  - Meetings with staff and board members
- Model ISAPs
- IANs
- Educational monographs
  - Stochastic modeling
  - Discount rates



# IAA Initiative – Enterprise and Financial Risk

- Deriving value from the ORSA
  - Board perspective report
  - Provide the value of ORSA, especially to the non-insurance director
  - Report about 10 pages, expected to be ready this year
- SOI on IAN for ERM
  - IAN will be educational; not intended to be prescriptive or convey information in a definitive or authoritative manner
  - Timeframe for completion is 12 to 20 months; expected to be about 50 pages
  - SOI approved in April 2014
- ERM knowledge-based project
  - Establish a highly visible and well-used online resource for ERM source material
  - Two phases:
    - Scope – how broad? Insurance or beyond?
    - Implementation – located on IAA servers; need volunteers to catalogue references
    - Likely completed in 12-15 months





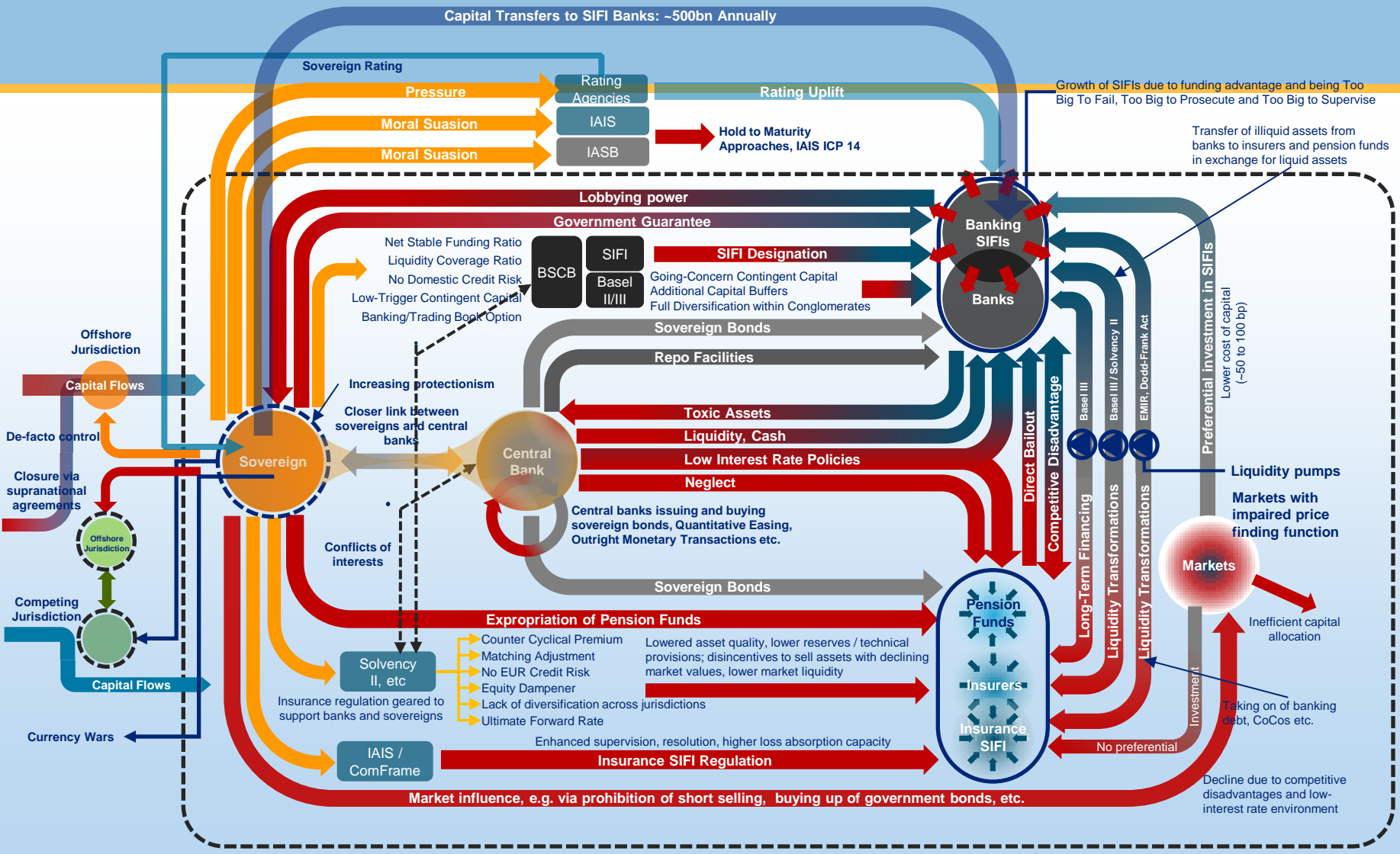
# Raison d'être of Insurance

- A sustainable pooling of insurance risks.
- Means all stakeholders need to understand and see the value they obtain by staying in whether they are shareholders, policyholders, or the public
- Actuaries are trained and skilled in being the long-term shepherds of closed pools





# The Financial Market Today



Source: Phillip Keller

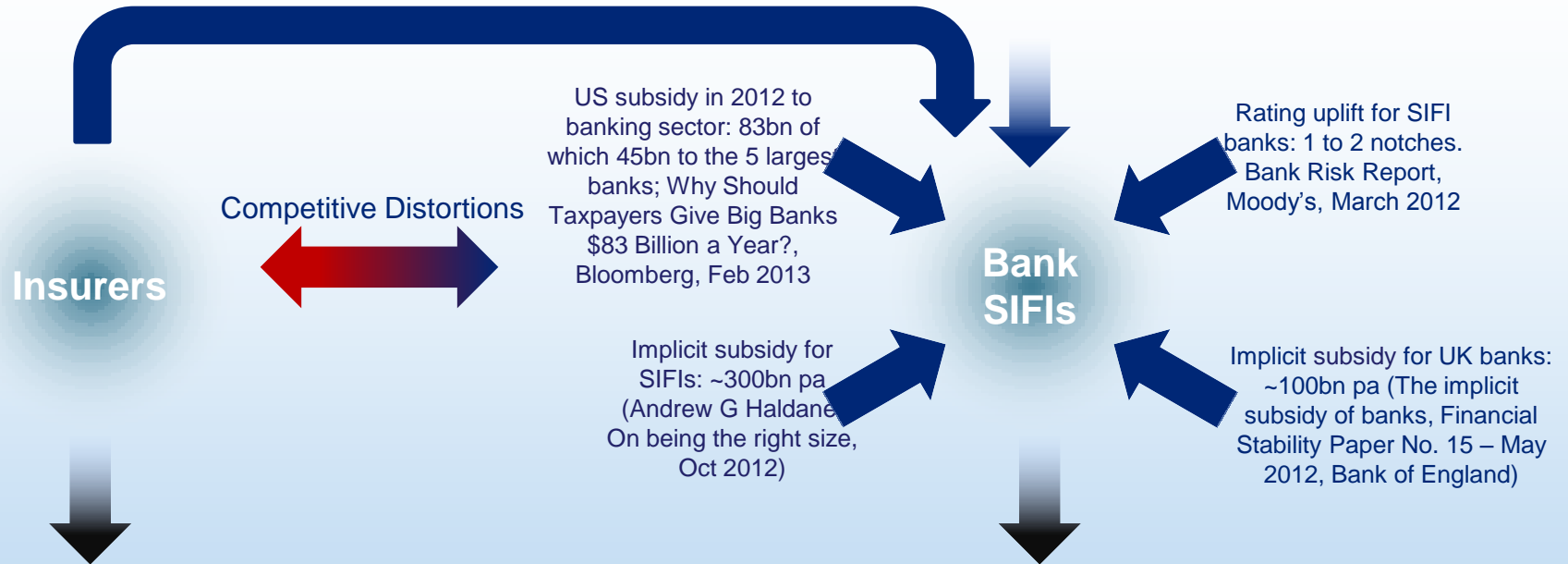
Protectionist measures: Capital flow restrictions, trade barriers, hurdles for foreign investment, etc.



# Banks and Insurers

Cost for insurers of low-interest rate policies:  
~500bn pa, Swiss Re Sigma study, 2011

Funding cost advantage of SIFIs ~80bp, Quantifying Structural  
Subsidy Values for Systemically Important Financial Institutions,  
Kenichi Ueda and Beatrice Weder di Mauro, IMF May 2012



## ?Growing? risk appetite to:

- Compete against SIFI banks
- Restore balance sheets that are eroded by the low interest rate policies

## ?Growing? risk appetite to:

- Profit from government guarantee
- To grow and pay back bailout
- Increase systemic risks
- To stay too big to fail and too big to prosecute



# About Actuaries

Have a detailed understanding of risks pertaining to economic, financial, demographic and insurance exposures in order to:

- Develop and use statistical and financial models to inform financial decisions.
- Price, set reserves and capital requirements for uncertain future events.

Intriguing difference in professional (and self-imposed) remit and mission.

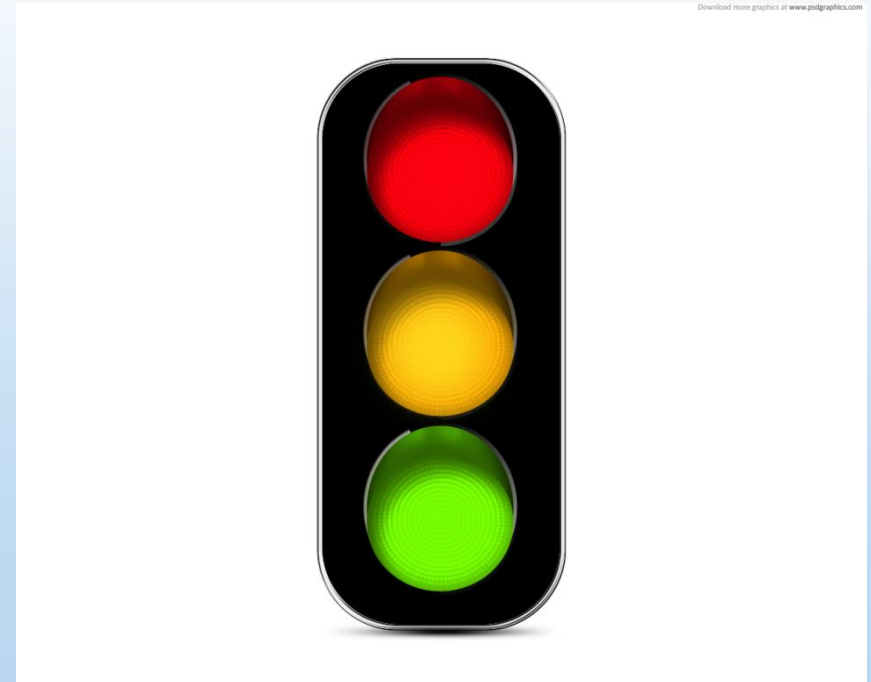
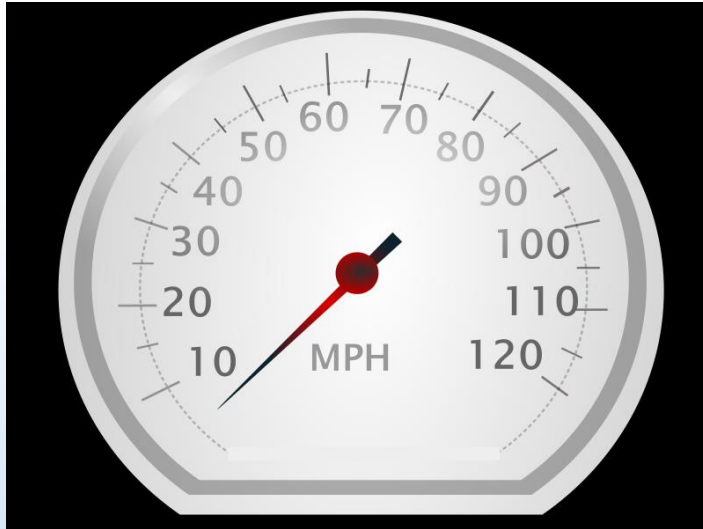
- Sustainability of a risk pool composed of diverse stakeholders with competing interests.
- Each stakeholder needs an initial and ongoing understanding of how they benefit from this pooling of interests.

In other words, technical and professional role of actuary strives to be how to make the “pie” bigger and/or last longer.

- As opposed to maximizing individual pieces of the pie.



# KEY = RISK DASHBOARDS LINKED TO ACTIONS/TOOLS



# Current IAIS Projects using IAA Resources

- International capital standards – technical advice and review of key concepts of BCR, HLA, and ICS projects of the IAIS (2014-2016)
- Microinsurance – will discuss the IAA work on facilitating actuarial resources with the IAIS Financial Inclusion Subcommittee in Quebec City and Amsterdam
- IAA committee formed in early 2014 is working on SOI for ISAP on central estimates reported under IAIS requirements



# Purple Book

- Content = Actuarial methods to support the improved management of financial and insurance risks and developing regulatory requirements
  - Regulatory/supervisory toolkit (contrast and compare for both banks and insurers)
  - Quantification of catastrophic risk
  - Issues unique to group and reinsurance
  - Operations risk
  - Model validation
  - Stress testing
  - Value of professional actuarial standards



# Past IAA Work of Interest

- *Stochastic Modeling – Theory and Reality from an Actuarial Perspective*
- *A Global Framework for Insurer Solvency Assessment*
- *Stress Testing and Scenario Analysis* (July 2013)
- *Actuarial Viewpoints on and Roles in Systemic Risk Regulation in Insurance Markets* (May 2013)
- *Note on the use of Internal Models for Risk and Capital Management Purposes by Insurers* (November 2010)
- *Financial stability, systemic risk, and macroprudential supervision: an actuarial perspective* (presentation – February 2010)
- *The Principles of Professionalism* (January 2012)
- The *Role of the Actuary* and *Value Proposition* papers (June 2013)



# Current Challenges/Questions

- Do actuaries just produce numbers, or can/should we provide a context for managing what is not known?
- How do actuaries communicate uncertainty?
- Can actuaries use more formalized stress testing to manage Black Swans and what is not known?
- Do actuaries have tools that can track risk, like debits and credits track cash so it can't "disappear"?





# Banks and Insurers – Key Business Model Differences

- Capital markets
- Cash flow – in versus out
- Value generating risk expertise
- Liquidity is both a macro banking event and a micro insurance event
- Banking relies on leverage for business model to work; means much more unstable



# Banks and Insurers – Key Business Model Differences (cont.)

- Time horizon is days versus years; banks need quick resolution
- Banks need to be interconnected; ring fencing like insurers do would break the business model
- What is impact on business model if all equity is lost?
- What are their non-market sources of capital?



# Catastrophe Risk



**Natural**

**Man made**



**Biometric**



# Background on Cat Risk

- Accidental/sudden
- Low-frequency/high-severity nature
- Impact on profits and losses/balance sheet (and solvency)
- Why catastrophic risk assessment is not susceptible to traditional actuarial methods
- What complementary competencies are needed/interdisciplinary approach



# Insurance Structural Issues

## ■ Groups

- Implications of capital being managed at group level versus legal entity
  - Fungibility of capital
  - Impact of reputational risk across groups

## ■ Reinsurance

- Intra-group
- Non-proportional
  - Diversification versus concentration risk
    - Value for and impact on ceding and assuming entities



# Operational Risk

- Operational risk includes the direct or indirect losses caused by the inadequacy or malfunction of procedures, human resources and inner systems, or by external events. Basically, they are all losses due to human errors, technical, or procedural problems or other causes not linked to the behavior of financial operators or market events
- Operational risk in the context of other risks
  - Market risk, insurance risk (specifically pricing and reserving)
  - Excludes strategic, business, and reputational risk
  - Residual risk of what is not already covered in the other risks; challenge of not double counting



# Operational Risk Differs

## ■ Differences

### ■ Operational risk for banks:

- Focus on system breakdown and fraud
- Leads to «accidental interruption» (e.g., money transfer and payment systems stop → potentially disastrous for bank and financial system almost instantaneously)

### ■ Operational risk for insurers:

- Not as sudden and accidental; gradual impact on financial system
- More time for remedial action



# What is the Challenge/Question for the Future of Models?

- How to regulate something that is “always wrong”?
- Or, is it the process and/or methodology that is wrong?





# How to “Mind the Gap”

- Documentation
  - Key assumptions
  - Simplifications
  - Controls (more later)
  - Limits of the model
- Sensitivity of output to changes in parameters
  - Gives an estimate of the uncertainty within the model



# Use of Controls

- **Controlled approval for model changes**
  - Documentation of model and reasons for change
  - “Locked down” IT controlled production models
  - Formal governance to approve changes to methods and assumptions
  - Exception escalation process
- **Audit**
  - Periodic internal audit
  - External audit (IFRS, GAAP, Statutory, MCEV)
- **Continuous improvement via “bread crumbs”**
  - Always document why changes were made



# Minding the Gap (cont.)

- Calibration of assumptions/parameters
  - Understand that “real world” means average the past
  - “Market consistent” means average all of the information at a single point in time
  - Is there a committee of sorts that documents and reviews the basis for assumptions via a controlled process?
  
- Validation of output
  - Use of actual to expected
  - Risk management independent tracking of hedging results
  - Projected policyholder behavior to actually observed
  - Build an independent model
  - Use of the three-pillar approach (more later)



# Three-Pillar “Line of Defense”

- Users build the models
- Independent reviewers sign off on models
- Use of internal and external audit to validate reviewers



# Different Approach to Control Process

- Builder uses control process and gap analysis to *own* its validity
- Reviewers confirm operational and ERM controls
- Who owns the model in a three-pillar defense?



# ISAP(s) on IAIS Proposed BCR & ICA Projects

- IAA Council voting on moving these from the consideration list to the action plan
- With respect to the BCR – ISAP [7] to deal with “current estimate liabilities” (expected values, without margins)
- With respect to the ICS – possible role of a model ISAP in several components
- Task force created by IAA Actuarial Standards Committee – first meeting in March – beginning work on draft SOI
- Parallel work by the IAA Insurance Regulation Committee



# IAA Due Process is Such That...

## Users and end-users of actuarial services:

Have confidence that the due process ensures the quality and suitability of ISAPs

Understand and value the processes by which their views can be made known and will be responded to



## IAA Full Member Associations, standard-setters, other interested parties:

Recognise the value of Model ISAPs

Are fully engaged where appropriate in the development process



## Actuaries:

Have confidence that ISAPs have been prepared by competent people who understand actuarial work and the commercial and professional framework in which they will be applied



# Criteria for Topics to be Considered for Model ISAPs

- Will the topics serve the public interest?
- Are they in a recognized or emerging area of actuarial practice?
- Will a sufficient number of full member associations and/or standard setters find the ISAP useful?
- Is the work involved in producing the ISAP justified?





# Other International Organizations

- International Valuation Standards Council (IVSC)
  - Generally focus on assets
  - Current project on liabilities
  - Want to develop valuation profession
- International Auditing and Assurance Standards Board (IAASB)
  - Set international auditing standards
  - IAA member of Consultative Advisory Group



# Question and Answer

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- Dave Sandberg [Dave.Sandberg@AllianzLife.com](mailto:Dave.Sandberg@AllianzLife.com)

