

SOUTH AFRICAN
BANKING EXAM:
*THE FIRST ACTUARIAL
PROFESSIONAL EXAM IN
BANKING*



QUANTIFYING RISK, ENABLING OPPORTUNITY

**Presentation for
Education Committee,
Budapest Meetings
Andrew Gladwin**

This presentation will focus on-

- Why the actuarial skillset and traditional actuarial toolkit are very suitable for banking
- The process used in developing the South African exam, and how it fits into our qualification structure

An actuary's skill-set

QUANTITATIVE



STATISTICAL & FINANCIAL MODELLING



DECISION MAKING



BUSINESS ANALYTICS



ECONOMICS



RISK MANAGEMENT



STAKEHOLDER MANAGEMENT



COMMUNICATION



PROFESSIONALISM



The need for actuaries in banking

Stress Testing

Credit Scorecard Development

Credit Risk Modelling

Credit Risk Management & Reporting

Pricing of all Banking Products
(credit & non-credit related)

Provisioning & Model Development

Balance Sheet Management

Capital Modelling

Pricing & Trading of Derivative Products

IFRS 9: Expected Loss Approach

***Historical data**

***Current Data**

***Future forecasts**

Product & Business Development & Management

***Optimal Client Value Management**

Enterprise-wide Risk Management

***Operational risk**

***Market Risk**

***Interest rate risk**

***Currency risk**

***Business risk**

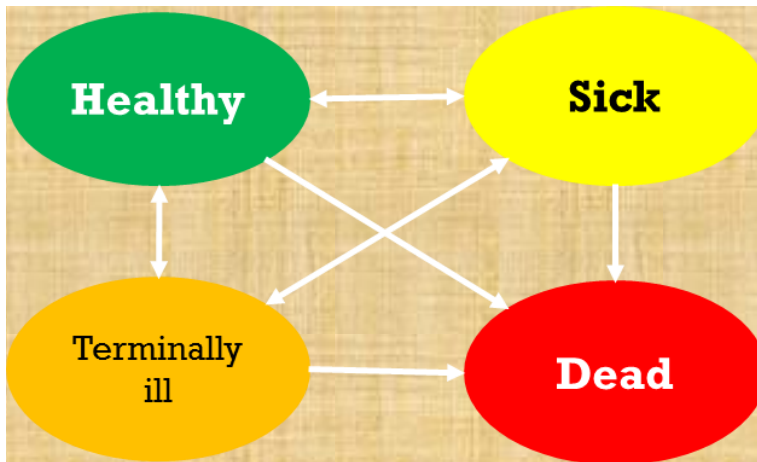
***And many other risks**

Insurers Are Most Concerned About Claims, Banks Are Most Concerned About Defaults...A Lot Of Analogies

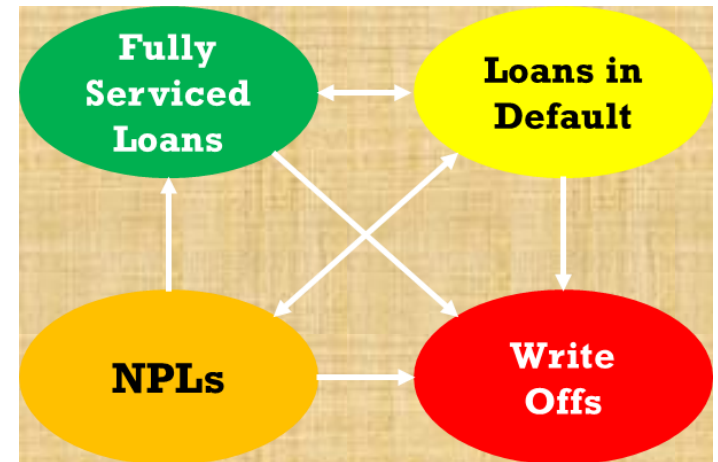
Insurance	Banking Equivalent
Probability of a Claim	Probability of Default (PD)
Sum Insured/Assured	Exposure at Default (EAD)
Loss Incurred divided by Sum Insured	Loss Given Default (LGD)

Using Standard Actuarial Models- Multistate models

LIFE ASSURANCE



BANKING



Further Analogies With Life Insurance

"I have noted an interesting point whilst participating in an IFRS 9 impairment project. The prepayments of loan products are mathematically the same as surrenders of savings products of life insurance but the cash flows go in opposite directions. Both specify the maturity of the contracts.

And the defaults of loans vs deaths of savings products are comparable even though the correlation of prepayments vs surrenders are different.

So actuaries have something to give to the modelling of bank products."

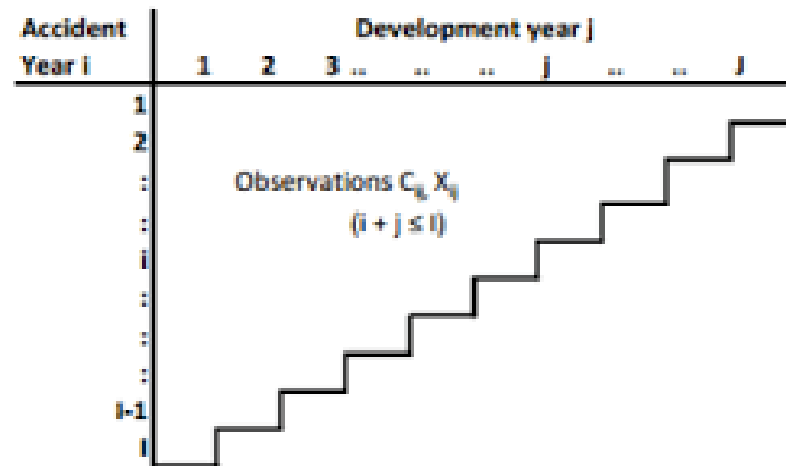
Pentti Soininen, Actuary, Solvency Expert, Finland, 22 March 2017

Insight: Application of equation of value principles from life insurance to banking!

General Insurance techniques....use of run-off triangles

Can be used to project loan recoveries after default – i becomes default year and j becomes year of recovery payment

Figure 2.3: Run-off Triangle



Establishing A Banking Subject

- Pioneers: Garth Griffin, Michael Tichareva
- Banking committee established in 2010
- Decision to establish a banking subject in 2012, commencing a rigorous process of writing and reviewing notes and tuition
- First examination in October 2015
- 31 attempts in 3 sessions to date, 6 passes
- Ongoing feedback loop in improving tuition, syllabus

How Does the Banking Subject fit into South African Qualification Structure

- South Africa has Associate (generalist, corresponding to IAA syllabus) and Fellowship (more specialist, higher-order skills)
- Set at Specialist Applications level which is highest-level exam to get Fellowship
- Focus therefore on application, judgment –providing skills for leadership roles in banks
- No specific technical banking subject- broad actuarial toolkit as in IAA syllabus plus some specific topics in ERM subject seen as appropriate technical background
- Therefore students doing Banking exam should also do our ERM subject which corresponds to the UK ST9 exam

Structure of Banking Subject

Part

- 1) Banking Structure & Banking Marketplace in South Africa
- 2) Bank Risk Management
- 3) Bank Asset & Liability Management
- 4) Bank Strategy & Governance
- 5) Bank Problem Solving

Ultimately An Application of The Control Cycle

