INTERNATIONAL ACTUARIAL ASSOCIATION

Banking Working Group

Role of Actuaries in Banking

1. Executive summary & Introduction

This report outlines the results of the work of the Banking Working Group ("BWG") of the International Actuarial Association ("IAA") on the role of Actuaries in Banking. It builds on the significant work initially performed by the Actuarial Society of South Africa ("ASSA") in 2009 in their investigations on the role of actuaries in banking prior to their establishment of a Banking Committee and recognising banking as a stand-alone Practice Area for actuaries in 2010.

ASSA in 2010 established a Banking Committee and recognised banking as a Practice area for the following reasons:

- Other practice committees did not cover banking.
- There was clear potential for significant value add by actuaries in banking
- A number of actuaries were already employed in banking with more than 150 actuarial professionals working in banking at the time
- This was consistent with ASSA's strategic focus on venturing into wider fields.

The "Banking Committee" of ASSA started as a "Banking and Finance Committee" in 2010. However, the Committee recognised that there were significant differences between the banking and finance areas and felt that the committee should simply be called the Banking Committee as the finance related matters would be better covered elsewhere. The name, therefore, changed to Banking Committee in 2016.

2. Roles of Actuaries in Banking

The roles of Actuaries in banking typically relate to risk management. This ranges from credit risk, market risk, liquidity risk, operational risk and other business risks. Each of these risks can be broken down further into a breadth of topics. For example, credit risk is a major area of work and can be broken down into loan origination and pricing strategies, monitoring of portfolio trends, provision of capital and reporting. Given actuaries' quantitative abilities and understanding of the financial world, actuaries are able to play a key role in each of these areas.
These roles are not confined to banks but to consulting firms as well. Consultants are able to act in advisory roles or audit roles. While audit roles often lead to validation of a bank's model, advisory roles allow actuaries to build up strategies and models with clients (the banks) across the breadth of risk types and topics.

Actuaries employed in the banking sector and risk-consulting field in South Africa are largely employed in the following areas:

- Credit scorecard development
- Credit risk management and reporting
- Design and pricing of all banking products (credit and non-credit related)
- Provision model development
- Balance sheet management, i.e. asset-liability mismatching risk management and liquidity risk management
- Pricing and trading of derivative products.
- Capital modeling
- Credit, operational and market risk modeling
- Balance sheet management.

The relevant skills and knowledge for these actuaries in these areas include the following:

- Quantitative and modeling skills, including asset-liability modeling
- Knowledge of nature and pricing of financial and derivative products
- Business and regulatory awareness in the banking sector

Given worldwide regulatory pressures in the banking space, actuaries, among other professionals, are sought after to build cutting edge models to optimize the risk environment and to work on the forefront of policy development.

3. Findings by the ASSA Banking Task Force in 2009

3.1. The Banking issues were found to be much wider than the issues dealt with by the closest committees, the Investment Committee and the Enterprise and Financial Risks Committee. It was found that sub-committees of these were unlikely be able to give sufficient attention to such wider issues.

3.2. Increasing numbers of actuaries were now being employed in Banking areas of credit risk modelling, economic capital management and provisioning. In particular, it was noted that the development and review of Basel II models for banks in South Africa was undertaken by actuaries.

3.3. There was seen to be a need across the industry for better regulation and closer guidance.

3.4. There was seen to be a lack of professionals with the requisite skill set to work in the economic capital management area of banking. Actuaries were seen to have the skills to be proficient in such areas as they would be able to apply principles from other actuarial practice areas such as General Insurance and Life Assurance. It was felt that the rigorous training with which actuaries are known to undergo, and the respect that they already commanded among employers potentially gave the profession a good starting point.

3.5. There is potential for having statutory roles within banks' economic capital management, as an example, for Actuaries over time if the profession positioned itself appropriately.

3.6. It was believed that equipping Actuaries with skills and support in Banking will potentially reduce the growth risks to the profession whilst also opening up new areas of work for actuaries.

3.7. Over the recent past, the actuarial profession in South Africa had lost younger members who are interested in finance to other finance related professions at university entry level and also following completion of an actuarial degree, so there was need to develop a qualification to cover the gap.

3.8. It was believed that the profession would be seen as being pro-active and the initiative was expected to help market the profession to wider fields. This was consistent with the strategic focus by the profession on exploring wider fields.

3.9. Points noted against the formation of a Banking practice area included the following:

3.9.1. Movement away from core and traditional actuarial skills

3.9.2. Lack of regulation mandating the need for actuaries

3.9.3. Large overlap of corporate banking roles with ERM

3.9.4. Actuaries were not viewed as necessarily possessing unique skills in areas such as Corporate Finance, although it was later concluded that Corporate Finance was a completely separate area that required separate attention from Banking specific functions.

4. Recommendation by the ASSA Banking Task Force in 2010

4.1. The Task Force recommended that a Banking and Finance Committee be established for the actuarial profession in South Africa. It was noted that the potential drawbacks are far outweighed by the potential benefits to the profession.

4.2. The Task Force recognized the significant differences between banking and finance and felt that it was likely that the Committee would establish sub-committees to consider each area separately. The Task Force also acknowledged that relatively few actuaries are involved in corporate finance activities at that stage. However, it is an area in which actuaries can add value and at a minimum a watching brief should be maintained.

4.3. The key motivations were that:

4.3.1. Other practice committees did not cover this specific area sufficiently.

4.3.2. It was consistent with international practice (UK and Australia) who were also talking about banking but they did not gain significant ground in progressing their initiatives.

4.3.3. There was great potential for significant value add by actuaries in banking.

4.3.4. A number of actuaries were already employed in banking.

4.3.5. It was consistent with the profession's strategic focus on venturing into wider fields and creating new areas of work for actuaries.

4.4. The Task Force recognised the following as the key responsibilities of the Banking Committee on behalf of the profession:

4.4.1. To support members of the profession working within the Banking field.
4.4.2. To develop the role of the profession within the Banking field.
4.4.3. To promote the involvement of actuaries in the Banking field.
4.4.4. To be aware of developments in the banking field.
4.4.5. To develop a view on banking/credit/finance related matters.

5. Banking education and discussion forums

ASSA introduced a banking fellowship subject in 2015. The new Banking exam places strong focus on the management of banking specific risks such as credit risk, market and interest rate risk, liquidity risk and operational risk. Balance sheet and capital management as well as corporate governance and strategy setting in the banking environment are other key focus areas of the subject. Other important issues such as banking product design and pricing are also covered. The subject focuses on application of actuarial concepts learnt in earlier or foundation and intermediate actuarial subjects to solve complex problems within banking institutions.

Other educational opportunities are provided through seminars and sessional meetings offering members the opportunity to earn CPD points. The ASSA Banking Committee currently holds at least two sessional meetings of one and half hours each and a one-day banking seminar annually.

6. International developments

There is significant interest in the Banking practice area for actuaries by members of the IAA. Individual actuaries in a number of countries are already employed in banking related roles. Currently, Australia is the only other country, in addition to South Africa, that now also formally recognises banking as a practice Area for actuaries, as opposed to simply a wider field, and the Institute of Actuaries of Australia recently approved the development of a Banking curriculum. The Canadian Institute of Actuaries has also developed strong interest and is currently investigating going the same route. The Institute and Faculty of Actuaries (UK) are also investigating.

In view of these international developments, one of the main objectives of the BWG of the IAA is to encourage and support member associations to embrace banking as a practice area for actuaries and to introduce banking curriculum for their members.

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November 2016

Annexures:

- Annexure A: Involvement of actuaries in Retail and Corporate Banking
- Annexure B: Involvement of actuaries in Financial Markets
- Annexure C: Involvement of actuarial skills in Banking
- Annexure D: ERM in Banking
- Annexes E1 & E2: South African Banking Applications Subject Syllabus
- Annexure F: International practice (UK and Australia)