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Risk-Based Supervision, Own Risk and Solvency Assessment and Risk-Based Capital in Tanzania

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he United Republic of Tanzania consists of mainland Tanzania and Zanzibar, with its capital at Dodoma and commercial capital of Dar es Salaam, on the Indian Ocean. While Zanzibar has a good deal of autonomy in a number of areas, insurance is a union matter, so the regulatory agency, the Tanzania Insurance Regulatory Authority (TIRA), has jurisdiction over all insurance companies in Tanzania.

Tanzania is a member of the East African Community (EAC), which is trying, among other things, to create a common economic space in East Africa, including the regulation and supervision of insurance activities.

The functions and duties of TIRA are "to promote and maintain an efficient, fair, safe, and stable insurance market for the benefit and protection of policy holders," notably to

- Coordinate and implement policies on insurance matters;
- Regulate and coordinate activities of insurers, brokers and
- Specify the code of conduct for members of the insurance industry;
- Effect supervision and monitoring of insurers, brokers and agents;
- Formulate standards in the conduct of the business of insurance that shall be observed by insurers, brokers and agents; and
- Ensure proper observance of the code of ethics and practice by insurers, brokers and agents.



To date there are a total of 31 insurance companies (including one reinsurance company) licensed to transact insurance business in Tanzania. These companies are supported by insurance intermediaries consisting of 132 insurance brokers, about 539 insurance agents, and 45 loss assessors and adjusters.

Since establishment of the insurance regulatory regime in the country in 1996, supervision has been largely on a compliance basis. In order to bring regulation and supervision of the insurance industry in Tanzania toward a more modern and effective basis, I was engaged to help to implement risk-based capital, risk-based solvency, stress testing, and Own Risk and Solvency Assessment (ORSA) for Tanzanian insurers, and to provide assistance to TIRA to bring them up to speed regarding riskbased supervision. The project is funded by the International Development Agency, part of the World Bank group.

Currently, the Insurance Act and Regulations are based on what I would call "Solvency 0." The market is dominated by property and casualty (P&C) companies, transacting mostly motor business. Reserves are not calculated on an actuarial basis, and although there is provision for reserves to be calculated properly, the vast majority of companies use the statutory basis of unearned premium plus a prescribed percentage of premium for incurred but not reported. Life insurance reserves need to be calculated on an actuarial basis and certified by an actuary. Capital is a simple percentage of reserves, one for life and a higher percentage for P&C business. There are no qualified

actuaries, although the University of Dar es Salaam offers actuarial courses. A number of graduates with B.Sc. or M.Sc. in actuarial science are taking actuarial exams, mostly the Institute and Faculty exams or the Certified Actuarial Analyst, but it will be some years before fully qualified Tanzanian actuaries become available. Much actuarial work is therefore done outside the country, in Kenya or South Africa or even farther afield.

The challenge then is to bring both the insurance industry and the regulator into a new era of best practices. The project consists of baselining the current practices; assessing international best practice for ORSA, stress testing and risk-based capital; assessing the readiness of the industry to adopt more advanced processes and the actuarial capacity of both the insurers and TIRA itself; providing a model of ORSA, stress testing, risk based capital and other areas, such as actuarial valuation for both life and P&C reserves and risk-based supervision; and finally providing input into proposed changes to the Act, Regulations and draft Guidelines to concretize the proposals. During the project, training for TIRA personnel, as well as a series of stakeholder consultations, are being held to ensure buy-in for what will be a fairly complex process for all concerned.

Current practice, readiness to implement more advanced procedures and actuarial capacity were assessed by a series of in-depth interviews with TIRA staff; a review of their inspection guide and sample inspection reports and similarly in-depth interviews with a selection of life and P&C companies, both domestic and those that are subsidiaries of international companies; and finally a short questionnaire was distributed to all companies to gauge the extent to which ORSA and enterprise risk management (ERM) are being applied and actuarial resources available.

A review of international practice started off by looking at resources available from international actuarial and insurance bodies, principally the International Actuarial Association (IAA) and the International Association of Insurance Supervisors (IAIS). The IAA is working on a number of standards, and of particular interest is their Risk Book, which is still in development, but provides extensive material on best practices for ORSA, stress testing (in draft) and capital. This was an invaluable resource. The IAIS has established 26 Insurance Core Principles, a number of which speak to these issues and again represent international best practice in relation to insurance supervision and expectations of companies relating to compliance with these norms. The IAIS is also working on International Capital Standards, which technically apply to globally active insurers, but even local insurers would benefit by using these principles, suitably modified, in relation to their measurement and use of capital. IFRS 17 also provides some guidance, and while not strictly a supervisory document, does provide standards for valuation and to some extent internal targets for capital that are consonant with other sources.

Finally, implementation of ORSA, stress testing and risk-based capital in a number of select jurisdictions, one in the EAC, another developing country in Africa and finally Canada, bearing in mind that Canada's implementation of these areas is viewed in an aspirational manner only. I was also able to use knowledge gained from working on risk-based capital, risk-based



Fisherman boats in front of Kivukoni fish market with Port control tower and Skyscrapers Behind, Dar Es Salaam, Tanzania

supervision and other areas in previous assignments in Africa, Asia and the Caribbean.

Insofar as development of actuarial expertise in Tanzania is concerned, we are relying heavily on Actuaries Without Borders (AWB) to provide courses to aspiring actuaries and to provide mentoring for them. Eventually we expect AWB to assist in getting the Actuarial Society of Tanzania, which is an associate member of the IAA, to become a full member, although this is a project for the future.

It is hoped that the process will provide companies with a better understanding of their own business and eliminate or at least reduce some of the systemic failings often seen in developing country insurance industries, such as the motor vehicle price war, the poor reputation of insurance companies and low insurance penetration.

ORSA and stress testing are processes rather than specific standards, so companies will be able to implement them, albeit in a simplified form. In many jurisdictions, a "Financial Condition Report" or similarly named document is required from insurance companies. In my view this is a misnomer as 75 percent of the report is qualitative rather than quantitative, so forms a very good basis for an ORSA report. Companies will be encouraged to follow the format of this report, but in order to ensure that it is not excessively burdensome and does not form another "compliance" questionnaire, TIRA would need to accept such reports in a variety of formats to varying degrees of detail. It should be mostly forward-looking and so should not be overburdened with financial tables, ratios, etc.

Stress testing will form part of ORSA, both for companies that are in satisfactory financial shape—to indicate how much capital is needed in various shock situations—but even more invaluable for companies in an impaired situation, to indicate the most promising pathways back to full financial health.

Insofar as risk-based capital is concerned, a rather formulaic approach (one I've dubbed "Solvency 1.5") will be adopted. This will use a ratio of actual capital to required capital, where required capital is found by taking various percentages of assets, premiums, reserves and other aggregates to assess asset and liability side risk, mismatch risk, operational risk and so on. To the extent possible, modelling will be avoided at this time, although at some point in the future a more model-based approach might be able to be employed; but this is beyond the capacity of most of the industry and TIRA at the moment. Some elements, such as the Maximum Event Retention for P&C, or guarantees and options for life insurance might need to be modelled, either with the reinsurance brokers' or parent company's assistance, since neither of these can be reduced to a simple percentage. It will be interesting to see how this plays out.

As far as risk-based supervision is concerned, a Supervisory Attention Index has been designed, combining both probability of failure and impact, using both qualitative and quantitative measures. This will help TIRA to identify companies at risk and to organize their inspection schedule on a more risk-based approach. On-site inspection will change from a financial audit (which is what the auditor does) to a verification of the off-site analysis, an opportunity to meet the key players, including board and management representatives, internal and external auditors, and actuaries and actuarial advisers. Inspection reports will be short, to the point and indicate failures, if any, and agreed remedial actions, rather than the current recitation of financial statistics.

The outcome for TIRA should be a more focused and risk-based approach to supervision, quicker identification of potential problems and less attention to well-run companies with adequate capital buffers. The impact on the industry is harder to gauge. It is hoped that the process will provide companies with a better understanding of their own business and eliminate or at least reduce some of the systemic failings often seen in developing country insurance industries, such as the motor vehicle price war, the poor reputation of insurance companies and low insurance penetration. On its own a more rational regulatory and supervisory system cannot fix all these ills, but it is a necessary condition to ensure a healthier insurance industry, greater confidence of the public, and eventually levels of insurance penetration and an appreciation of the benefits of insurance we see in more developed markets.



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