Risk-Based Capital Regimes in Emerging Markets

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Speakers

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Risk-Based Capital Regimes in Emerging Markets | Presentations

- Risk-Based Approaches to Capital | Craig Thorburn, Lead Financial Sector Specialist, World Bank

- Capital adequacy frameworks in emerging markets| Eamon Kelly, Consulting Actuary (FIAA, FSAI)

- Kenya Case Study| Elias Omondi, Actuary, Insurance Regulatory Authority of Kenya

Why risk-based approaches to capital?

- For development
  - Compliance based rules constrain innovation, limit investment in technical skill development, and create a regime where blaming the rules is the default excuse for poor performance.
  - More risk-based approaches encourage insurance market development providing flexibility, encouraging technical skills, and incentivizing management to find solutions to challenges by adjusting their business operations.
- For efficiency
  - More risk-based approaches use less of a “one size fits all” approach with hidden dormant capital adding cost.
- For effective supervision
  - A more risk-based approach facilitates fair comparisons between insurers and over time, supporting risk-based ratings structures and proportionate intervention ladders.

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Types of risk-based capital rules

Flat Nominal	Index-based "greater of"	Index-based additive	Combinatorial	Model based

Less ← Risk Sensitive → More

A fixed amount of local currency set out in the law. Now quite rare but some still exist.	A factor applied to premium, a factor applied to claims, etc. Required capital is the greater of one or the other. Kenny Rules Solvency I	More factors applied to premiums, claims, and usually asset side balance sheet items as well. Required capital is the sum of the results.	Risks measured and capital allocated on a risk-by-risk basis. Required capital is a statistical combination plus allowance for diversification / correlation, with a "square-root".	Customized to each insurer through data-based models reflect insurers' business. Leverages risk management of sophisticated insurers' internal models.

Less ← technical management and supervisory skills, data needs, risk-based approach, granularity, cost, sophistication → More

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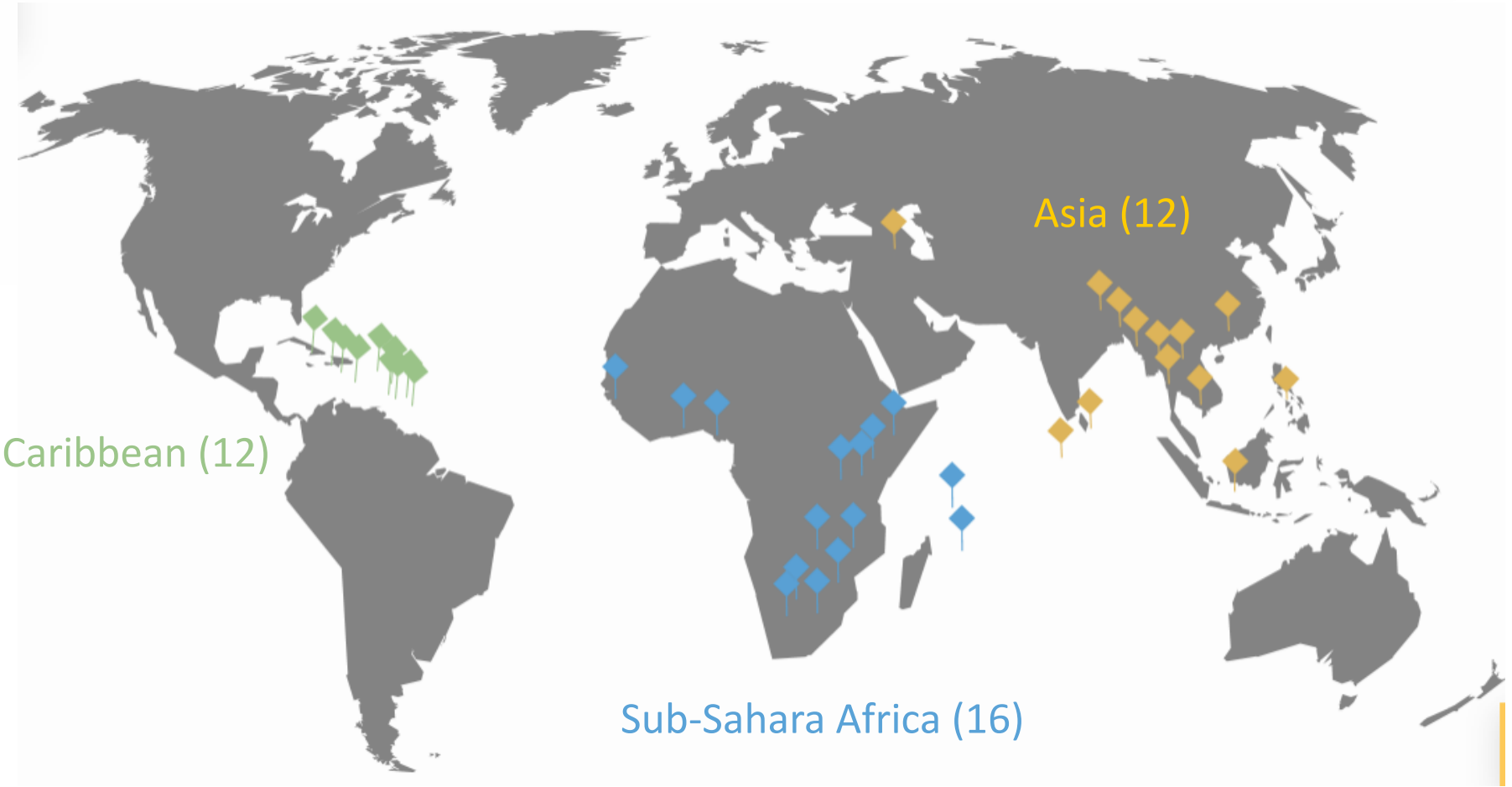
Capital adequacy frameworks in emerging markets



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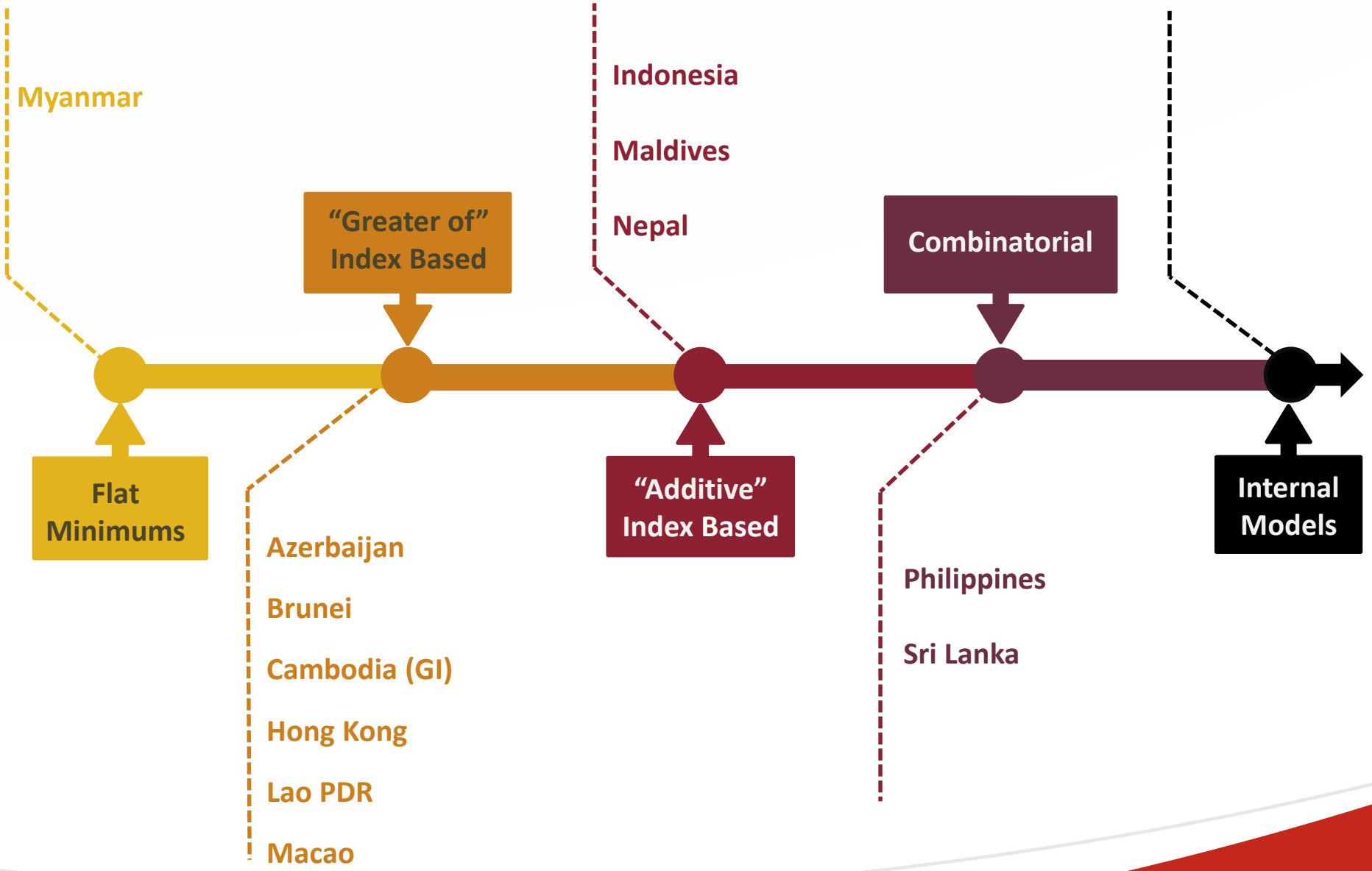
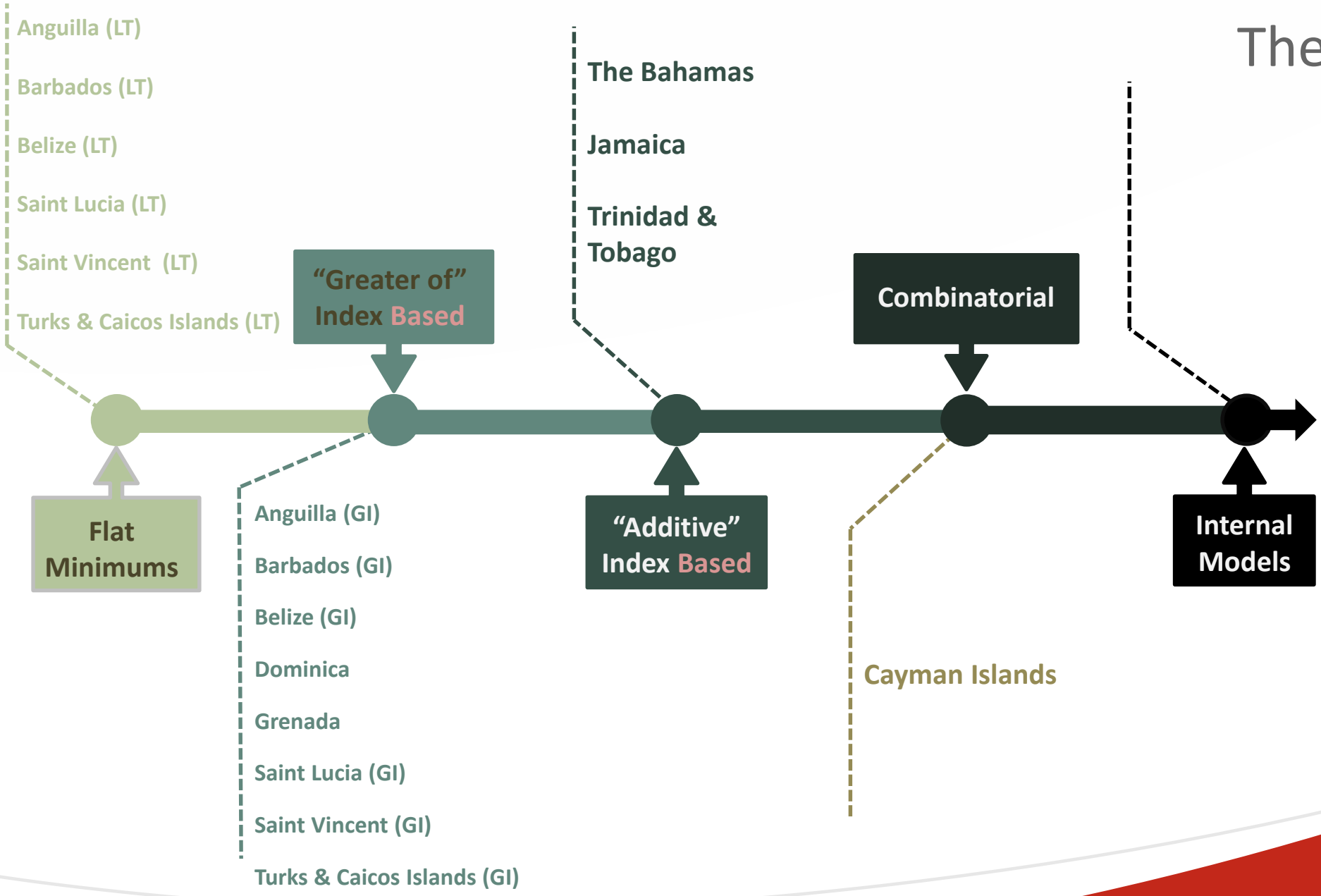
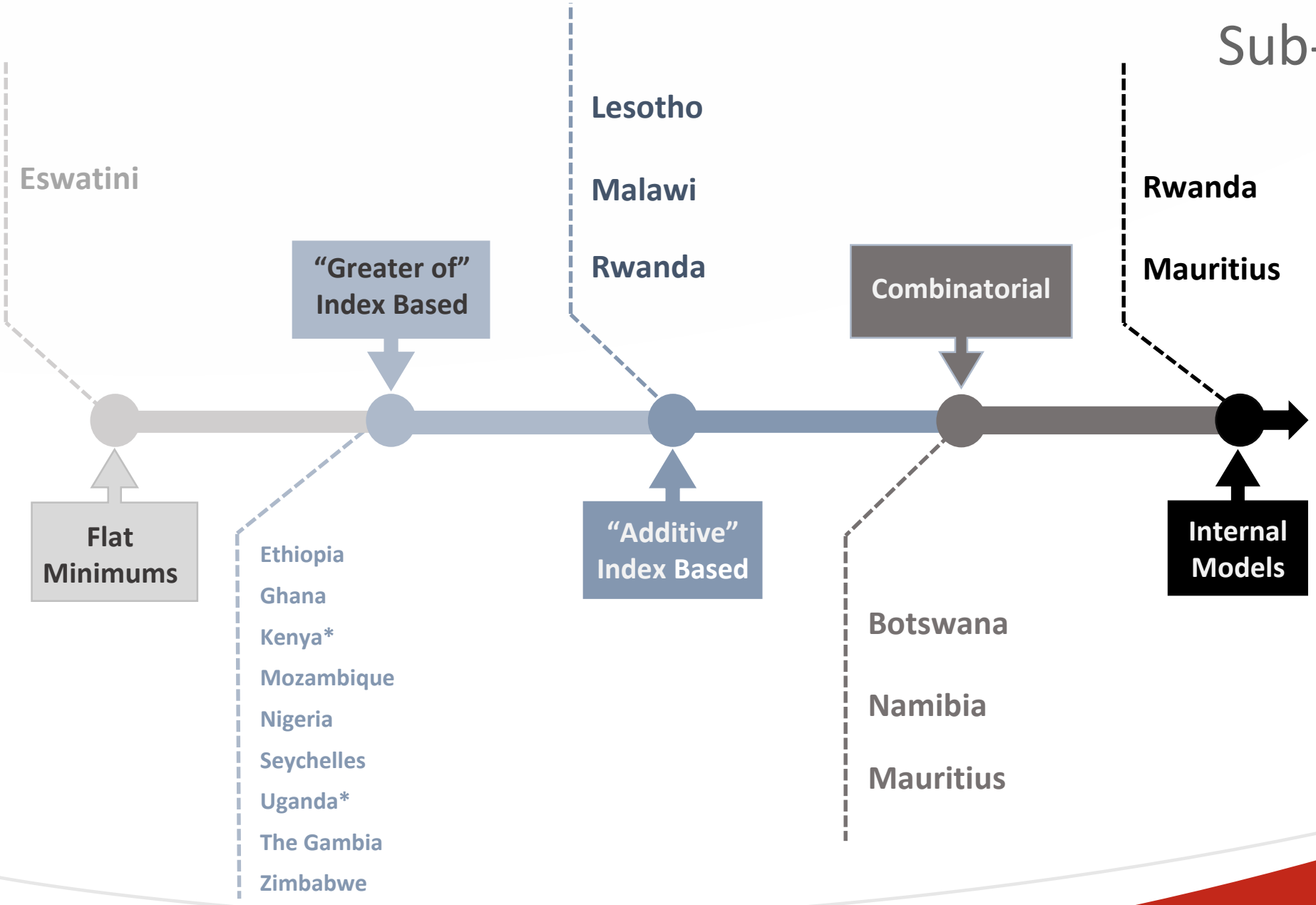
Asia


Myanmar
Flat Minimums
"Greater of" Index Based
Azerbaijan
Brunei
Cambodia (GI)
Hong Kong
Lao PDR
Macao
Indonesia
Maldives
Nepal
"Additive" Index Based
Combinatorial
Philippines
Sri Lanka
Internal Models

The Caribbean



Sub-Sahara Africa



Flat Minimum

- Often a “nominal” minimum ranging up to USD 5m
- For the Caribbean the flat minimum only applies to long-term (life) insurers and not general insurers
- Flat minimum is often retained alongside a more advanced regime.
- When the flat minimum is retained there is usually a different amount for life vs general insurers. Life sometimes higher than GI, but not always

Greater of

- For general insurers this is usually a set percentage of net EP (often 20%). In rare cases it may also include technical provisions
- For life insurers a range of approaches exist, including percentage of gross premium, technical provisions, sum insured at risk, net profits and/or a contingency margin determined by the Actuary

Additive - Index Based

- Pre-defined risk factors applied to some measure of risk.
- The measure of risk can vary; premium, technical provisions, sums insured, asset values (depending on the underlying risk being assessed)
- For life insurers capital requirements are sometimes set at different levels; statutory fund, shareholder fund and the insurer as a whole. For general insurers the focus is usually on premium risk and reserving risk
- There can be ranges of sophistication and complexity within this category, ranging from simple factors, to stress testing to re-valuation to multiple risk categories & risk exposures and varied treatment of (admissible) assets
- A key challenge is the determination of the risk factors “specific to the country”

Combinatorial

- This is the closest to Solvency 2 (without ‘internal model’), more like “Solvency 1.5”
- A key difference here is the allowance for diversification. Other key differences include;
  - underlying techniques beyond risk factors e.g. use of stress testing or stochastic modelling
  - level of granularity e.g. risk categories, risk exposures, risk transfers
  - requirements for life insurers vs general insurers
  - allowance for margins and actuarial judgement

Placement on the Spectrum

- Caribbean is the only region with a material number of countries using ‘Flat minimum’. Most other regions have countries at ‘Greater of’ or above.
- Significant “bunching” of countries at the first step i.e. ‘Greater of’
- ‘Greater of’ simplest first step, requires more resources & time to get beyond this to a risk factor type capital regime
- For those countries that have moved beyond ‘Greater of’ most of them use ‘Additive – Index Based’
- Very few countries using ‘Combinatorial’, and just 2 countries (in one region) provide the option of internal model

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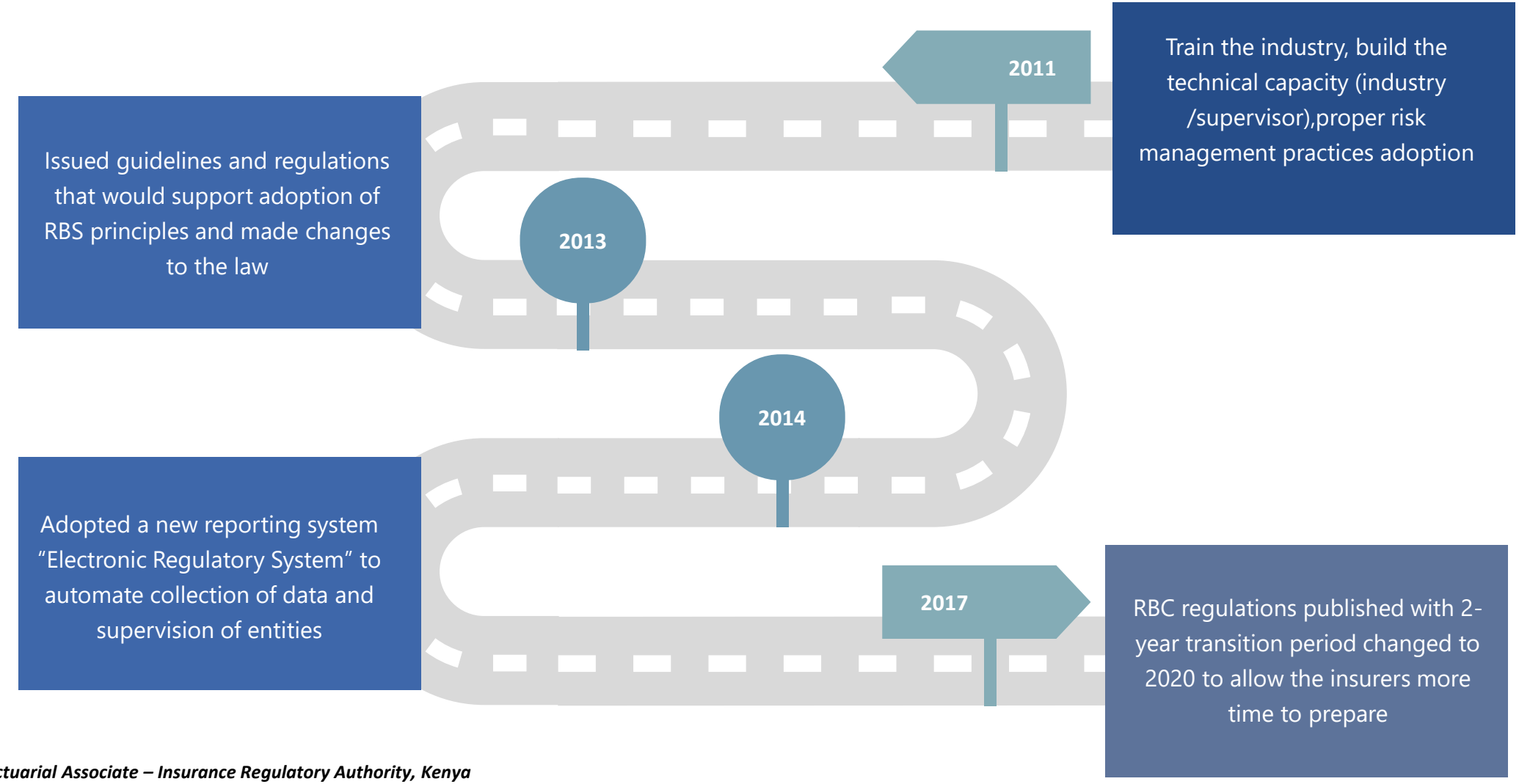
Insurance Regulatory Authority of Kenya Case Study |Elias Omondi

THE RBC JOURNEY

CLOSE TO TEN YEARS



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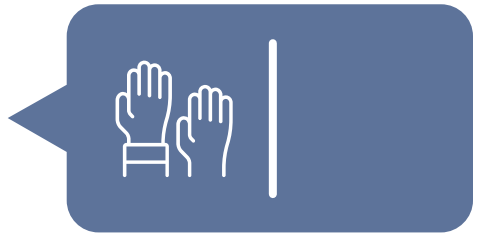
Bima Bora kwa Taifa

THE CASE FOR RBC

Existing approach did not adequately assure solvency and protection of consumers - Linking the regulatory required capital to the risk profile of the insurer

Deliberate intention to be proactive – assess risk and assure solvency beyond a point in time - Risk Profiling

The need to incorporate risk management into insurance business practices - Establishing a common risk aware culture within the organization (Enterprise Risk Management)



Harmonization to international standards - framework developed is appropriate, fit for purpose and proportional to the insurance market

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THE MODEL

SIMPLIFIED SOLVENCY II

Modular Standard Formula

Capital required for insurance risk, market risk and credit risk and Operational risk .

Capital Resources

Capital tiered in levels based on available, absorbency and permanency

Capital Charges

Capital charges calculated for individual risks. Model has adopted factor based and stress based approach

Aggregation

There are no correlation coefficients in the formula (in view of proportionate modelling, sum of squares approach was adopted to allow for diversification.

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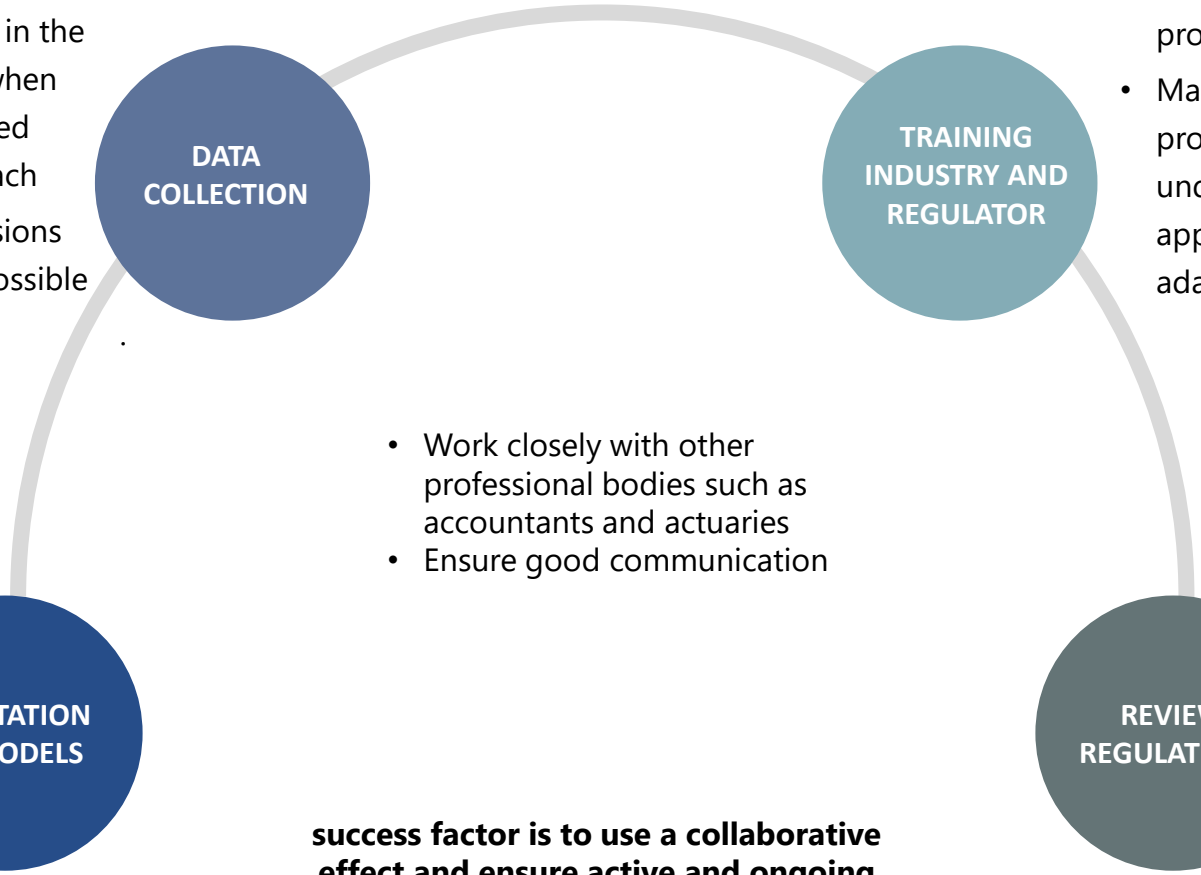
LESSONS LEARNT

ITS CHALLENGING BUT POSSIBLE



- Make sure data collection is given proper place in the planning process when devising a risk-based supervisory approach
- Make data submissions electronic where possible

- Make sure training is provided for all
- Make training on-going process to enable understanding of the approach and models being adapted

- Look at a range of available models –consult widely and adapt carefully.
- Built in flexibility to upgrade models and systems.

- Issue guidance notes explaining requirements of various stakeholders, standards expected of them;
- take views on board and ensure "buy-in"

- Work closely with other professional bodies such as accountants and actuaries
- Ensure good communication

success factor is to use a collaborative effect and ensure active and ongoing stakeholder consultation and engagement

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Thank you.

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