



Stress Testing and Capital Requirements in the Caribbean

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CONSULTANTS + ACTUARIES

Jamaica – Minimum Capital Test – What is it?

- Ratio of capital available to capital required
- Risk-based test
- Regulatory minimum is 100%
- Regulatory target is 200% (gradually transitioning to 250%)

Jamaica – MCT – How do you do it?

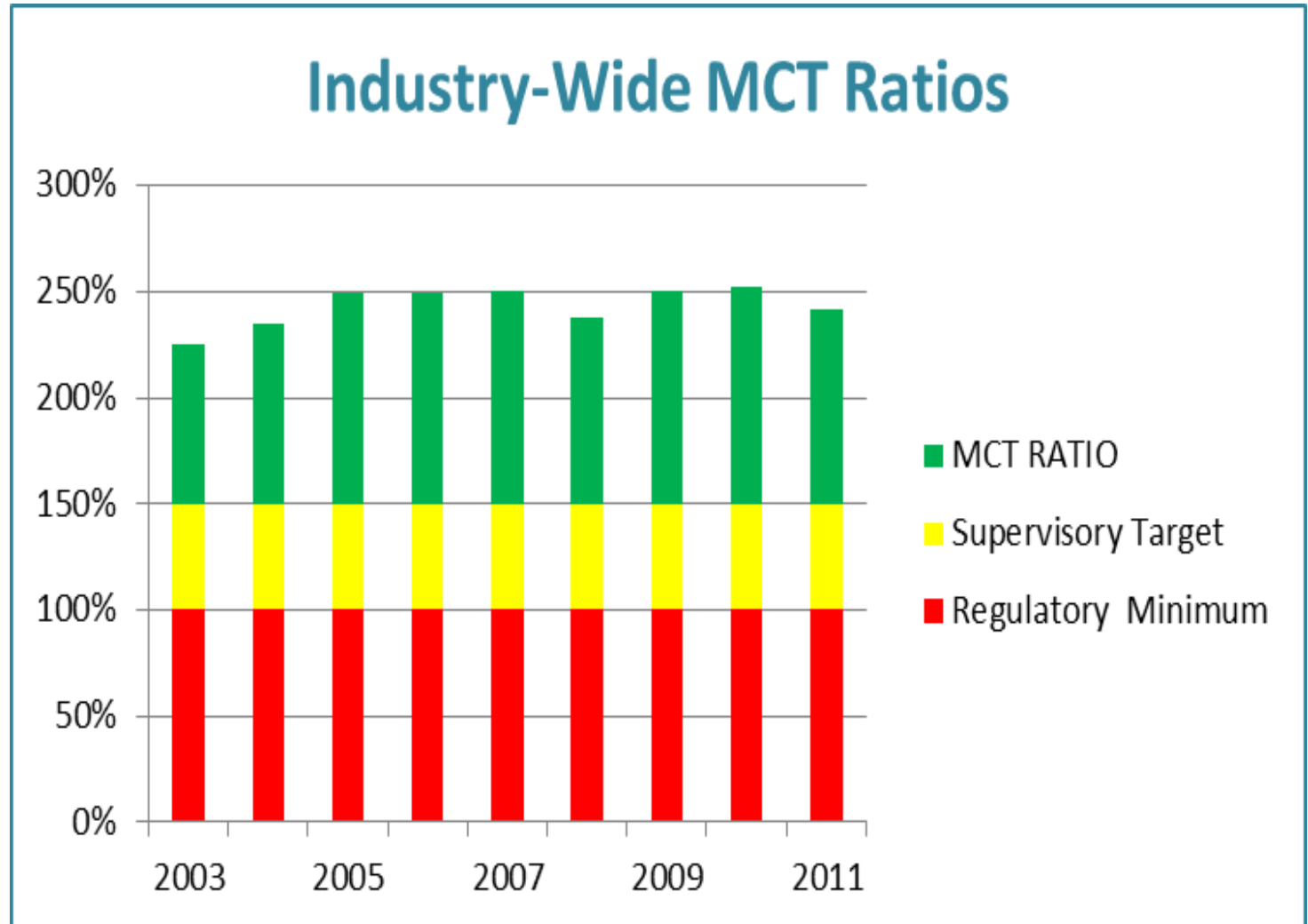
Capital		(J\$'000)	
Capital required for:			
Assets		1	55,163
Policy Liabilities		2	94,754
Subsidiaries – Regulated Financial Institution (Subject to FSC approval)		3	
Catastrophes – Default or Model-Generated Method		4	87,910
Foreign Exchange Risk		5	21,526
Other (Specify)		6	
Total Capital Required	sum of 1 to 6	A	259,353
Total Capital Available		B	726,730
MCT Ratio	$(B/A)*100$		280.21% 21%

Comparison with Canada - MCT

- Current capital test in Canada is also a Minimum Capital Test comparing capital available and capital required

	Jamaica	Canada
Regulatory Minimum	100.0%	100.0%
Regulatory/Supervisory Target	200.0%	150.0%
Net Unearned Premiums	10.0%	8.0%
Net Unpaid Claims		
Property	7.5%	5.0%
Motor	12.5%	5.0% - 10.0%
Liability	20.0%	15.0%
Other	20.0%	15.0%

Comparison with Canada - MCT



Jamaica - Stress Testing – Why do it?

- ✓ Identify and control risk
- ✓ Complement other risk management tools
- ✓ Support capital management
- ✓ Improve liquidity management

Jamaica - Stress Testing – What are we testing?

- ✓ Insurance risk
- ✓ Market risk
- ✓ Credit risk
- ✓ Operational and legal risk
- ✓ Group risk
- ✓ Systemic risk

Jamaica - Stress Testing- Report format is prescribed

- At “**LEAST**” include these sections in this order:
 1. Executive Summary
 2. Introduction
 3. Background
 4. Base Scenario
 5. Initial Testing
 6. Further Testing
 7. Conclusion and Recommendations
 8. Opinion
 9. Appendices

Comparison with Canada

- Called Dynamic Capital Adequacy Testing (DCAT) in Canada, performed annually by Appointed Actuary
- Implemented for P&C in 1998
- Generally very similar to proposed Stress Testing in Jamaica

Comparison with Canada – Stress Testing

- DCAT Process:
 - ✓ Develop base scenario
 - ✓ Identify threats (risk categories)
 - ✓ Develop and project plausible adverse scenarios
 - ✓ Report results to senior management, Board, Office of the Superintendent of Financial Institutions Canada (OSFI)

Comparison with Canada – Stress Testing

- Risk categories for DCAT include:
 - ✓ Claim frequency and severity risk
 - ✓ Policy liabilities risk
 - ✓ Premium risk
 - ✓ Investment risk
 - ✓ Inflation risk
- Severe but plausible events to be tested are deemed to be between the 95th to 99th percentile of outcomes
- For Single Catastrophes, higher percentile is used (1 in 250 to 1 in 500 years)

Canada – Examples of Stress Testing Scenarios

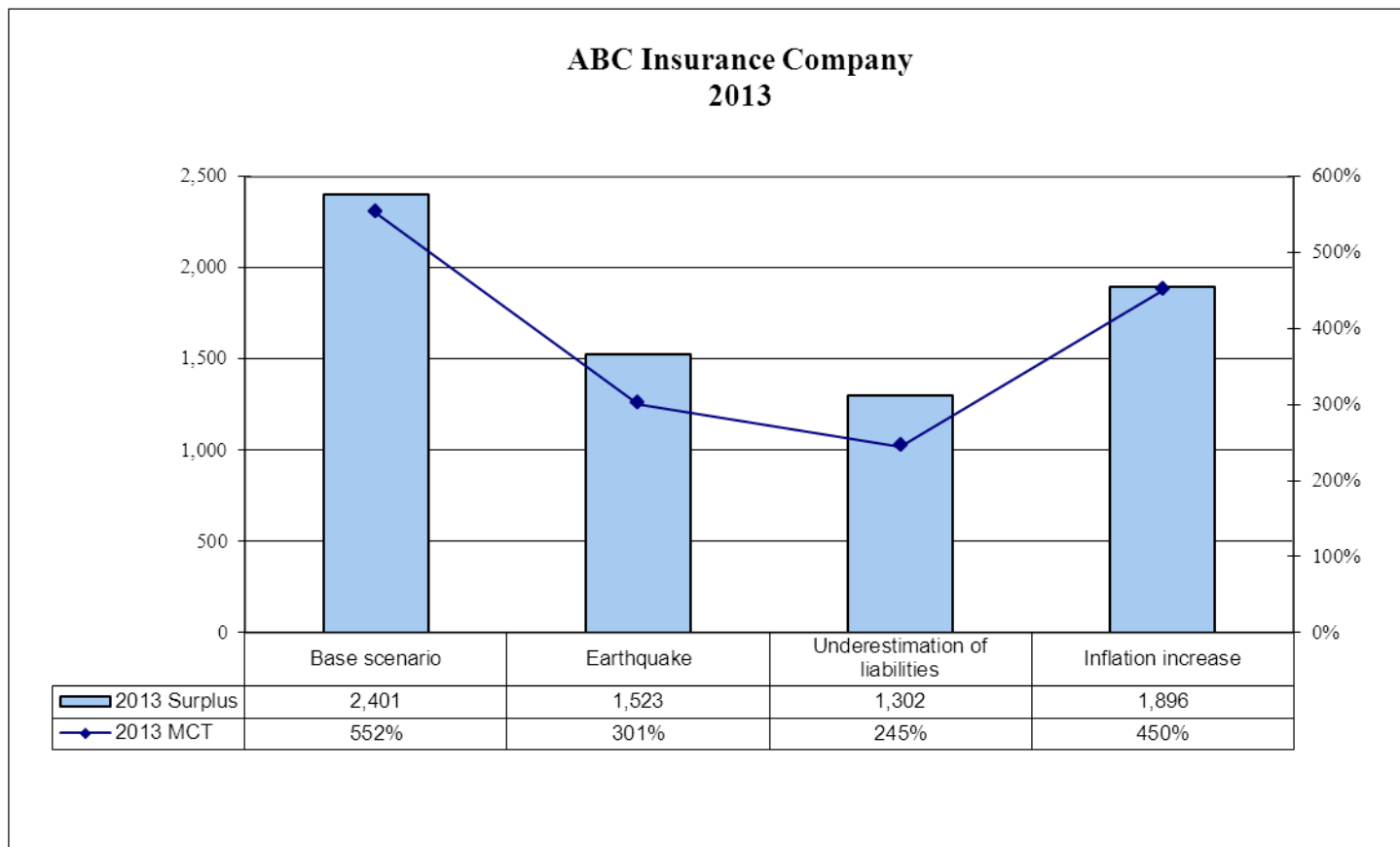
- Policy Liabilities Risk:
 - ✓ Underestimate claim liabilities at prior year-end by 30%, +
 - ✓ Increase in current year loss ratio above plan of 12 percentage points, +
 - ✓ Offsetting increases in rate level at some point
- Premium Risk:
 - ✓ Decrease in premium volume of 30% from plan, +
 - ✓ 10% increase in loss ratio
 - ✓ Also model significant increase in premium volume

Canada – Examples of Stress Testing Scenarios

- Investment Risk:
 - ✓ Significant upward parallel shift in yield curve of 300 bps (or significant upward non-parallel shift)
 - ✓ Significant downward shift in yield curve

- Inflation Risk:
 - ✓ Sustained increase in loss trend of 3% per annum for 5 years, +
 - ✓ Inflation of 3% per annum on general expenses, +
 - ✓ Upward parallel shift in yield curve

Canada – Examples of Stress Testing Scenarios



Comparison with Canada – Stress Testing

- Satisfactory financial condition:
 - ✓ Base scenario: MCT > supervisory target
 - ✓ Adverse scenarios: Assets > Liabilities
- MCT internal target capital ratio to be reviewed annually (OSFI Guideline A-4)
- SST: Regulator has been requiring of late additional Standardized Stress Tests to be performed (OSFI Guideline E-18)

OECS Territories

- Appointed Actuary function exists
- Actuarial reports required once every three years
- No DCAT / stress testing required or anticipated

Trinidad & Tobago

- Appointed Actuary function anticipated
- Details of liability calculations need to be provided to regulator
- DCAT / Stress testing anticipated

Barbados

- No Appointed Actuary function
- Details of liability calculations need to be provided to regulator
- No DCAT/Stress testing required or anticipated

▪ **For more information, you can contact us at:**

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Thank you!