

ENTERPRISE RISK MANAGEMENT

ERM

Symposium

Where Cutting Edge Theory Meets State of the Art Practice

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Swissôtel Chicago
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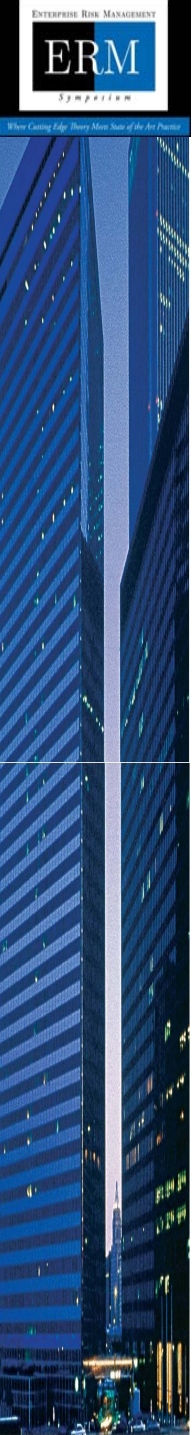
Enterprise Wide Stress Testing

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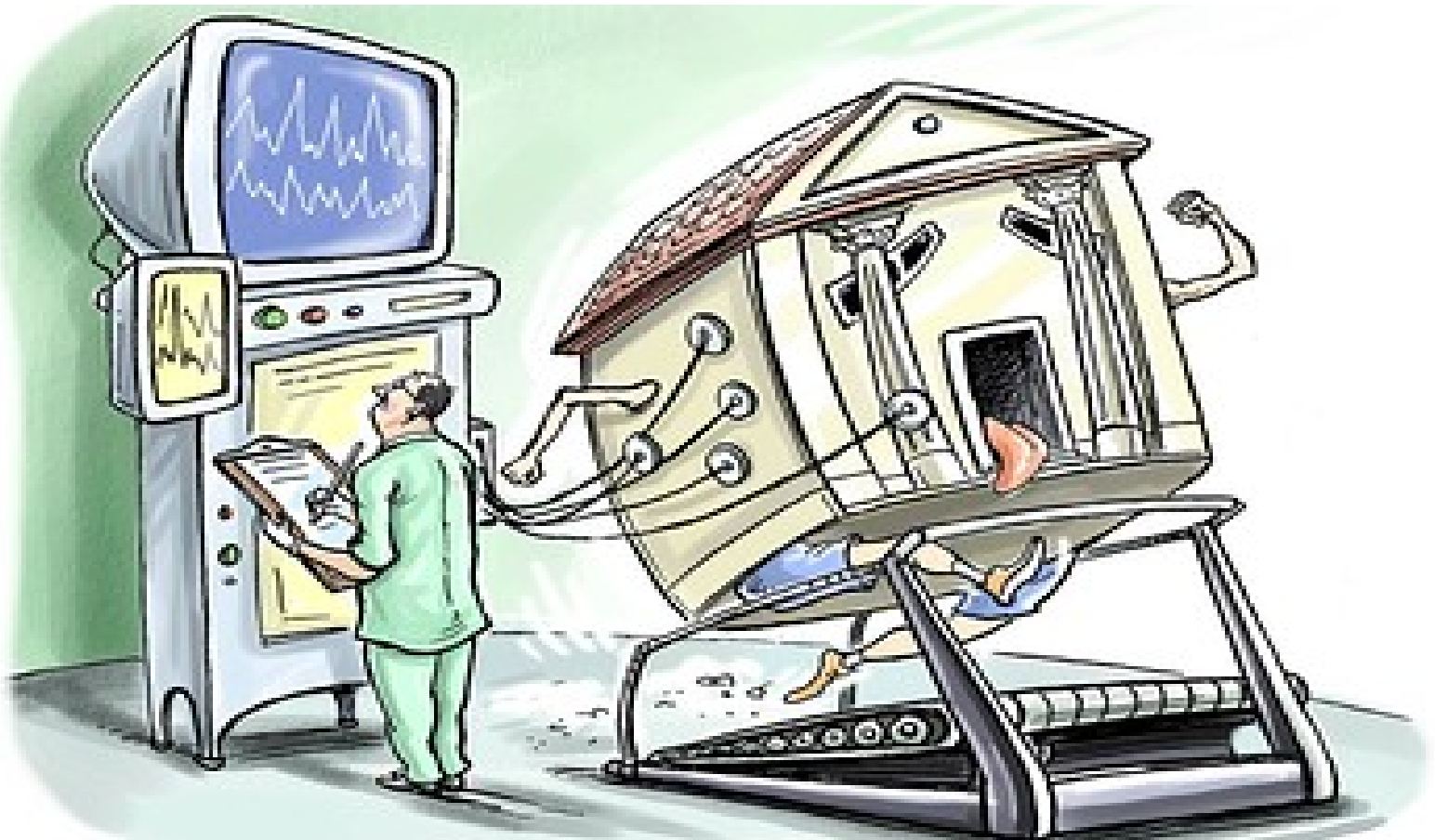


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Doc, will this be an annual test!?



Chad Crowe

Stress Testing Around the World

- Stress testing is used globally by management and regulators as a means to evaluate a bank's viability in economic downturns.
- Some regulators (e.g. US and European Union) have published prescribed stress scenarios and subsequent results for key financial institutions.
- US regulators have indicated an upcoming round of stress tests that will impact the ability of financial institutions to distribute capital (dividends, acquisitions)
- Not all regulators publically disclose stress test results, but all regulators participate in stress testing assessments with institutions in their jurisdiction

Objectives of Stress Testing

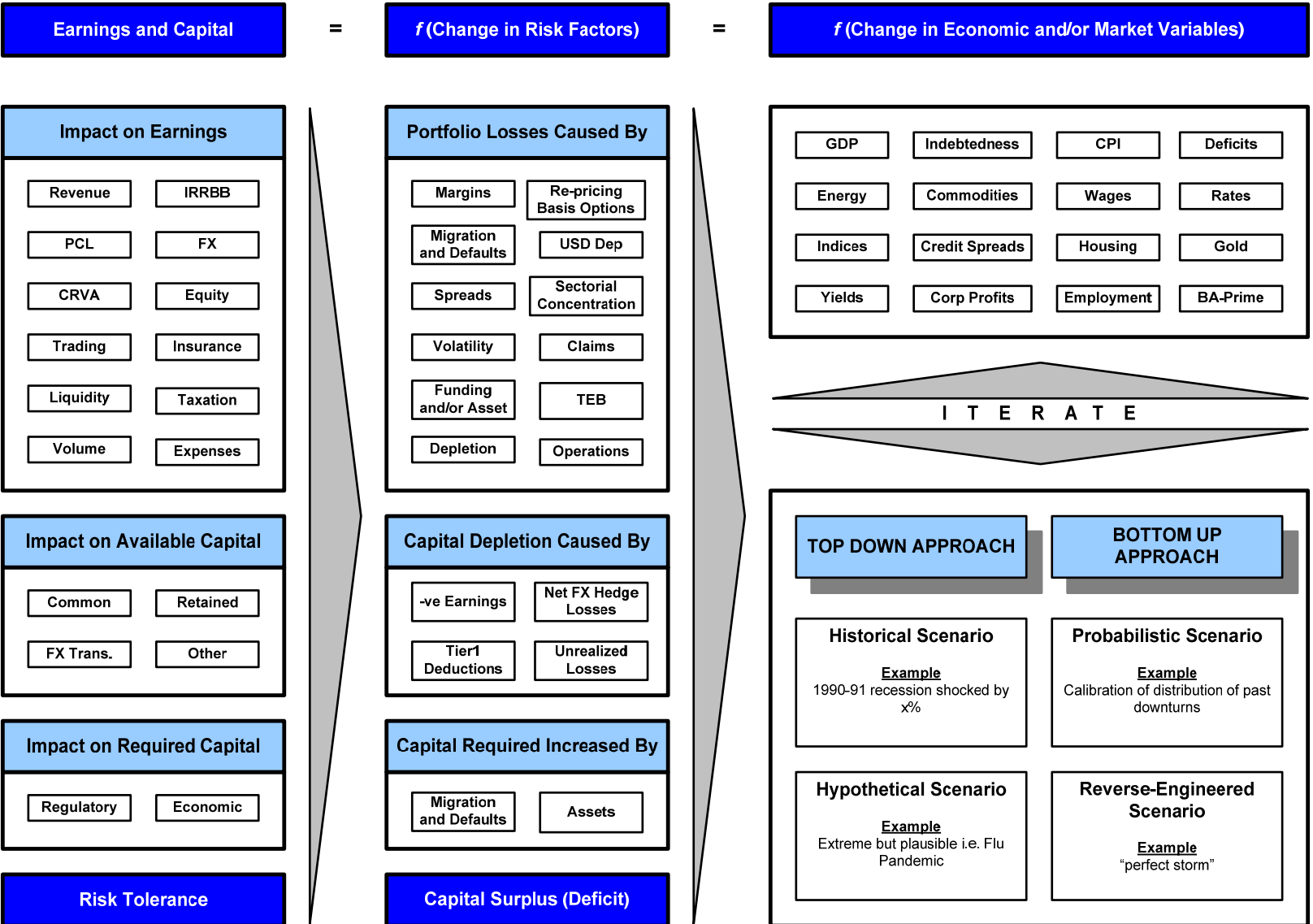
- **Key Risk Management and Business Tool**
 - Identify and measure significant risks
 - Identify mitigating actions to offset those risks
 - Assess capital adequacy during stress events

- **Stress testing is an integral and necessary part of the Internal Capital Adequacy Assessment Process (ICAAP) under Basel II**

- **Different approaches to stress testing**
 - Top-Down approach
 - Based on historical or hypothetical scenarios that are largely economic in nature

 - Reverse-Engineered approach
 - Defining a stress outcome severe enough to challenge the viability of the bank and then identifying what events could lead to this outcome

Approach to Stress Testing



Basel Guidance on Stress Testing

- **Principles for Sound Stress Testing Practices and Supervision** was issued by the Basel committee in May 2009
- **Key principles addressed in the guideline:**
 - Stress Testing should be an integral part of overall governance and risk management culture at the Bank where results are actionable and incorporated by management in strategic business decision making process.
 - Stress Testing should promote risk identification and control, complement other risk management tools such as VaR, Economic Capital, improves capital and liquidity management and enhances communication of risk.
 - Stress Testing should be an enterprise wide function that accounts for views from across the organization covering range of perspectives and techniques.
 - Stress Testing should be robust, flexible infrastructure to accommodate changing stresses at sufficient level of granularity.
 - Stress Testing scenarios should be geared towards events generating “worst-case” losses that challenge the viability of the Bank (reverse stress test).

Categorizing Stress Tests

Tier 4

Narrow sensitivity based stress tests focused on a specific segment or portfolio.

Tier 3

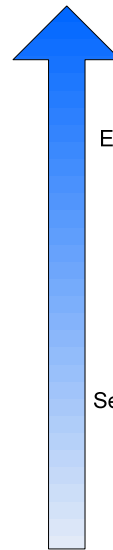
Broader form of a sensitivity based stress testing which can include multiple segments/portfolios.

Tier 2

Introduction of scenario based stress testing at a portfolio or single risk factor level.

Tier 1

These stress tests are defined as a Scenario based (with multiple risk factors) which could affect multiple segments/portfolios or even the entire Bank.



Enterprise Wide

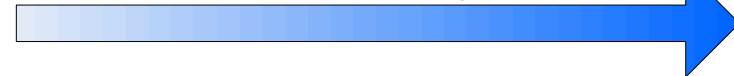
Segment/Portfolio Specific

Stress Testing Scope Matrix	
Tier 2	Tier 4
Tier 1	Tier 3

Sensitivity Based Testing

Scenario Based Testing

Complexity



Stress Testing Challenges

- **Developing meaningful and relevant scenarios**
- **Conflicting demand on same resources with subject matter expertise**
- **Building robust, flexible and scalable technology infrastructure**
- **Assessing feedback effects, eg., macro and micro**
- **Assessing correlations between different risk types**
- **Making Stress Test results actionable**

