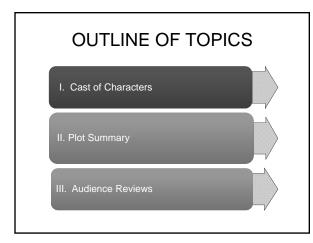
Systemic Risk in the Eye of the Regulator: To Be, or not to Be (a SIFI, that is)

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Cast of Characters

- Review of Original Hamlet
- In the wake of 2008 crisis, which of the cast of characters below will be Hamlet, Polonius, Ophelia and Claudius?
- Should this play remain a recurring tragedy, devolve to just a mystery/drama or evolve to Father Knows Best?

Who will rule - Hamlet or Claudius?

- Financial Stability Board (FSB)
- Int. Assoc. of Insurance
 - Supervisors (IAIS) – Solvency Subcommittee
 - Solvency Subcommittee
 Technical Committee
 - Macro Prudential Supervisory
 - Working Group (MPSWG)
 - Financial Stability Committee
- NAIC Various Comm.Treasury
 - Office of Financial Research (OFR)
 - Fed. Insurance Office (FIO)Financial Stability Oversight
 - Council (FSOC)
- Fed. Reserve (Met Life Stress Tests & Chicago)

 Regulators in Other Countries

Who has solutions – Polonius or Shakespeare?

- Regulators in Other Countries
- International Monetary Fund (IMF)
- Organisation for Economic Co-operation and Development (OECD)
- International Actuarial Association (IAA)
- Economists

ACLI

- Lawyers
 Eineneial Com
- Financial Services Round Table

What Kingdoms Care Outside of Denmark?

- Regulators in Other Countries
 Insurance & Banking
- Banks
- Hedge Funds
- Investment Banks

Can Ophelia be Saved?

- Taxpayers
- BorrowersLenders
- Policyholders
- SIFI'sInternationally
- Savers
- Exchanges
- Active Insurance Groups (IAIG's)
- Investors
- Hedgers

Casting Call

- 1. Can the Regulator Become the Hero?
- 2. A new character is needed. If added to the play, what will be the source of their Secret Power that changes the play from tragedy to a mystery/drama?

Plot Summary

Or

What's in Your Regulatory Toolkit?

How Can We Change From Tragedy to Continuing Series?

- 1. Deux Ex Machina Focus on the right answers (Father Knows Best)?
- 2. Death Star Focus on the power to compel/manage?
- 3. Colombo or Poirot– Focus on finding better questions?

Mystery

- If all Models are Wrong, What Evil Lurks in the Shadow of the Accounting Models?
 - Goal of ERM is to "see" the shadows in the hearts of management's business model before they end up in the glare of a busted balance sheet
- Equivalent of Broken Windows in Police Work
- Regulatory Focus To find fatal flaws means to move from analysis to synthesis and to syncretic thinking

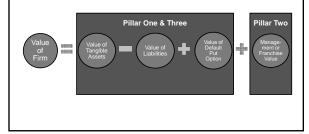
Matching Toolkits to Fatal Flaws

- What systems are in a House?
 - Electricity
 - Water
 - Natural Gas
- What Fatal Flaws are There?
 - Frozen Pipes
 - Fire
 - Carbon Monoxide
 - Mold
 - Tornado

What is the Value Equation?

Value of Put Option -

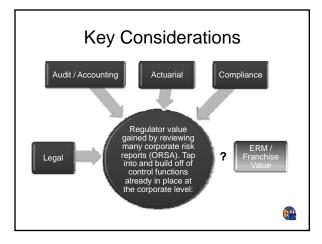
(Babbel / Merrill Journal of Risk & Insurance 2005)



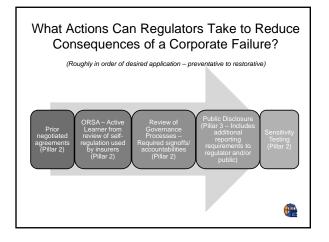


Rx for Regulatory Heroes Need to be Three Pillars Strong

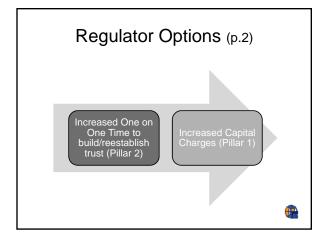
- Pillar One = Reported Balance Sheet
 - Which is a better soothsayer?
 - Average of the past
 - Average of today
- Pillar Two = Supervisor Actions (Risk Focused Exams)
 - Next Step = Review of Risk ControlsBut for What Purpose?
- Pillar Three = Disclosure
 - Public (financials & 10K) is not enough
 - Pilot = Private/Confidential via the ORSA



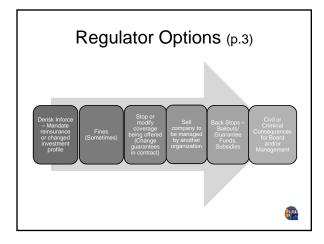














What is the Problem?

- Task = Mitigate breakdown of complex markets and/or organizations
- Job Skills Needed for Task =
 - Manage complexity of an adaptive/evolving world of risk uncertainty
 - Process to ask better questions
 - Be a soothsayer, i.e., need just enough hints to give a head start and early warning to see evolving/emerging patterns so actions can be taken to prevent a future tragic fate
 - Grizzly bear story does not work for regulators

Past Breakdown = Pillar One & Three Uniformity

- · As a model, all balance sheets are "wrong"
 - They have shortcomings and create incentives that will, over time, build up outside of the balance sheet.
 - Example of gaps in market value accounting.
 - Use of risk charges based on today's assessment of risks leads to systemic concentrations into assets/activities that bring the same yield with a lower risk charge or the same risk charge with a higher yield.
 - When the market turns, all the players will need to exit their positions at the same time increasing procyclicality of systemic volatility(unless market can be slowed down).
 - Risk that cannot yet be measured will be taken on without "cost"

Challenges to a Unified Capital Standard

• Comparability

- Time Horizon
 - Bank
 - P&C
 - Life
- Replenishing Capital
 - Fed
 - Renewal Premiums
 - Dividends/Non-Gtd. Elements
- Purpose
 - Restore Trust vs. Pay off Full Liability after stress

Purposed Purpose of ComFrame

- Clarify Pillar Two processes needed to manage the limitations of Pillar One & Three, to manage complexity and to increase the "Value" of the Regulator.
 - 1. Recognize the interactive role that regulations have on the system
 - Includes focus on the impact of regulatory behavior and processes as well as the assessment of management behavior and processes
 - 3. Complexity goes hand in hand with the value created by specialization.

Three Key Regulator Assets – Source of Informal Power

- If able to see everyone's "risk cards"
- If able to create a Pillar Two process of risk debits and credits
- The use of ERM & ORSA to manage (add value to) these two assets
 - M(anagement) process is the foundation to successfully manage R(isk)

Seeing All the Risks

- Pillar Two is about not being blindsided by Pillar One & Three incentives
- Research on maximizing the value of M (management decisions) indicates it is a function of maximizing the relevant information from all the key stakeholders
 - Industry incentives can be to hide information due to antitrust and competitive reasons

Debits & Credits

- In accounting it defines who "owns/has control/accountability" of cash

 Audit key = Follow the Money
- Need a process to define who owns or manages risk.
 - Can you follow the risk? Is it transparent who is accountable for the management of the risk?

Pillar Two - Adding Value from the ORSA

- Identifies Risks assumed (Transparency)
- States measurement used for risk exposure (Accountability)
- Governance process around Risk Budget & Internal Models (Risks can't Disappear)
- Dialogue/Feedback Process between industry, profession and regulators increases shared information

How to Manage Pillar Two Value?

- Can ORSA ultimately address the following questions to quickly highlight emerging risks, which firms need the most attention, impact of regulations on the market, etc.
- After a year or two, questions will evolve and improve

How to Use ORSA?

Regulator Could Compile Across Organizations:

- 1. Identified Risks
- 2. Risk Measurement Tools
- 3. Corporate Risk Budgets and Corporate track record of deviating from them
- 4. Focus/method for creating value

Regulator Questions for an ORSA

- 1. Is there a defined value generating activity of the company
- 2. If to manage risk, what bets are being made?
- 3. Are the bets diversified or is the firm just taking one big bet?
- 4. What are the shortcomings or rather key assumptions built into the business model?
 - For example, in insurance, which sells promises, can value really be created by selling promises which don't need reserves or capital to back them? Does the business model need a key assumption such as "Assume that housing prices can never go down" to be sustainable?

ORSA Questions

- 5. Does the firm have multiple ways of evaluating and pricing its risks to be aware in changes in its profile or does it rely on a single source of information (like the competition)?
- 6. Is there a control cycle regarding the level of risk taken? This implies measurements, appetites, limits, treatment actions, reporting, feedback.
- 7. How does the firm evaluate and manage its tail risks?
- 8. How does the firm use its risk information to take advantage of the opportunities that are often associated with its risks and what examples can it show of how a risk budget impacts its risk taking decisions?

ORSA Questions

- 9. For retained risks, how does the firm set aside (reserves) for expected losses and capital for excess losses?
- 10. Does the firm document changes in limits/budgets, controls, corporate objectives, changes in business plans (even when new management is brought in)?
- What controls are built into the process to challenge the "optimistic shine" tendency? (Could an actuarial standard on risk management with a sign off be effective here?)

Three M Actions for Regulators

- Make a thoughtful construction of scenario(s) to be used for stress testing. (IAA/IMF work is in progress on this topic)
- Identify which organizations or value creating methods need the most attention and how to spend that attention. (This may mean quarterly or annual conference calls similar to how ratings agencies do this, or calls triggered by a yellow flag indicator that pops out of the above analytics)
- Identify ahead of time needed regulatory actions and agreements to manage a crisis (Movable capital and how to value it, how and if corporate risk culture might impact required capital, etc.)

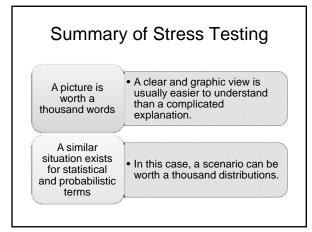
Regulator Value Generated From ORSA Process

Regulators can compile an aggregate list of:

- Identified Risks
- Risk Measurement Tools
- Corporate Risk Budgets

From this begin thoughtful construction of scenario(s) to be used for stress testing

Identify ahead of time needed actions and agreements to manage a crisis



Other Items

- This generalizes to regulation of the insurance firm, the IAIG, to systemic risk and even to noninsurers.
- Challenge of ORSA & Stress testing is to add value when there is already too much information (Create a process to increase discernment)
- ICP 16 focus is on what companies need to do successfully manage their complex risks. Why wouldn't regulators need this as well?

Next Steps

- IMF/IAA Monograph on Stress Testing (2Q 2012)
- IAA work with IAIS on ComFrame & Macro Prudential Insurance Supervision
- Academy work at Federal & State (NAIC) level – FIO, ORSA, SMI
- Actuarial Standards on ERM