

# Enterprise Risk Management

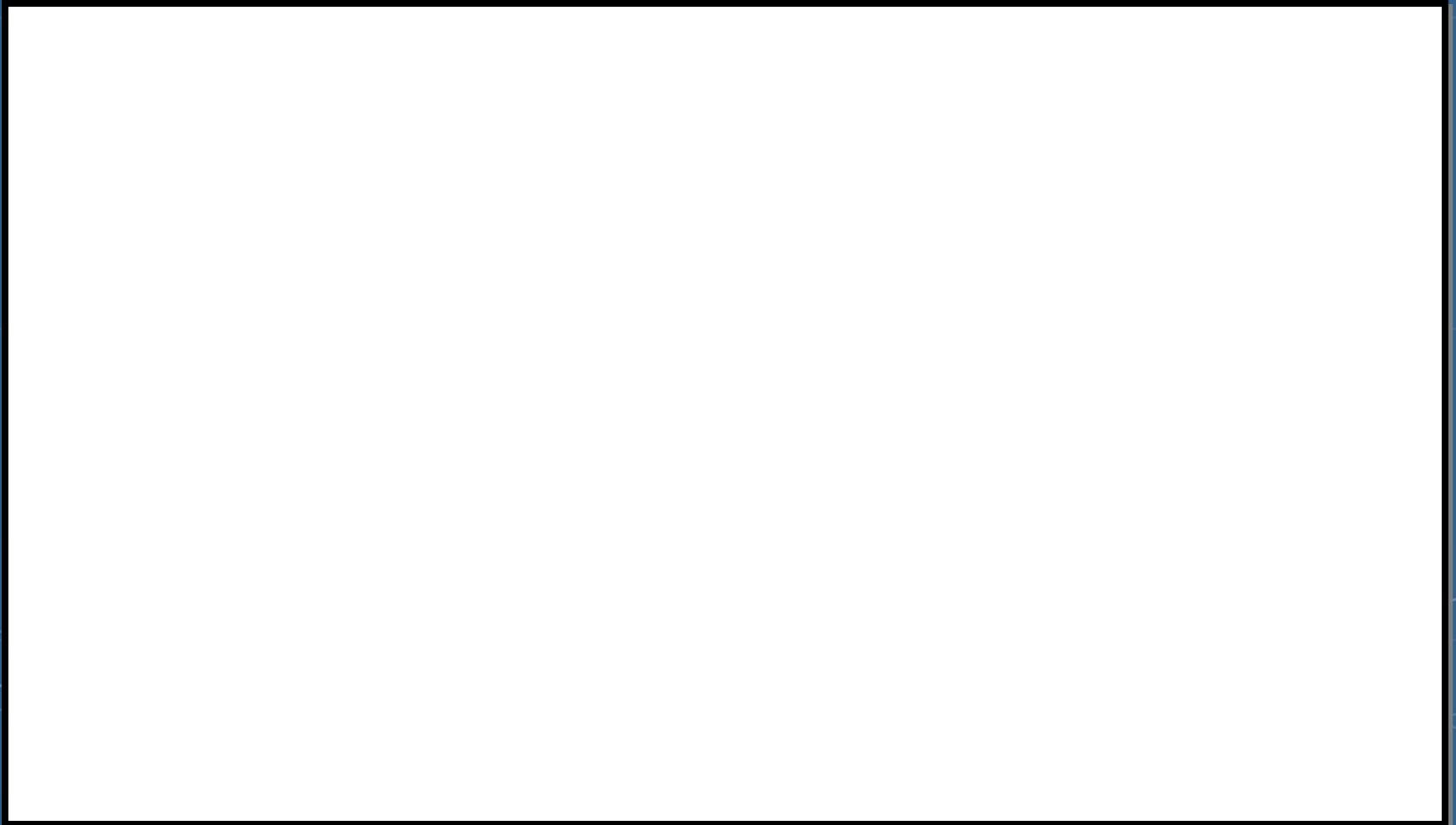
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PRMIA Toronto  
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# Foundations of Firm Value

- Discounting future states of the world
- Efficient markets
- Information widely shared and symmetrical
- Challenges?

# Risk Management



# Foundations of ERM

- Corporate-wide, holistic view
- Putting a price on 'risk'
- Elimination of “silos”
- Integration into business planning

# Classic Approach to ERM

- James Lam Four Steps
  - ERM Foundation Setting
  - Risk Identification and Assessment
  - Risk Measurement and KRIs
  - Risk Mitigation and Management
- A dashboard

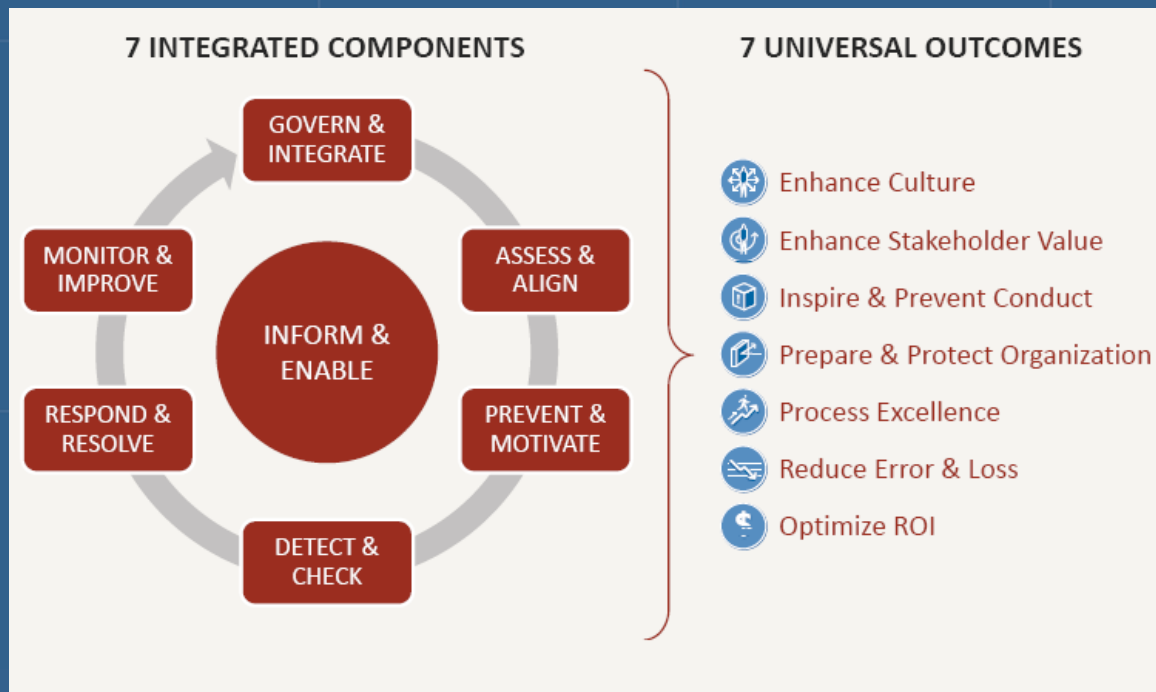
# COSO Approach to ERM

- Audit and Accounting Driven
- Tick-box - Auditable
- A cube



Source: COSO

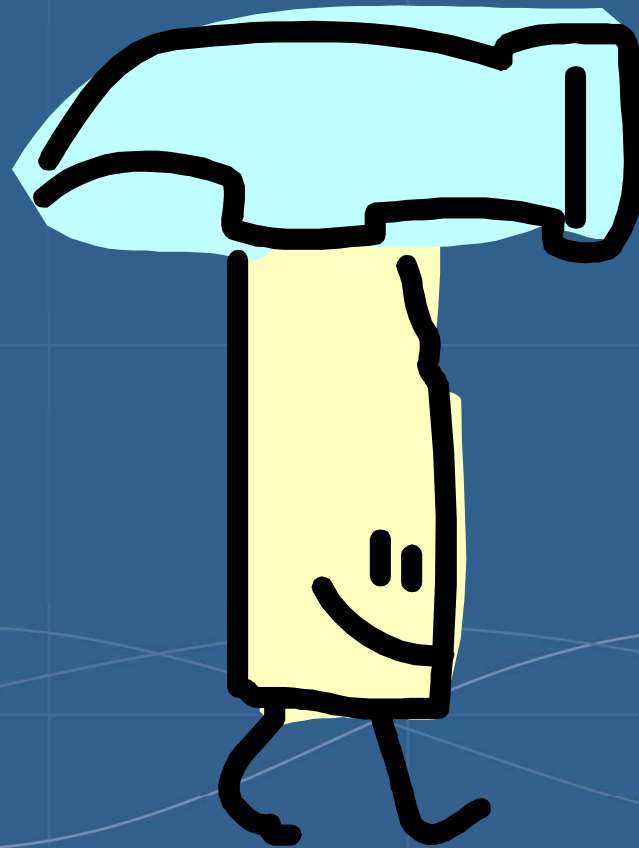
# GRC/OCEG Approach to ERM



- “Principled Performance”
- Applying tried and true business performance enhancement techniques to non-traditional activities
- A circular flow

Source: OCEG

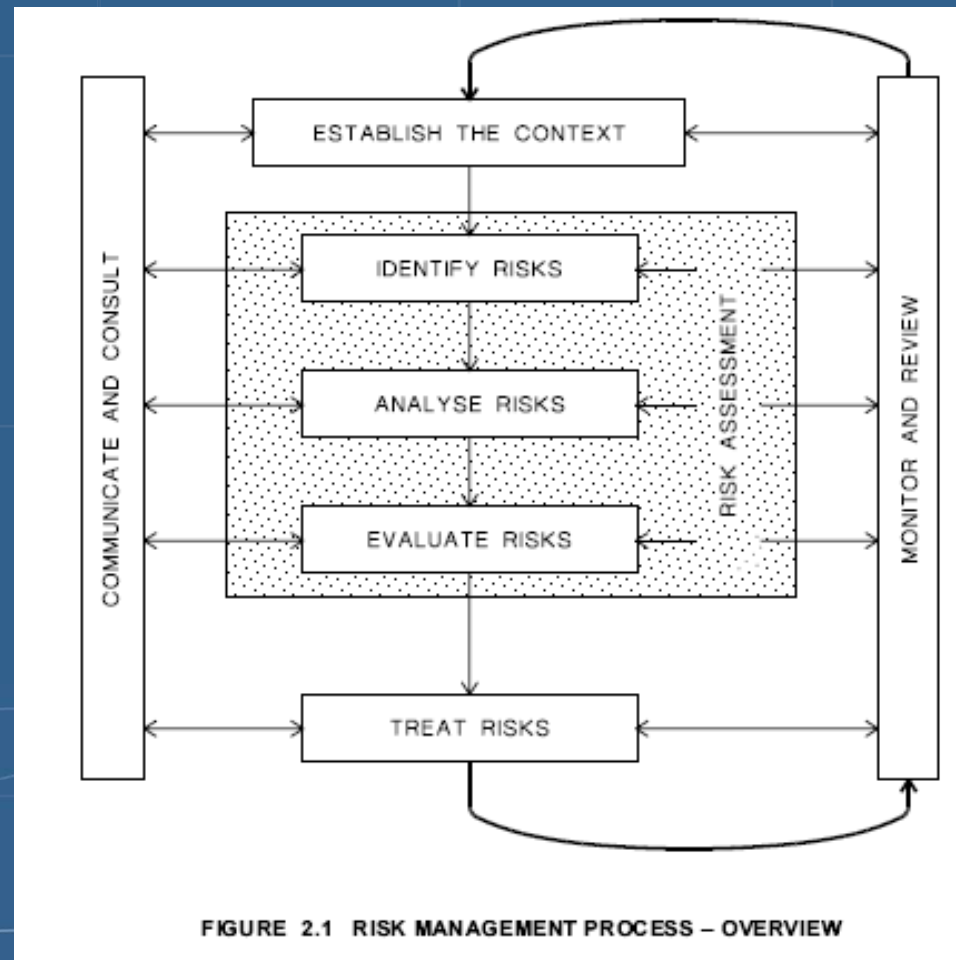
# SOX Approach to ERM



# ANS/NZS 4360 Approach to ERM

- Principle-based
- The major risk for most organizations is that they fail to achieve their strategic, business or project objectives, or are perceived to have failed by stakeholders
- Understand losses and gains

# ANS/NZS 4360 Approach to ERM



Source: Risk Standards Australia

# Recent Critique to ERM

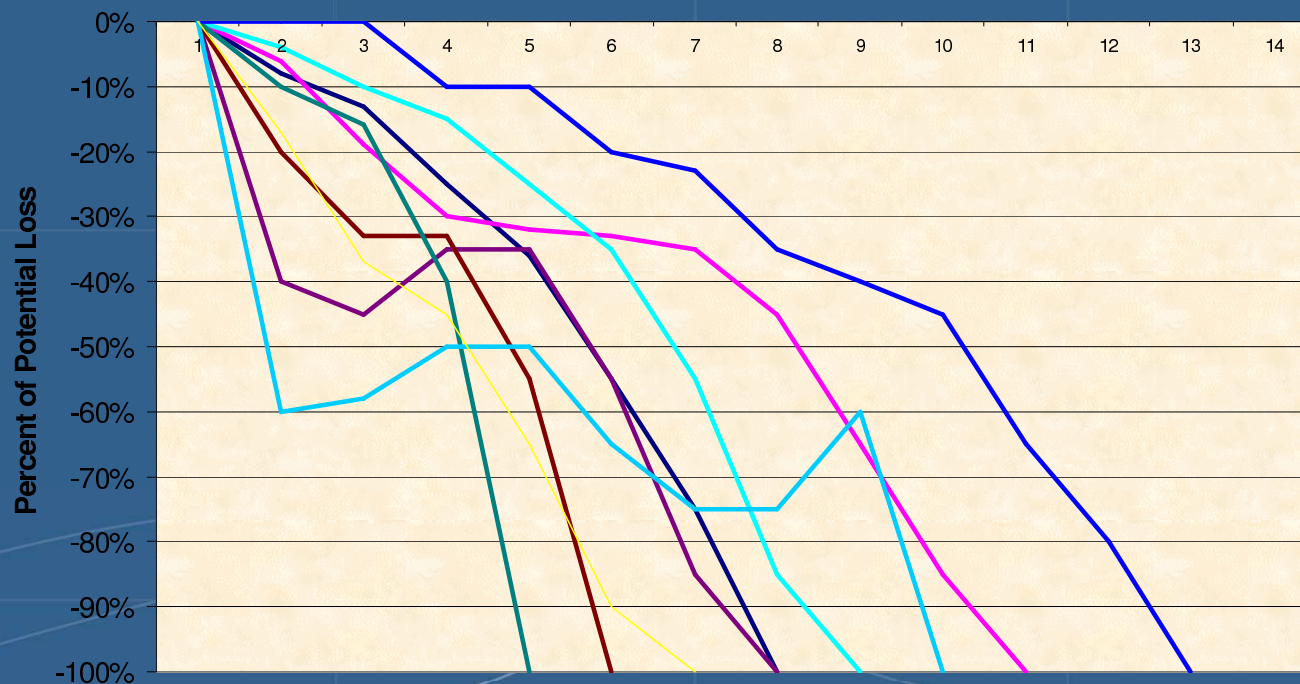
- Dashboard, Cube, Hammer or Circle?
- Martin and Power Critique
  - Nuclear Power Plant Control / NASA
  - Business Partner
- Celati's Dark Side of Risk Management
- CRO accountability
- Ability to pay attention - an exercise

# Persistence and Ductility

- Longer cash-flow horizon, more value
- Bend but don't break
- IT, metallurgy
- The process of Annealing

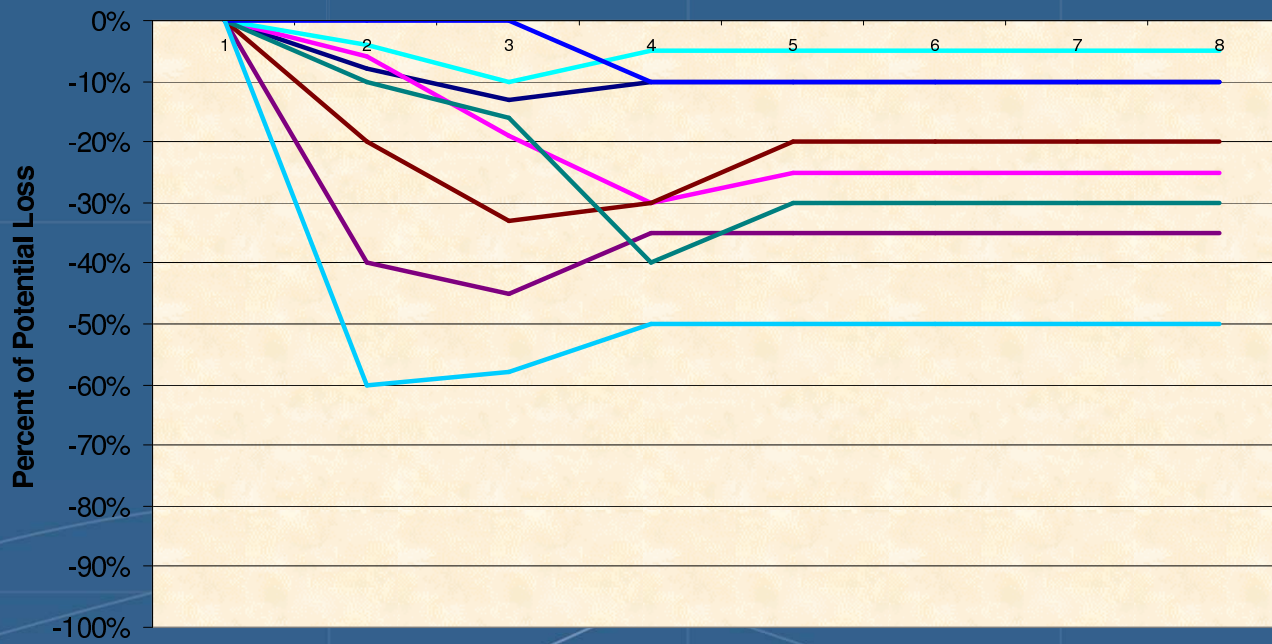
# Persistence and Ductility

The Path of a “Problem” in a Brittle System



# Persistence and Ductility

## The Path of a “Problem” in a Ductile System

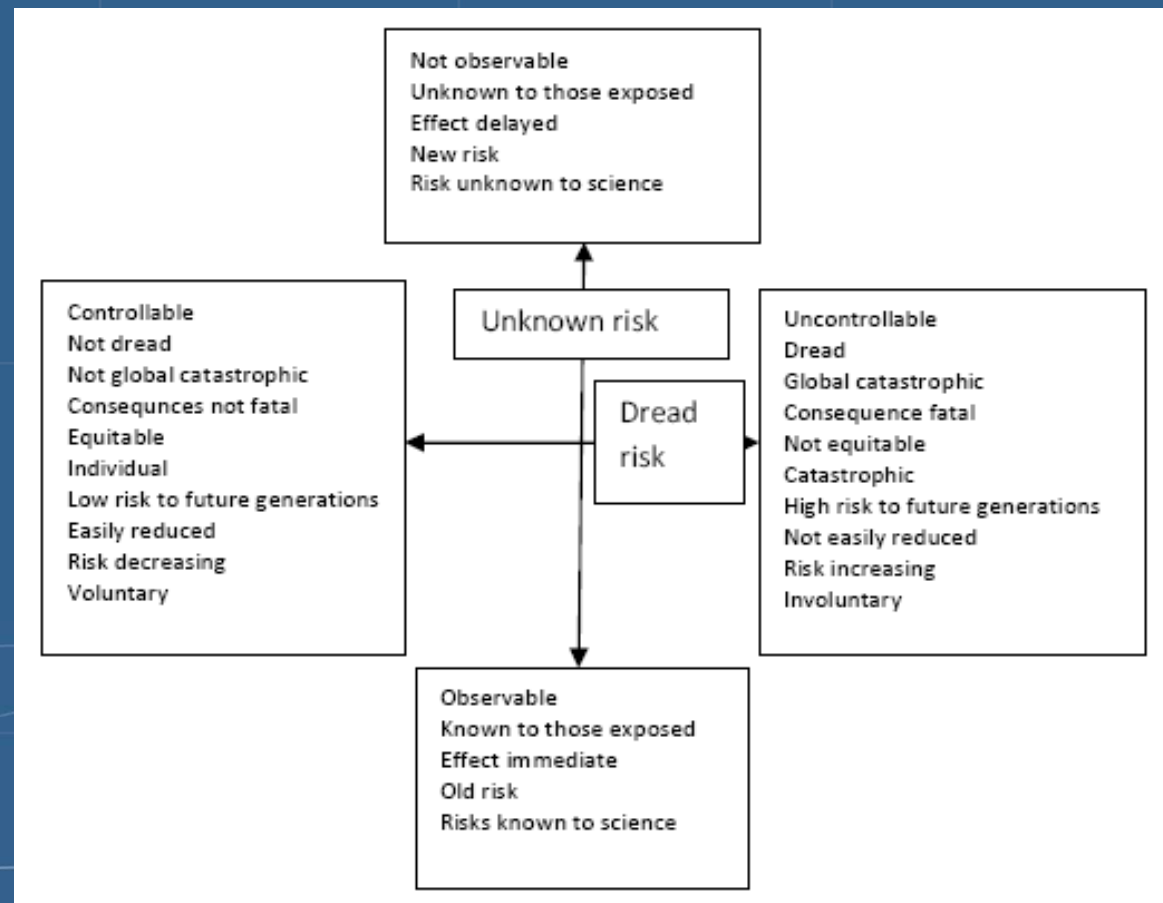


# Points of Brittleness

- “The Public”
  - Investors
  - Regulators
  - Customers
  - Liquidity Providers
  - Suppliers
- SARF

# Points of Brittleness

- SARF



# Points of Brittleness

- The Board
  - Shareholder proxy
  - Duty of Care
  - Duty of Loyalty
  - Authority Influence
  - Governance
    - NAB
    - Barings

# Tone at the Top

- PRMIA Governance Principles
  - Seven total
  - Found to be common across governance documents
    - Sufficient Competencies
    - Sufficient Resources and Process
    - Independence of Key Parties
    - Clear Accountability
    - Ongoing Education and Discernment
    - Disclosure and Transparency
    - External Validation



# Survey Results

- January / February 2008
- 65 firms, well-known, with established risk management programs
- 60% “largest” in their industry
- 77% in top 25% of their industry
- More than 25 industries represented
- 40% banking, most financial, significant non
- 72% CROs, 20% Other C-Level, 8% Board
- Supplemented with one-on-one interviews

# Tone at the Top – Survey Results

- Is there a direct involvement on the part of the Board in Risk Management?

| DOES YOUR RISK MANAGEMENT ORGANIZATION REPORT TO THE BOARD? |  | Response Percent | Response Count |
|---|--|------------------|----------------|
| Does not report to the Board                                |   | 22.4%            | 11             |
| Reports to the Board directly                               |  | 36.7%            | 18             |
| <b>Reports indirectly</b>                                   |  | <b>40.8%</b>     | 20             |

| IS THERE A SINGLE INDIVIDUAL ON THE BOARD WITH RESPONSIBILITY FOR BEING FAMILIAR WITH THE RISK MANAGEMENT ORGANIZATION OF THE FIRM? |  | Response Percent | Response Count |
|---|--|------------------|----------------|
| Yes   |   | 31.3%            | 15             |
| <b>No</b>   |  | <b>68.8%</b>     | 33             |

# Tone at the Top – Survey Results

- Is there a direct involvement on the part of the Board in Risk Management?

| DOES YOUR COMPANY HAVE A RISK MANAGEMENT POLICY? |  |  |  |  |  | Response Percent | Response Count |
|--|--|--|--|--|--|------------------|----------------|
| Yes  |  |  |  |  |  | 90.0%            | 45             |
| No   |   |  |  |  |  | 10.0%            | 5              |

|  | Strongly Agree | Agree             | Neutral   | Disagree  | Strongly Disagree | Response Count |
|--|----------------|-------------------|-----------|-----------|-------------------|----------------|
| The Board regularly reviews the risk management policy                               | 40.0% (18)     | <b>44.4% (20)</b> | 8.9% (4)  | 6.7% (3)  | 0.0% (0)          | 45             |
| The Board, as a whole, is sufficiently skilled to understand our RMO and its reports | 31.1% (14)     | <b>44.4% (20)</b> | 13.3% (6) | 11.1% (5) | 0.0% (0)          | 45             |

# Tone at the Top – Survey Results

- Which Board committee has responsibility?

## Range of Committees Present in Respondents' Boards

|              |       |
|--------------|-------|
| Audit        | 86.0% |
| Executive    | 56.0% |
| Nominating   | 40.0% |
| Governance   | 40.0% |
| Management   | 38.0% |
| Risk         | 26.0% |
| Finance      | 14.0% |
| Compensation | 6.0%  |
| Credit       | 4.0%  |

## Board Committee Having Primary Oversight Responsibility for Risk Management



|                      |     |
|----------------------|-----|
| Audit                | 31% |
| Risk                 | 17% |
| Management/Executive | 13% |
| Finance              | 4%  |
| Governance           | 4%  |
| Risk Policy Capital  | 4%  |
| Credit               | 4%  |
| BoD                  | 4%  |

## DOES THE CHIEF RISK OFFICER (CRO) OR PERSON RESPONSIBLE FOR RISK MANAGEMENT ALWAYS ATTEND MEETINGS OF THIS COMMITTEE?

|     |  | Response Percent | Response Count |
|-----|--|------------------|----------------|
| Yes |  | 81.6%            | 40             |
| No  |   | 18.4%            | 9              |

# Tone at the Top – Survey Results

- Education and Building Risk Awareness?

| HAS YOUR RISK MANAGEMENT ORGANIZATION HELD AN EDUCATIONAL SESSION FOR BOARD MEMBERS? |  | Response Percent | Response Count |
|--|--|------------------|----------------|
| Yes  |  | 63.0%            | 29             |
| No   |   | 37.0%            | 17             |





|  | Strongly Agree | Agree             | Neutral   | Disagree   | Strongly Disagree | Response Count |
|--|----------------|-------------------|-----------|------------|-------------------|----------------|
| We have a regular training program for new employees that includes a focus on the risk management policy | 13.3% (6)      | <b>37.8% (17)</b> | 13.3% (6) | 28.9% (13) | 6.7% (3)          | 45             |

|   | Strongly Agree | Agree             | Neutral    | Disagree  | Strongly Disagree | Response Count |
|---|----------------|-------------------|------------|-----------|-------------------|----------------|
| We regularly update our employees awareness of the risk management policy | 13.6% (6)      | <b>40.9% (18)</b> | 25.0% (11) | 18.2% (8) | 2.3% (1)          | 44             |

# Tone at the Top – Survey Results

- Validation of Governance Approach

| DO YOU USE AN OUTSIDE CONSULTANT TO BENCHMARK YOUR RISK MANAGEMENT ORGANIZATION PRACTICES AND INFRASTRUCTURE? |  | Response Percent | Response Count |
|---|--|------------------|----------------|
| Yes   |  | 45.7%            | 21             |
| No  |  | 54.3%            | 25             |

| PLEASE IDENTIFY ANY OF THE SOURCES BELOW THAT YOU USE FOR EXTERNAL BENCHMARKING: |  | Response Percent | Response Count |
|--|--|------------------|----------------|
| Industry reports and studies   |  | 89.2%            | 33             |
| Internal Audit   |  | 32.4%            | 12             |
| Regulators   |  | 54.1%            | 20             |
| Internal innovation and reporting  |  | 43.2%            | 16             |

# Survey Insights

- Board Check on CRO Independence
- Risk Culture Assessment
- Support of Risk Committee vs. Audit or Compensation
- Rapidly Evolving
- Risks in Communication
  - If 15% of the true meaning of a directive is lost at each level of the organization, then 4 levels down, only 50% remains

# Points of Brittleness

- Incentives and Compensation
  - Recent Calls
    - Fed Kroszner
    - Swiss Re Board
  - Misalignment
    - Cogs vs. Entrepreneurs
    - Til Schuermann study of sub-prime frictions
    - Risk-sensitive foraging

# Points of Brittleness

- Incentives and Compensation
  - The “Tone at the Top” – Authority Influence
  - Case studies
  - Sample alignments

# The Emergence of Psychology, Complexity and Ductility

- SARF
- Loss Avoidance
- Complicated vs. Complex Systems
- Emergence Theory
- Ductile Systems / Complex Adaptive Systems

# Changing our Sense of Value

- Under-appreciate the Value of Tail Risk
  - Loss Avoidance in firm valuation
- Impairment to Business Activities
  - Ratings
  - Liquidity
  - Customers
  - Regulators
  - Litigants

# Changing our Sense of Value

- The Tipping Point
  - Negative, ala SARF
- Freedom via Risk Awareness
  - Positive

# Changing our Sense of Value

|   | Strongly Agree | Agree             | Neutral           | Disagree          | Strongly Disagree | Response Count |
|---|----------------|-------------------|-------------------|-------------------|-------------------|----------------|
| The primary purpose of our RMO is for competitive advantage | 23.9% (11)     | <b>32.6% (15)</b> | 23.9% (11)        | 15.2% (7)         | 4.3% (2)          | 46             |
| The primary purpose of our RMO is for regulatory compliance | 8.7% (4)       | 26.1% (12)        | <b>28.3% (13)</b> | <b>28.3% (13)</b> | 8.7% (4)          | 46             |
| The primary purpose of our RMO is for loss avoidance        | 15.2% (7)      | <b>54.3% (25)</b> | 19.6% (9)         | 4.3% (2)          | 6.5% (3)          | 46             |
| The primary purpose of our RMO is for control               | 21.7% (10)     | <b>43.5% (20)</b> | 23.9% (11)        | 8.7% (4)          | 2.2% (1)          | 46             |
| The primary purpose of our RMO is for internal audit        | 0.0% (0)       | 13.0% (6)         | 23.9% (11)        | <b>43.5% (20)</b> | 19.6% (9)         | 46             |

# Thank You

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