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Integrated Risk Financing: Trends & Practical Applications

20th Annual TMA Conference

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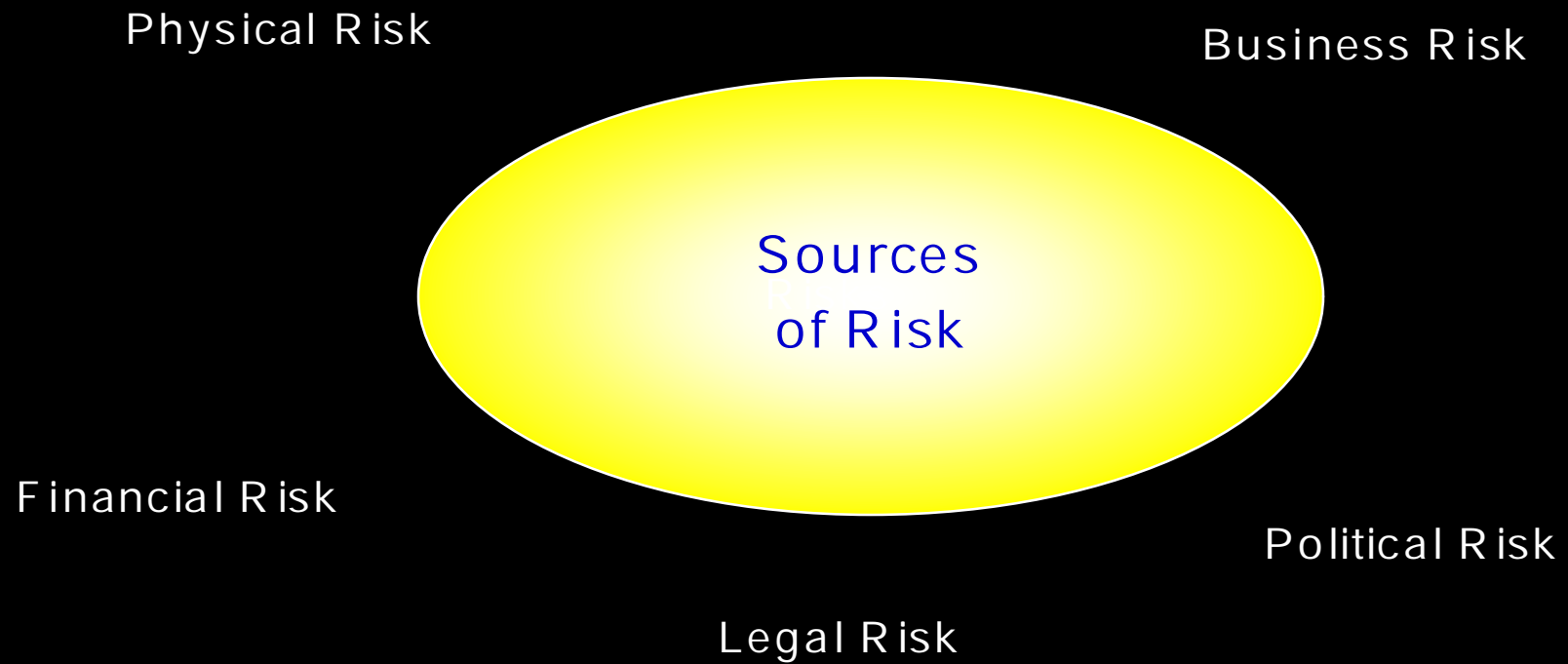
Tillinghast - Towers Perrin

Today's Discussion

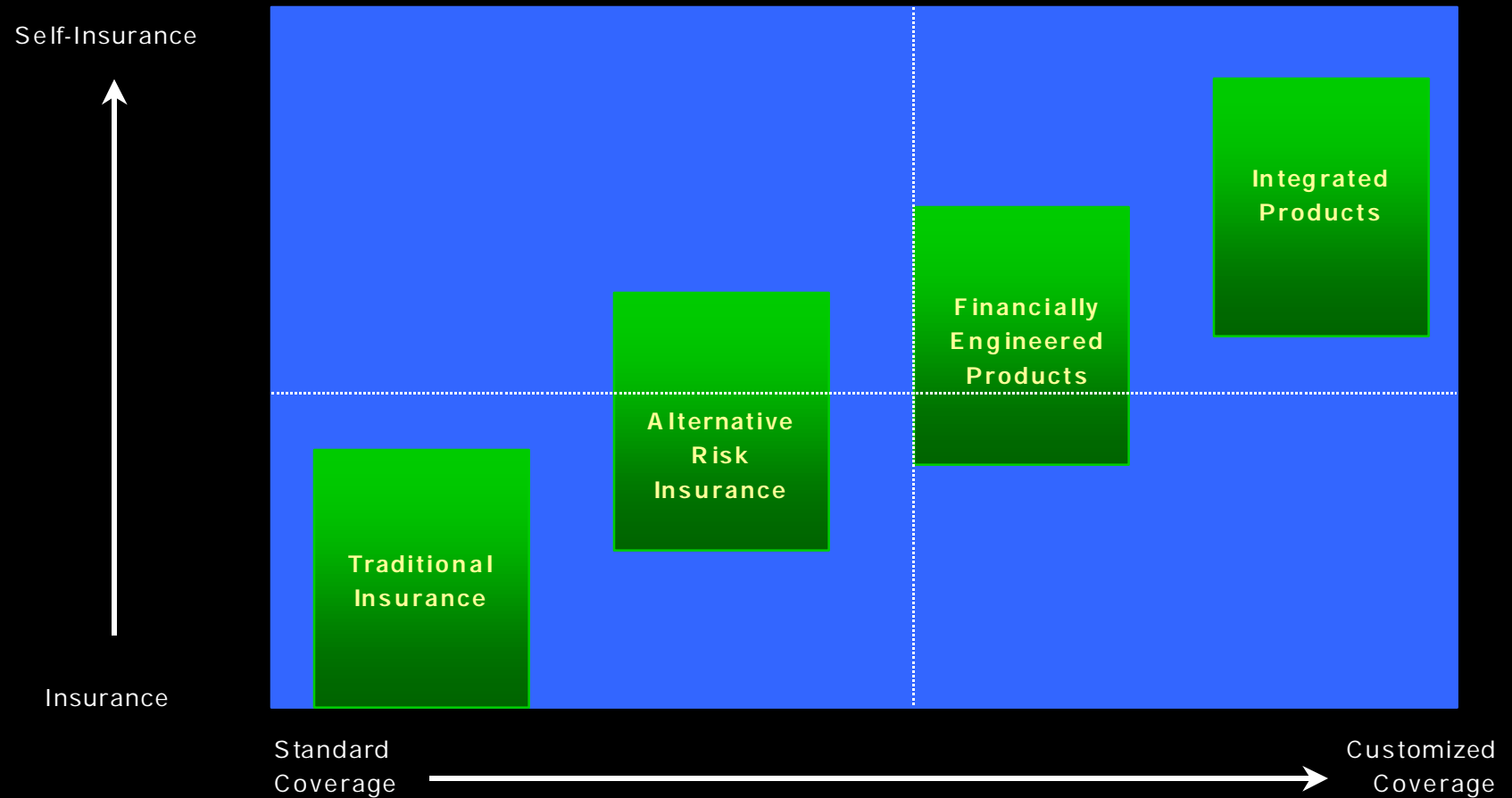
- Introduction
- Integrated Risk Financing
- Union Carbide - A Practical Case Study
- Ambitions versus Reality
- Q&A

Integrated Risk Financing

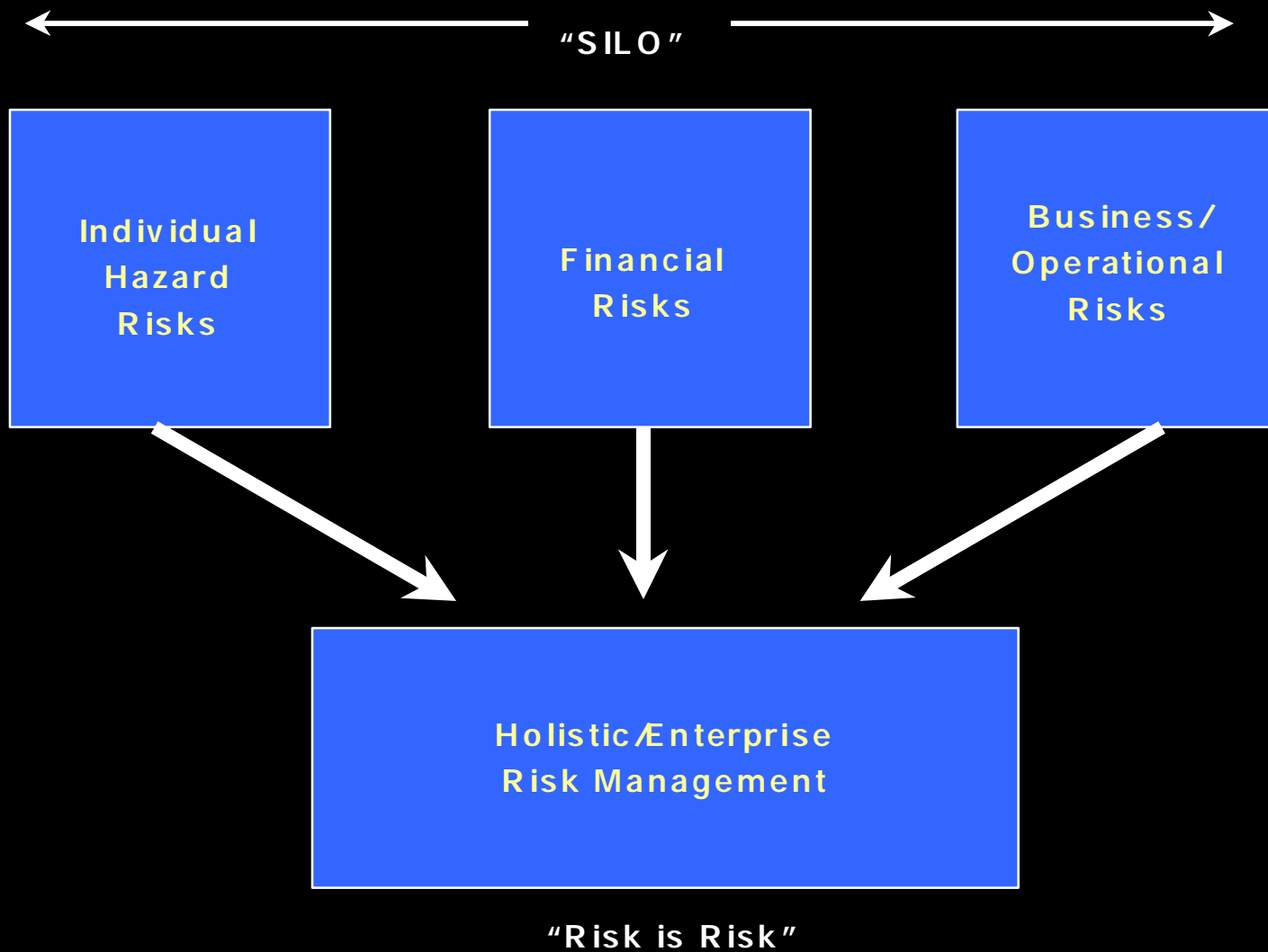
Risks arise from many sources. . .



Integrated Risk Financing is continuum. . .



Integrated Risk Financing has coincided with the evolution of risk management



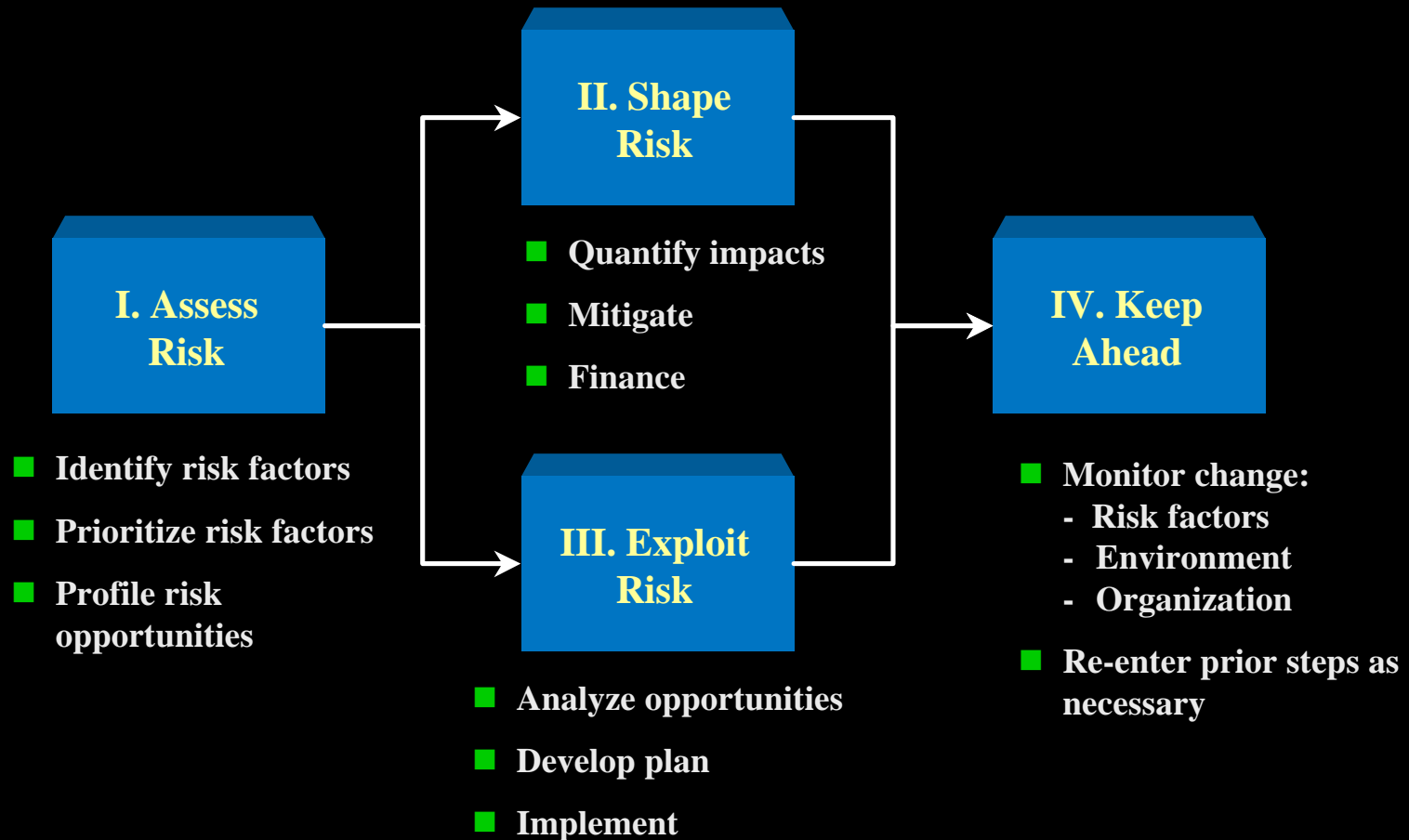
Integrated Risk Financing's objective is to enhance shareholder value by . . .

- Improving capital efficiency
 - providing an objective basis for allocating resources to problem solving
 - reducing expenditures on immaterial risks
- Supporting informed strategic decision making
 - uncovering areas of high potential adverse impact
- Making risk management part of the organizational culture
- Building investor confidence

What is Enterprise or Integrated Risk Management?

- ERM is a rigorous approach to identifying, prioritizing, quantifying, mitigating, and financing the risks from *all* sources that:
 - threaten the achievement of strategic objectives
 - present opportunities to exploit for competitive advantage

The ERM approach is straightforward



ERM risk assessment includes...

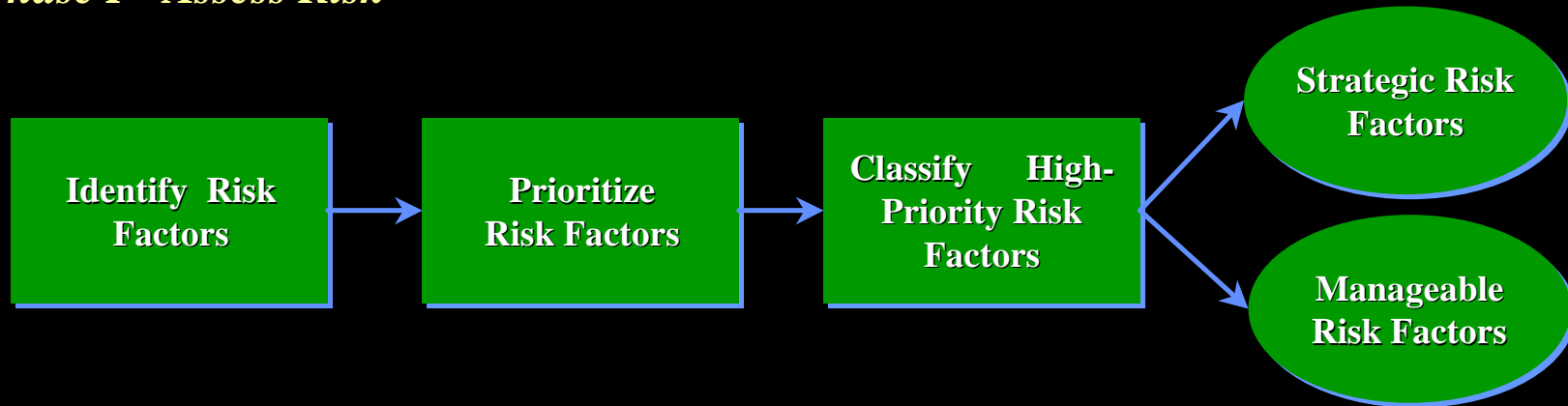
- Identifying material risk factors threatening the organization
 - from all sources
- Prioritizing the identified risk factors
- Classifying the high-priority risk factors in a way that implies appropriate remediation and impels action
 - based on the organization's understanding of the risk factor and its capabilities to respond

ERM risk shaping includes...

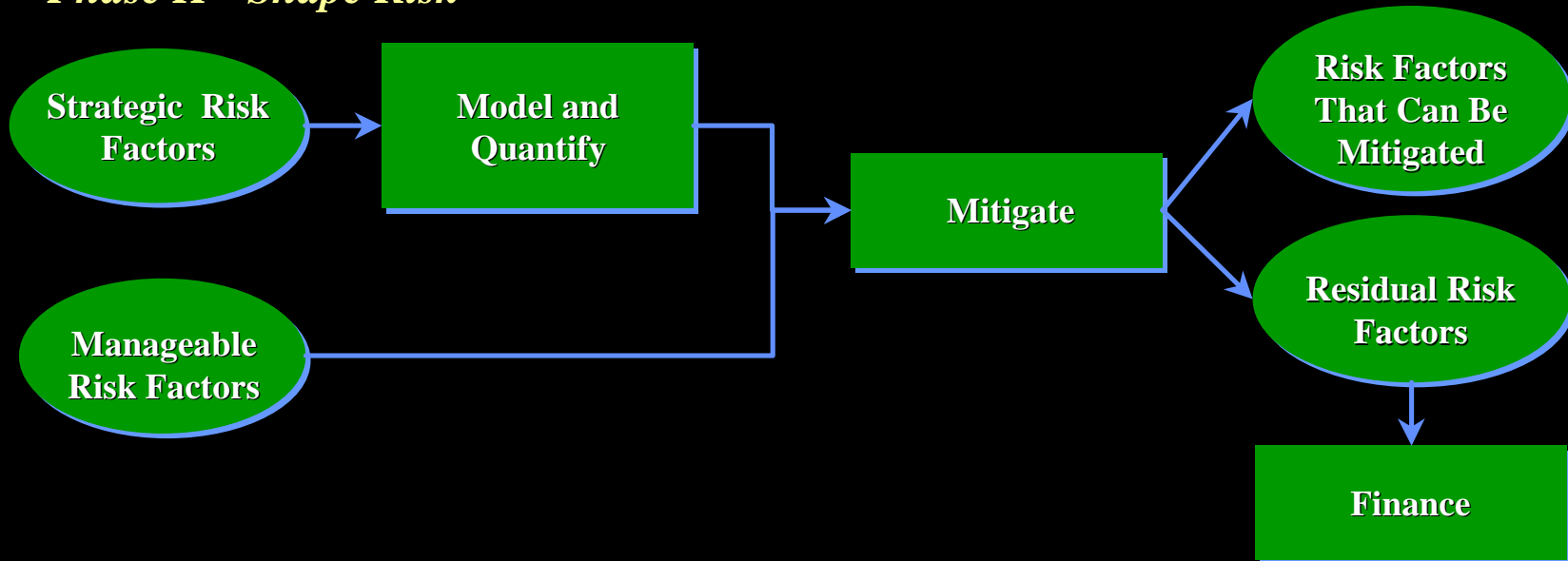
- Modeling and quantifying those risk factors that are material, high-priority and “strategic” (i.e., require large investment and/or change in direction)
- Mitigating the effects through the right balance of process and cultural controls
- Financing those risk factors that cannot be completely mitigated
 - using customized integrated products that exploit the portfolio effect of combining independent risks and natural hedges

A more detailed view of assessment and shaping

Phase I - Assess Risk



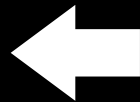
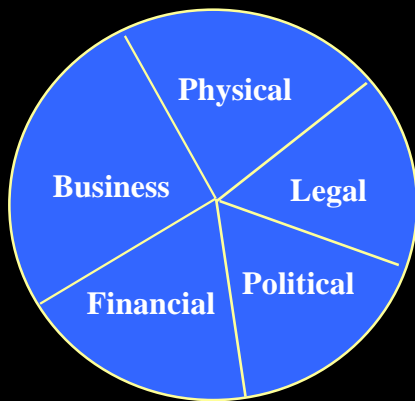
Phase II - Shape Risk



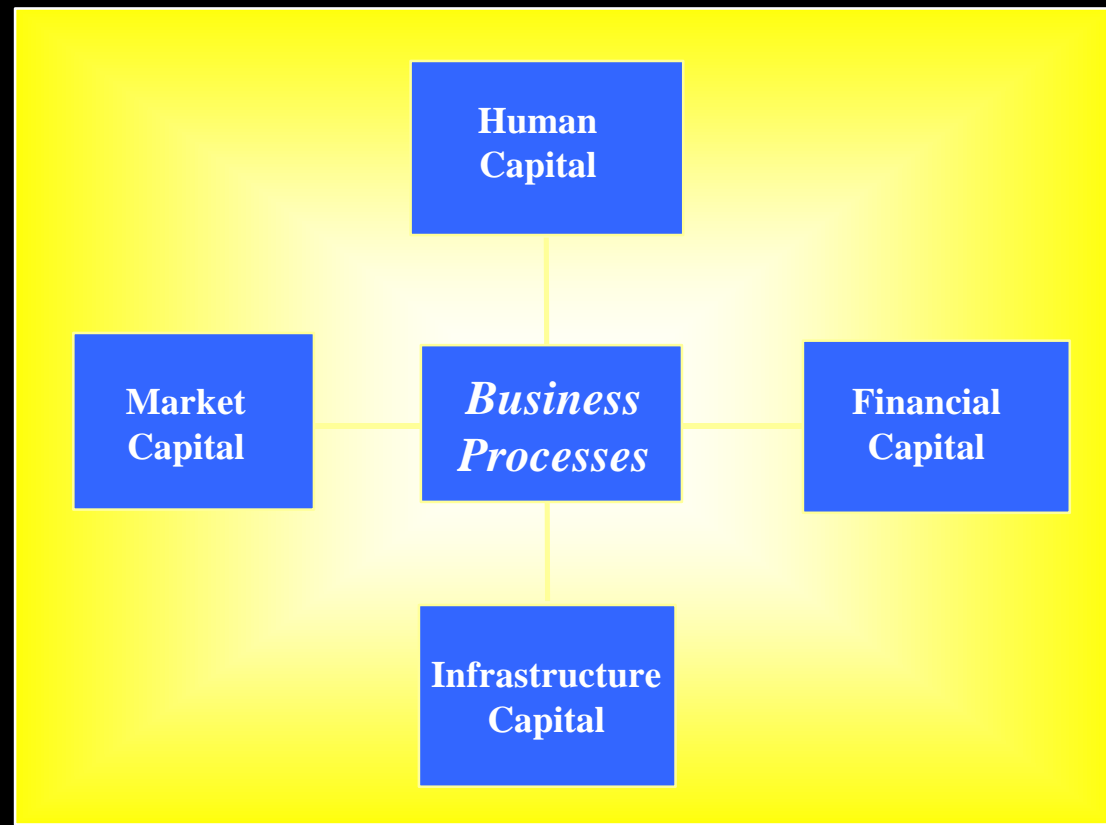
When identifying risk factors...

...start with the business, not a checklist of risks

RISKS



THE BUSINESS



When prioritizing risk factors...

...qualitative scoring is appropriate at this stage

| Risk Factors | Likelihood | Severity | Controls | "NPV" Scale 1 - Low 5 - High |
|---|------------|----------|----------|------------------------------------|
| A. STRATEGY | | | | |
| 1. Informal planning, process and communications allow surprises | H | H | L | 4.5 |
| 2. Market share and earning objectives are not aligned | H | L | L | 3.0 |
| B. GROWTH | | | | |
| 1. Infrastructure is increasingly strained; will be difficult to retain culture and values with the changes that growth demands | H | H | L | 4.5 |
| 2. Increased size creates more opportunity for mistakes | M | L | M | 2.0 |
| C. COMPANY REPUTATION | | | | |
| 1. Pressure to make numbers may prompt behavior that will impair company's credibility with financial markets | M | H | H | 3.5 |
| 2. Adverse publicity (e.g., business practices, ethics) can affect image across multiple brands | L | H | H | 2.5 |
| D. HUMAN RESOURCES | | | | |
| J. SYSTEMS | | | | |

When classifying risk factors...

...use a scheme that implies action

“Manageable” Risk Factors

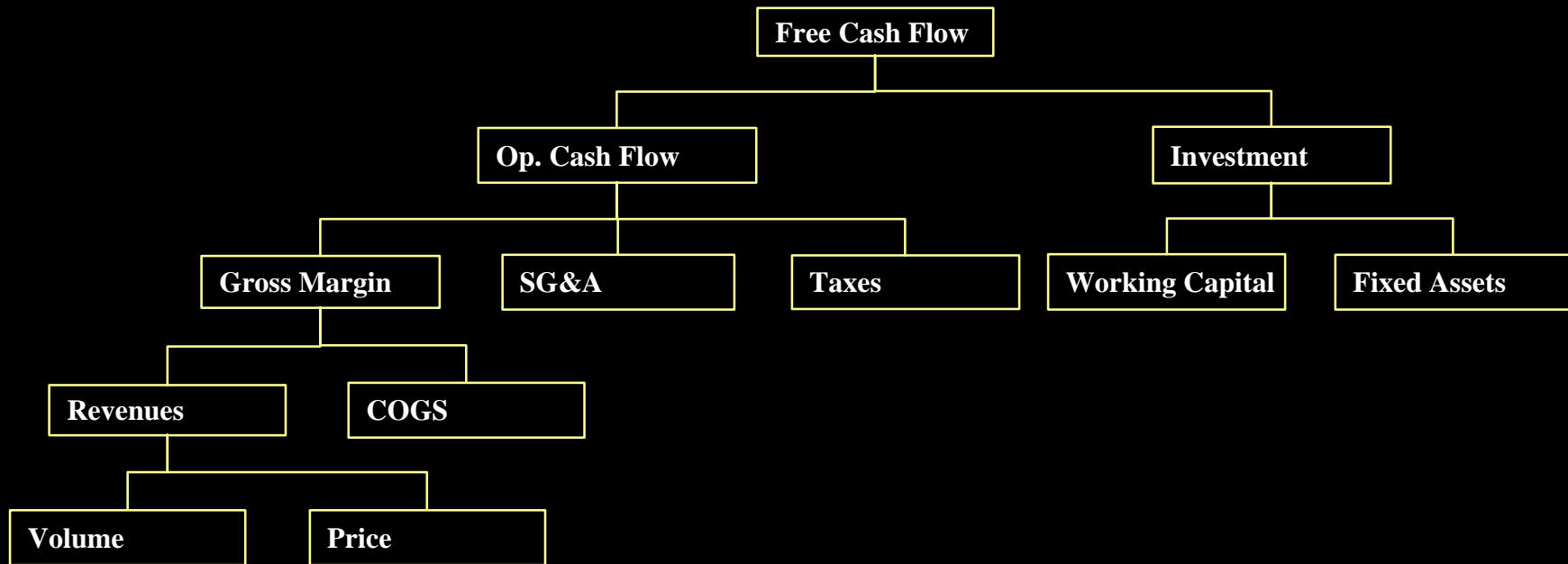
- **Known environment**
- **Capabilities and resources on hand to address**
- **Fell between the cracks?**
- **Just get on with it**

“Strategic” Risk Factors

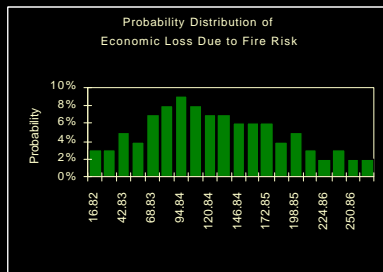
- **Unfamiliar territory**
- **Capabilities or resources may not be in place**
- **Major change in market or business**
- **Requires allocation of capital or shift in strategic direction**

When modeling/quantifying risk factors. . .

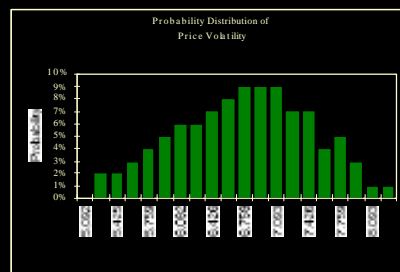
...link to relevant financial measures



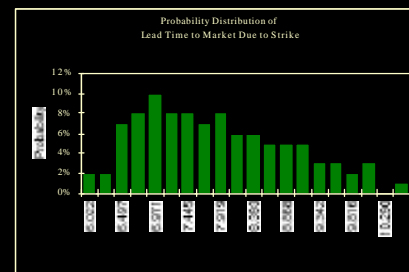
Fire Risk



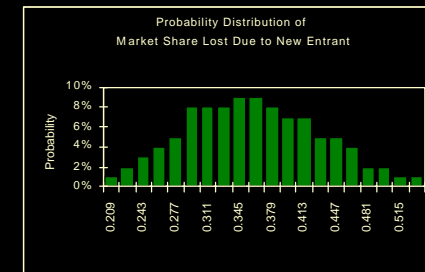
Financial Risk



Distribution Channel

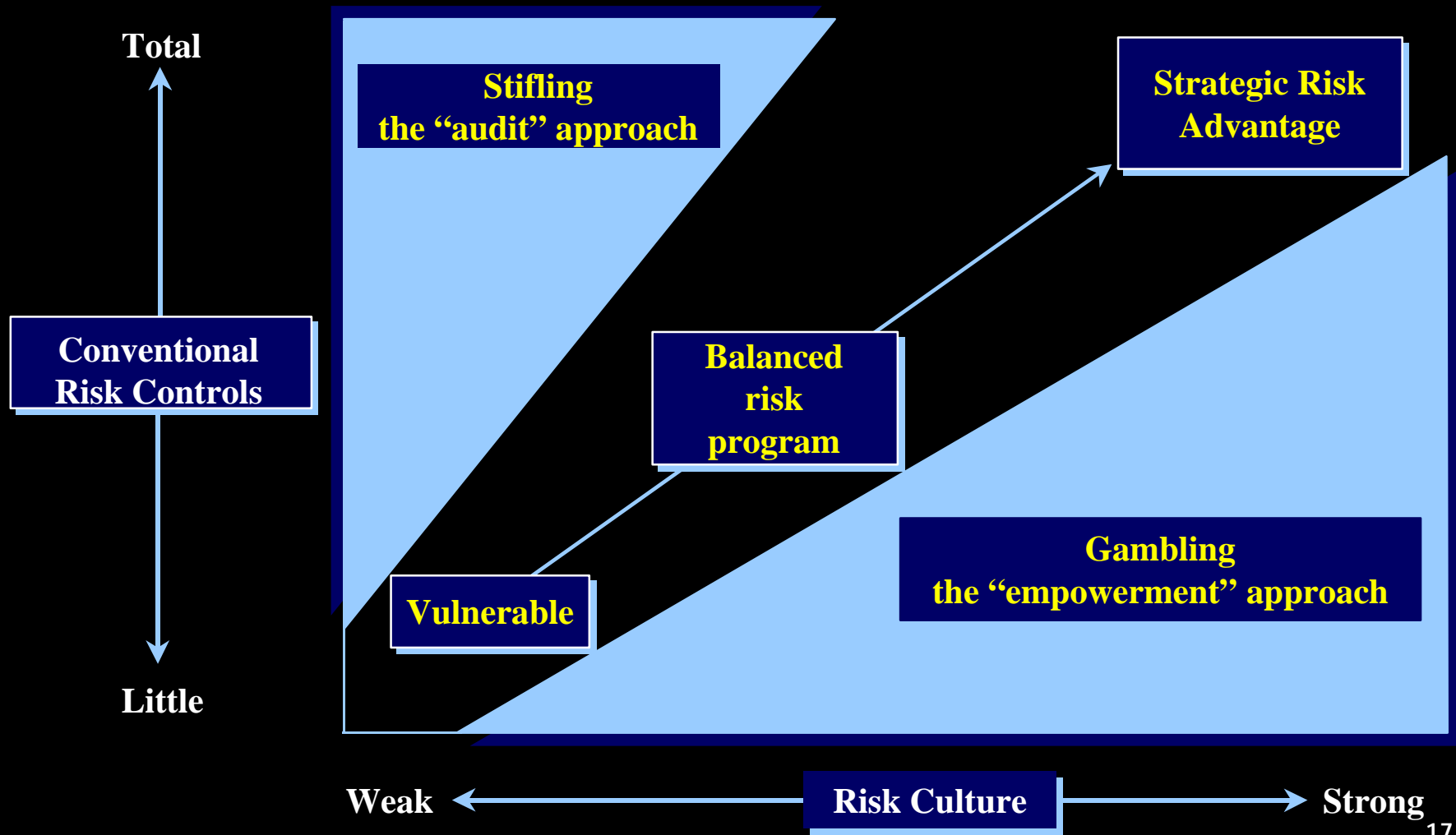


Business Risk



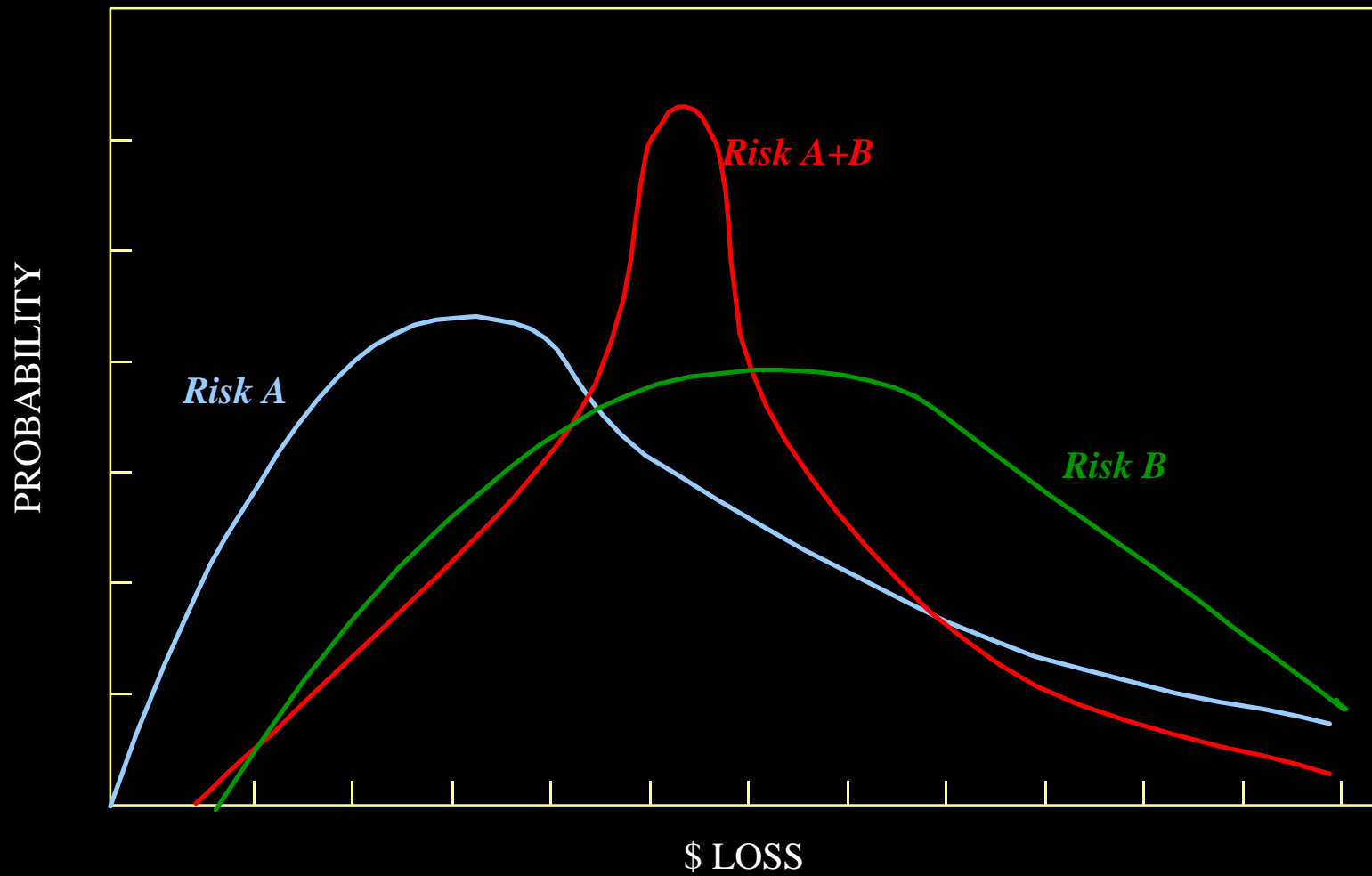
When mitigating risk factors. . .

...strike the appropriate balance

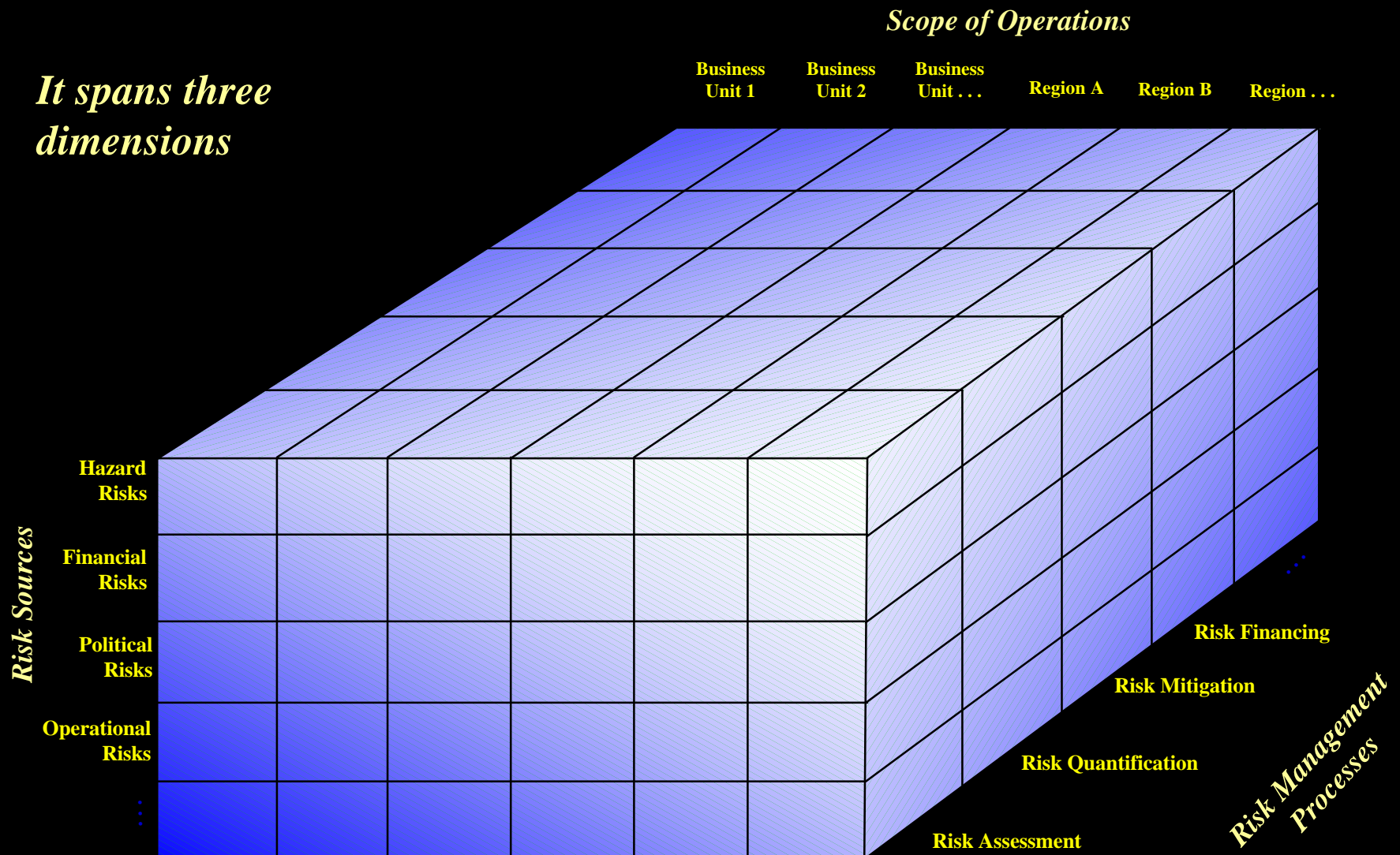


When financing risk. . .

...exploit the “portfolio effect”

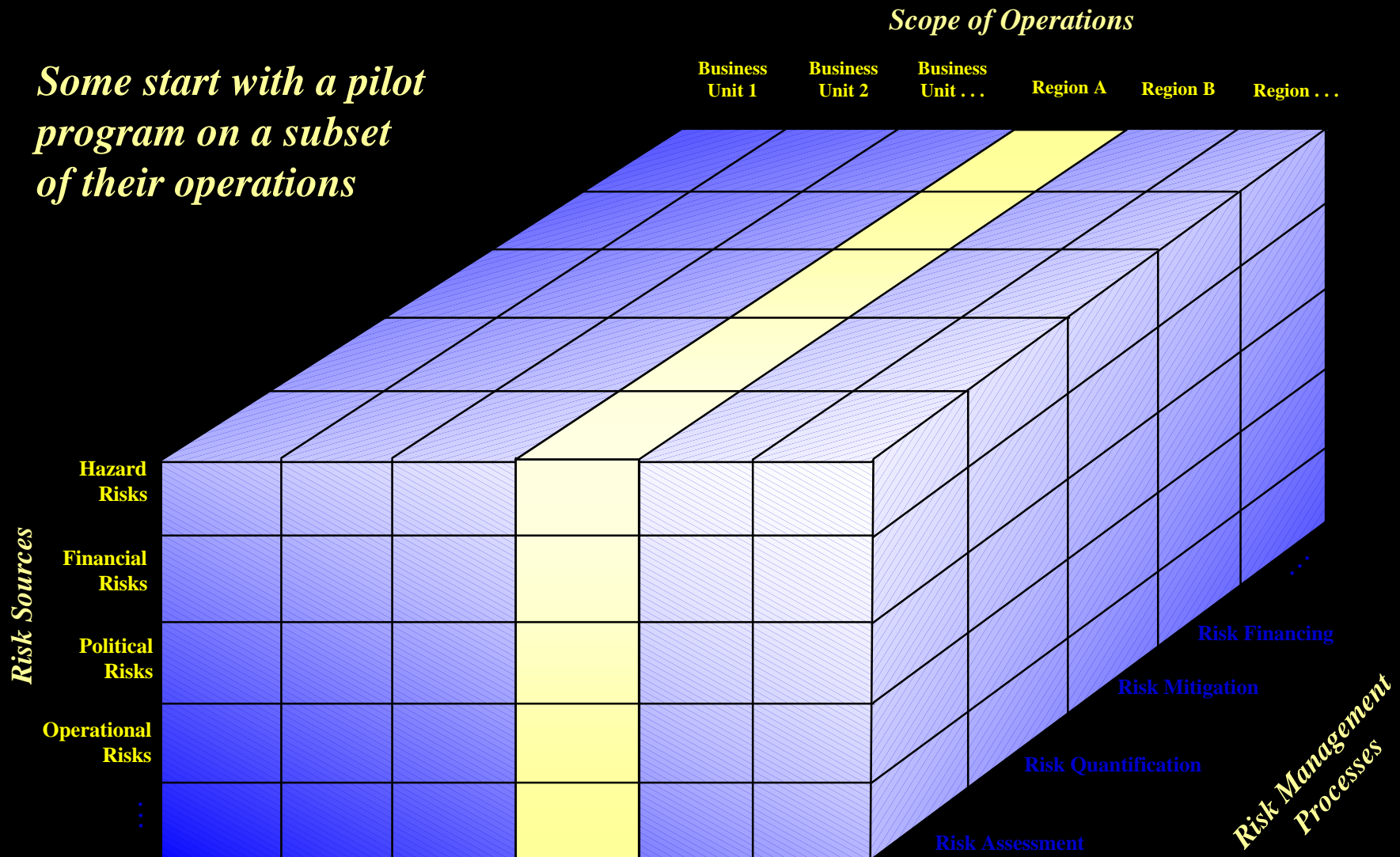


The universe of ERM is quite large. . .



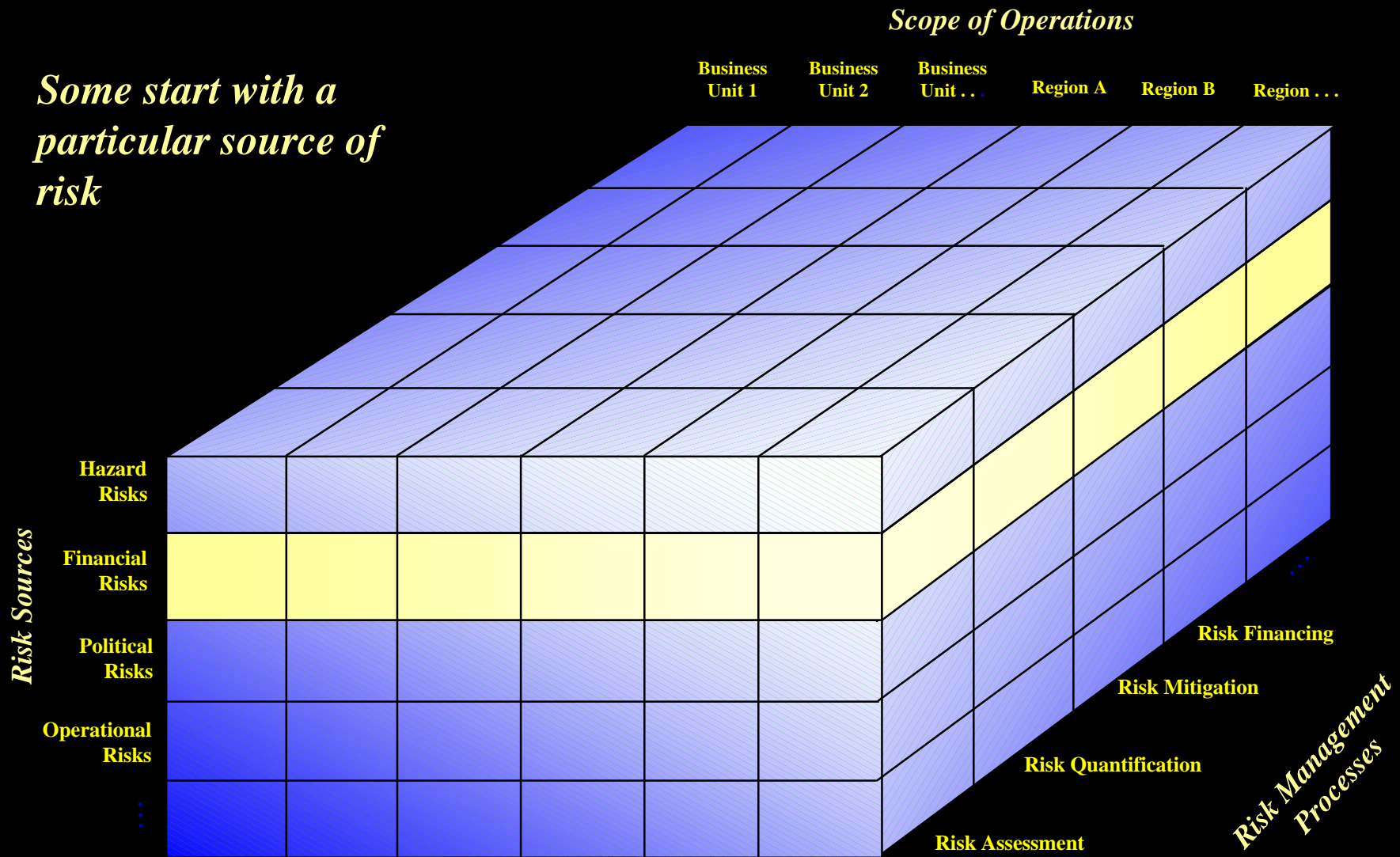
... so companies have started small

Some start with a pilot program on a subset of their operations



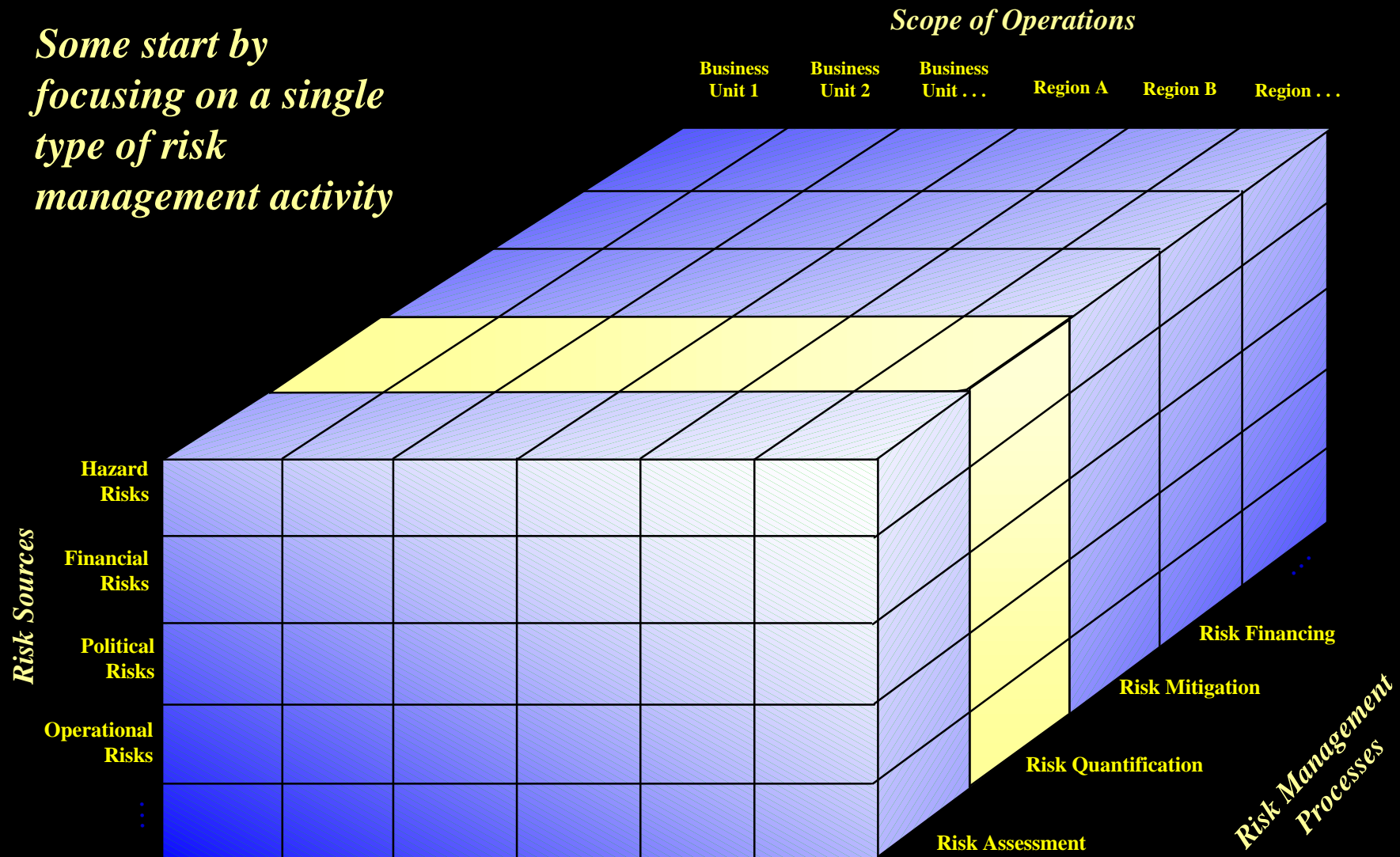
...so companies have started small

Some start with a particular source of risk



... so companies have started small

Some start by focusing on a single type of risk management activity



Union Carbide: A Practical Case Study

Conventional Insurance

- Annual
- Separate Coverage Placements
- Duplicative Limits
- No credit for favorable results

Integrated Risk Financing

- Multiple Risk Sources/Coverages
- Multi-Year
- Guaranteed Cost
- Specific Limit
- Rewarded for Favorable Experience
- Risk Aggregation Is Manageable

Integrated Risk Financing

■ ADVANTAGES:

- Reduced Costs (Long Term)
- Less Administration
- Customized for Client
- Closer Interaction with Markets
- Improved Integration of Risk Management Philosophy within Organization

Integrated Risk Financing

■ DISADVANTAGES:

- More Work to Investigate/Implement
- More Costly (Short Run?)
- Interaction with Other Departments/Operations is Necessary

Integrated Risk Financing

■ Risk Assessment

- Our Risk
- Our Risk vs. The Industry

■ Risk Quantification

- Forecasting
- Risk Retention vs. Transfer
- Risk Portfolio

Hazard and Operational Risks Included:

- Property Damage
- Boiler and Machinery
- Business Interruption
- Products Liability
- Public Liability
- Pollution

Integrated Risk Financing

- Initiated Program July 1, 1995 for 3 Year Term
- Capital Commitment - \$200 Million (3 Years)
 - Limits per Incident:
 - \$25 Million per Risk
 - \$50 Million Combined
 - Limit per Year:
 - \$100 Million
- Swiss Re via Insurance Subsidiary

Integrated Risk Financing

- Effective July 1, 1998:
 - Program Extended for 2 Years
 - Additional Risks added:
 - Employment Practices Liability
 - Directors/Officers Liability
- Commodity/Feedstock Risk Assessed and Quote for Incorporation Provided
- FX Risks will be Re -Examined for Inclusion

Integrated Risk Financing

- Platform for Evolving Risk Financing Strategies
- Adaptable
- Client Driven
- Client Customized

Strategic Benefit Financing

- Using alternative risk financing methods to align benefit financing with the overall financing strategy of the company
- DOL ruling in favor of Union Carbide

Ambitions versus Reality

Reality: the evolution continues

Process:

- Companies are embracing principles of Enterprise Risk Management
- Sophisticated models are being developed/refined to better understand Risk and the correlations between different risk
- According to "1998 RIMS Benchmark Survey" 16% of respondents said they expect to consider using capital market techniques in the next two years

Reality: the evolution continues

Product:

- Products to date have not been widely accepted due to lack of capacity, pricing and cultural barriers
 - Examples include:
 - Multi line/Multi Year
 - Dual Trigger with embedded financial coverages
 - Earnings per share covers

Continued

Reality: the evolution continues

Product:

- Positive trend is broader acceptance of securitization
 - To date capital markets have accepted
 - Property Catastrophe Risk
 - Residual Value Risk
 - Credit Default Risk
 - Life Insurance Acquisition Costs

Continued

Reality: the evolution continues

Market:

- Convergence of Financial Service entities bringing together under one roof expertise in
 - Insurance Underwriting
 - Commercial Banking
 - Investment Banking
- Major players have set up specialized units to offer customized products utilizing their own balance sheets and tapping capital markets for capacity

Q & A
