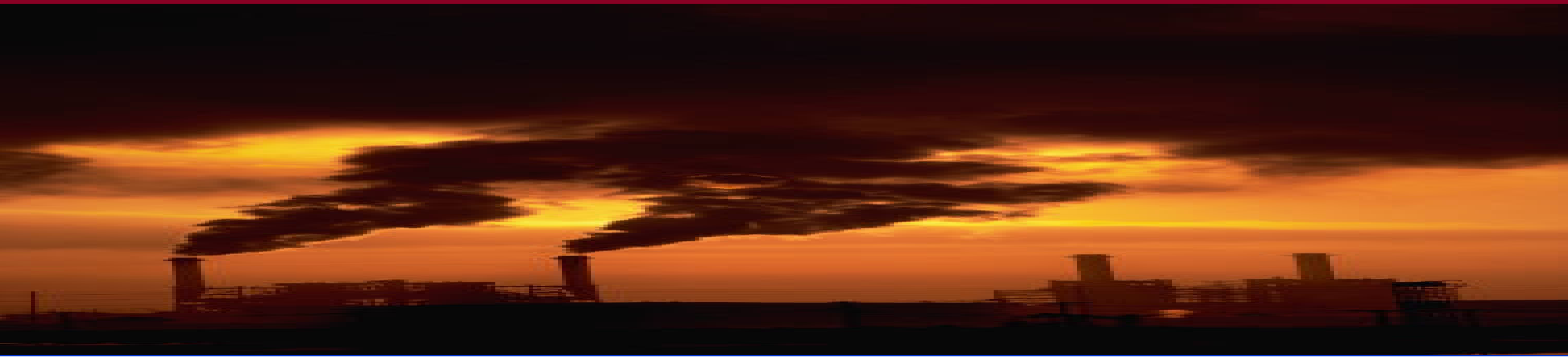
Asia
Risk Accounting



Business Continuity Planning; Financial impact analysis and the role of insurance.

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Summary

- Overview
- Quantification of Exposures
- Tie Up with BCP
- Case Study
- Risk Financing
- Role of Insurance

Overview

1. In developing an effective Business Continuity Plan risk professionals need to understand more about the financial impact of the interruptions they are trying to address and the role that insurance can play in the process.
2. In addition often risk managers need to justify capital expenditure on BCP projects, the ability to communicate through financial impact analysis is crucial.
3. With an increasing focus on good corporate governance, management needs to demonstrate a thorough understanding of the financial exposures faced by their business to prove that they have discharged their obligations in regard to the appropriate treatment of these exposures.

Overview (cont'd)

Over time the number of catastrophes, natural and man made, has been showing a discernable upward trend.

In 2004 there were 116 natural catastrophes and 216 major man made loss events. Total losses were in excess of US$123b, of this insured losses accounted for only US$49b or less than 40%

Asia accounted for approximately 50% of losses by number but less than 25% of the insured losses. (Swiss Re).

Conclusion: Scope for improvement in the roles of both BCP and Insurance in Asia?

Via An Effective BCP & Insurance Program

The Loss Flowchart

Major Loss

Risks Are Addressed
- No Impact on Profits
- No Impact on Retained Earning
- Dividend Flow Unaffected
- Analysts/ Shareholders Remain Supportive

Risks Not Addressed
- Loss of Revenue Increased Costs
- Reduced Earnings
- Reduced Dividend
- Class Action Reduced Share Price

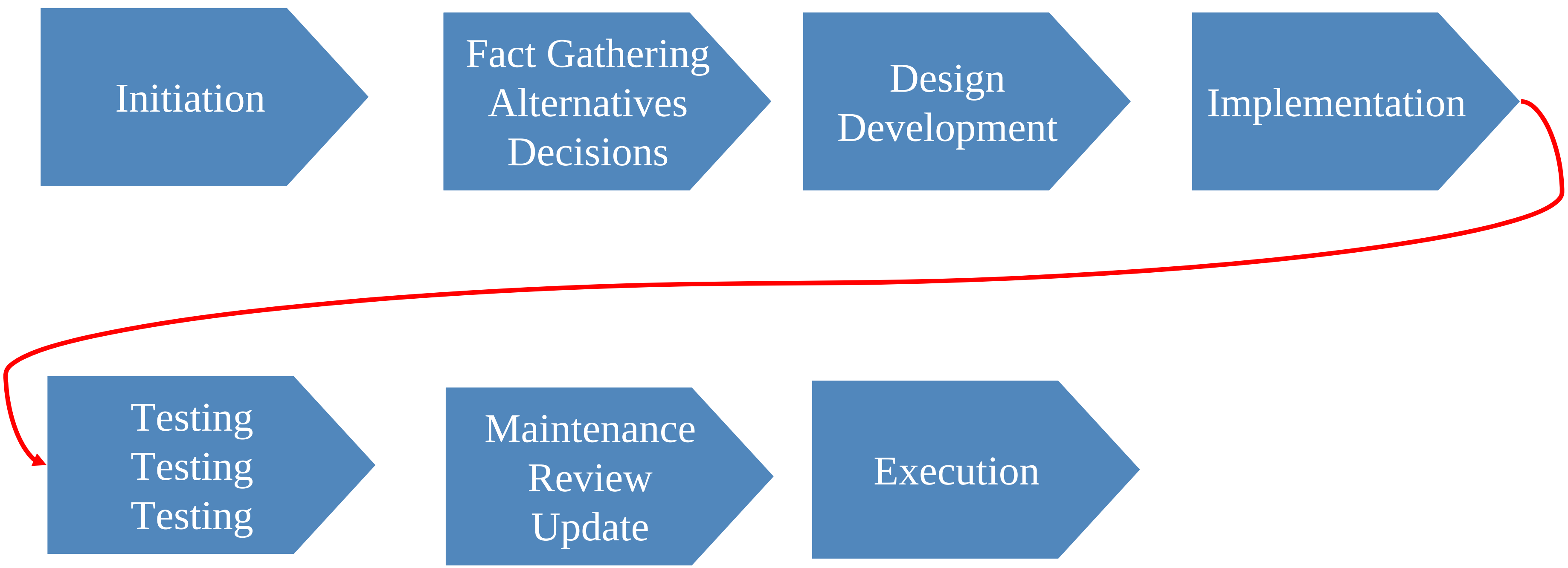
Financial Quantification

Understanding the financial impact of loss exposures is an important step in how a business evaluates and mitigates exposures through the risk identification, evaluation and mitigation process in what is ultimately a cost/benefit decision that relies on the ability of the organisation to accurately quantify risk exposures.

Provides the tool to analyse:

- Business Impact Analysis – Revenue and Cost exposures
- Risk driven Capital Expenditure investment projects
- Cost of Loss Mitigation Plans

Seven Stages of BCP



Source: DRI International

Focus – Fact Gathering, Alternatives, and Decisions by Management

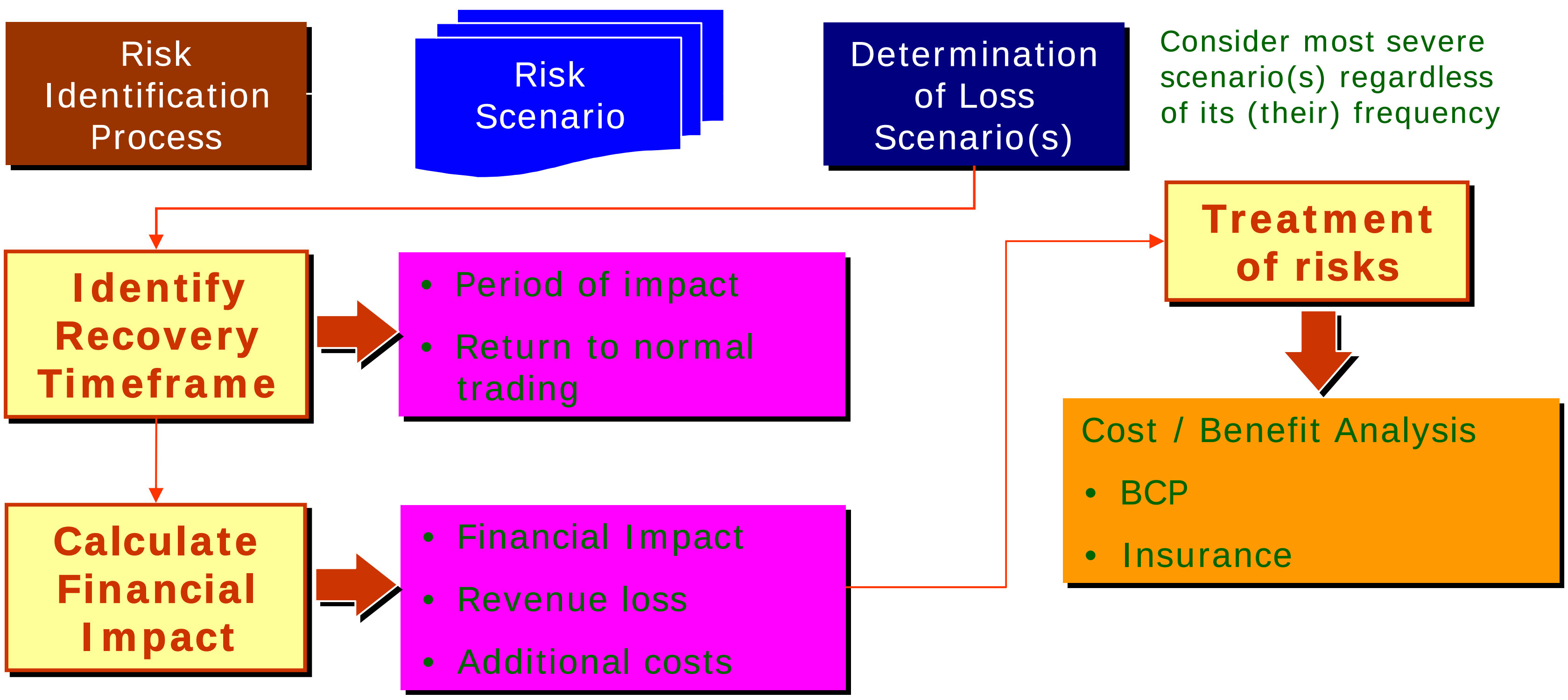
Role of Financial Impact Analysis to:

- Risk Analysis (RA) and Controls
- Alternative Business Continuity Strategies
- ✓ Business Impact Analysis (BIA)
- ✓ Cost-Benefit Analysis and Selected Strategies
- ✓ Business Continuity Program Budget

Source: DRI International

Calculate financial impact

Quantifying the financial impact of the Loss Scenario(s).



Financial Quantification

Focus is upon quantifying the financial impact of interruption upon:

- Gross Revenue / Insurance Gross Profit
- Additional costs to mitigate the interruption including:
  - Temporary premises
  - Other costs

Case Study

Electricity Distributor

Immature Risk Management

No understanding of impact of risk exposures
upon business or the ability to mitigate these interruptions

Identified the following major loss exposures

1. Earthquake; widespread damage to buildings, control centre, sub-stations, distribution network
2. Typhoon; widespread damage to distribution network
3. Suppliers exposure; damage to generator supplying electricity,
4. Customer exposure; damage to a customer business

Loss Scenarios - Earthquake

- Physical & Business Impact - possibly destroy buildings including communications tower and heavily damaging the radio room, destruction of the control room and damage to several major substations, distribution lines and poles
- BI Quantification - interruption period (up to 77 days) and business impact (loss of revenue from 50% down to 5% by day 77) identified in the sensitivity analysis a loss of Gross Profit value of approximately US$46m is identified

Loss Scenarios - Typhoon

- Physical & Business Impact - Super Typhoon causing wind and flood damage to the distribution network including distribution points, substations, distribution lines, transformers and result in the inability to supply power to customers over a widespread area
- BI Quantification - interruption period (up to 35 days) and business impact (loss of revenue from 30% down to 6% by day 35) identified in the sensitivity analysis a loss of Gross Profit value of approximately US$20.5m is identified

Loss Scenarios – Supplier Exposure - Generator

- Physical & Business Impact - loss of one of the electricity suppliers (generators) as a result of damage to the suppliers generating business
- Impact would be that during peak times we would need to purchase the 460MW from supplier (B) at a cost of US$00.10 per KWH (actually difference between (A) and (B)) plus pay a penalty of say US$00.025 per KWH, i.e. 450,000 x 12 x US$00.10 + 450,000 x 12 x US$00.025 = US$540,000 + US$135,000 = US$675,000/day

Loss Scenarios – Customer Exposure

- Physical & Business Impact - The loss of one of a significant customer as a result of damage suffered by the customer
- BI Quantification - The potential impact on a monthly basis of the loss of one of these significant customers is in the region of US$5,000,000/month

Case Study – Deliverables

- Quantified loss of Gross Revenue and Additional Costs based on Loss Scenarios
- Communicated exposures to Company Board via presentation
- Enabled risk management to achieve the approval of a number of risk management focussed capital expenditure items immediately
- Provided company with ability to approach insurance market as a knowledgeable buyer

Treatment of Risk Exposures

After determination and evaluation of a risk is made and management has understood the risk exposures it will be in a position to address these risks via a risk management technique or combination of techniques, identified to minimise the frequency and/or severity of possible interruptions.

These techniques may include risk transfer by the purchase of insurance, risk avoidance, loss prevention, loss reduction, training etc

What risk to retain, what to transfer

There are two main sources of capital available to finance risk exposures:

1. Shareholder capital, which must be retained in instruments that are sufficiently liquid so that it may be accessed, without delay, in any crisis situation. Unfortunately, such instruments typically provide very low returns.
2. Transfer techniques, such as insurance, whereby a premium is paid up front in return for funds to cover losses when they occur. These techniques have the additional advantage of potentially providing both balance sheet protection and income smoothing.

In summary, the issue of funding risk exposures comes down to accessing the correct amount and mix of shareholder and other capital at the lowest cost.

Risk Financing

The main argument for including insurance and other risk financing techniques in entity’s capital framework is that these techniques offer an additional pool of risk capital that may be accessed by beyond that available from shareholders.

Due to the diversification and pooling benefits available to the sources of insurance capital, the cost per unit of insurance will likely be less than that of shareholder capital.

This cost advantage is reinforced by taking into account the opportunity cost, in terms of lost revenue, of using shareholder capital to fund operational risk.

Risk Financing (cont'd)

The main argument for including insurance and other risk financing techniques in entity's capital framework is that these techniques offer an additional pool of risk capital that may be accessed by beyond that available from shareholders.

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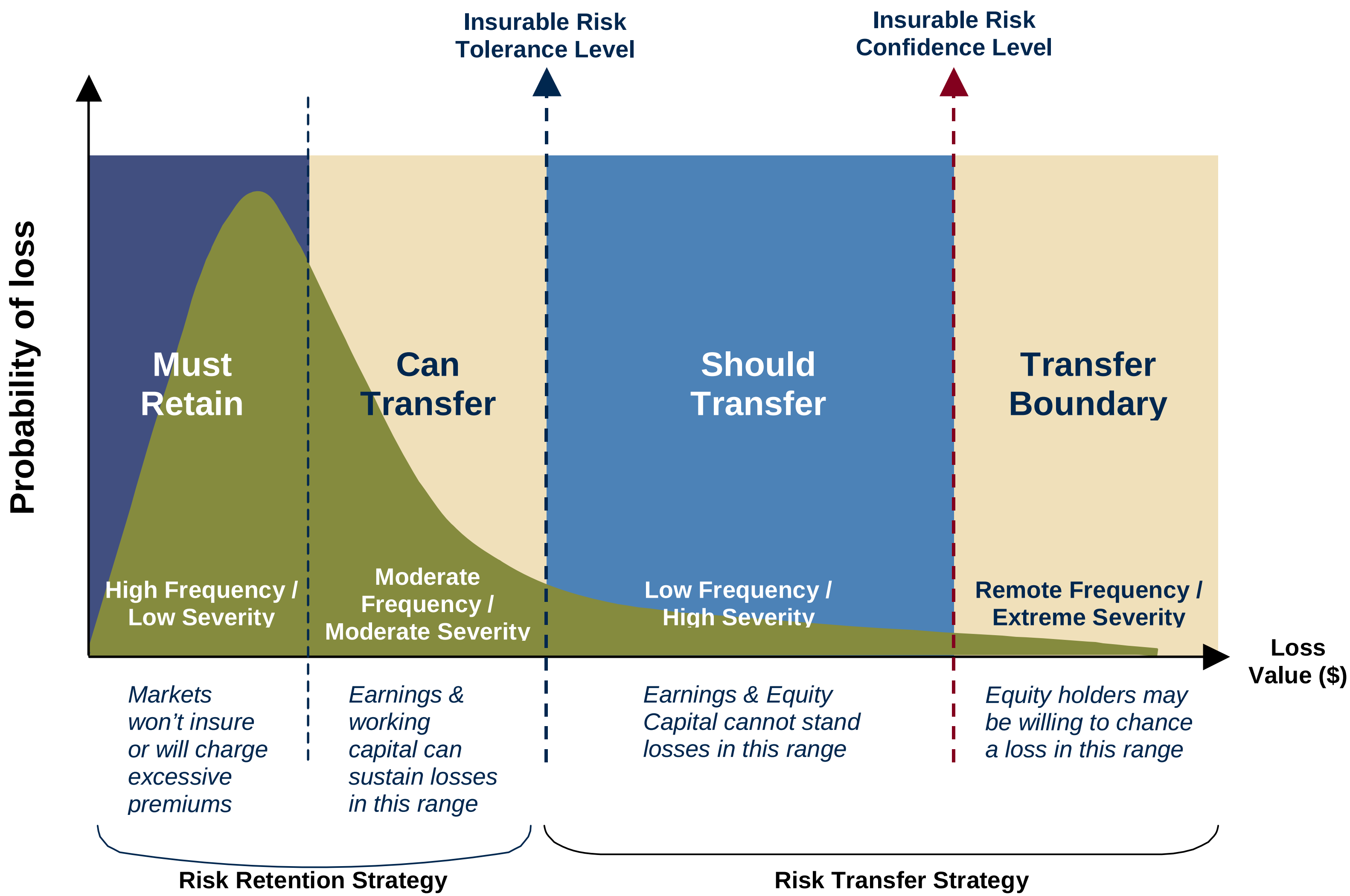
Risk Financing (cont'd)

Therefore using shareholder capital to address significant exposures is inefficient as it commits significant liquidity that would be better invested in the business to provide the business wide returns on equity expected by shareholders.

Insurers on the other hand provide capital to address these risks, via insurance, more efficiently as a result of their ability to diversify, manage and pool capital.

Insurance Decision Framework

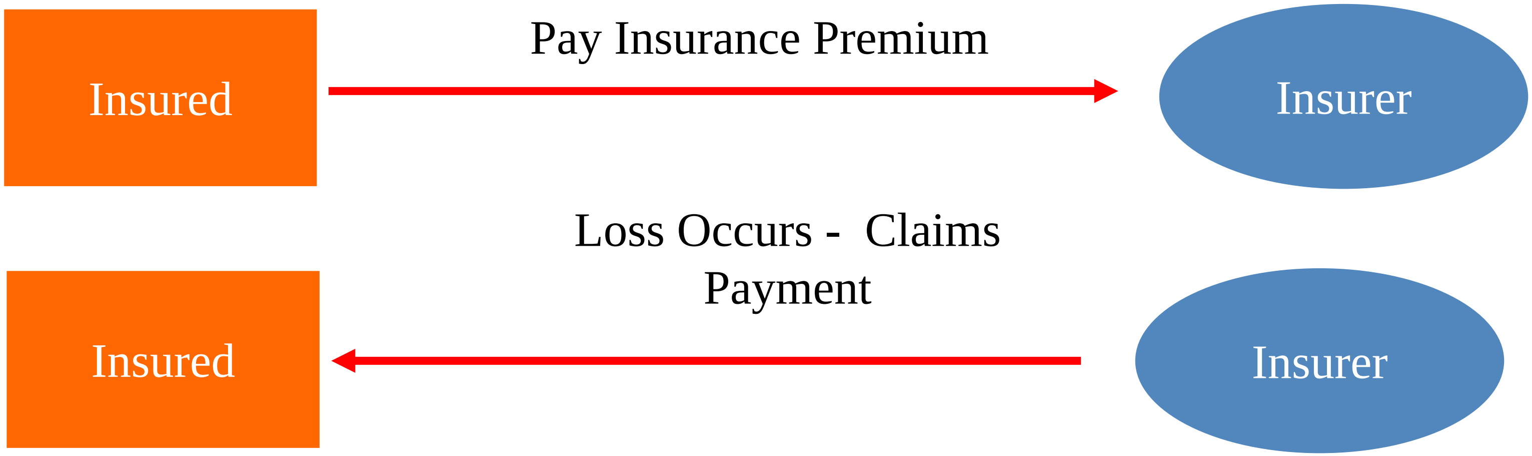


Role of Insurance

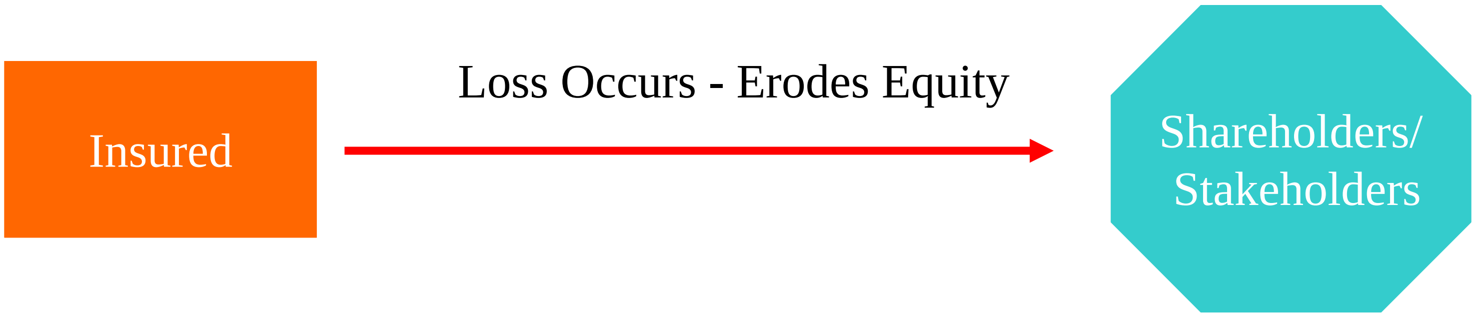
The role of insurance is central to effective Business Continuity Planning.

If the goal of Business Continuity Planning is to offset the potential impact of a business interruption, insurance helps facilitate this process by providing essential coverage for the loss of profits and continuing expenses whilst the extra expense coverage provides for the real time funding for costs incurred to mitigate the interruption, like the implementation of the Business Continuity Plan, to produce recovery and resume ‘normal’ business.

Retain Insurance and a Loss Occurs



Ineffective transfer i.e. No Insurance



Types of Insurance

Physical Damage / Other Costs

- Buildings/Real Property
- Personal Property (Insured and its Officers and Employees)
- Property of Others in Insured's Custody
- Accounts Receivable
- Electronic Data/Programs/Software
- Debris Removal
- Decontamination Costs/Pollutant Removal
- Demolition/Construction Costs
- Valuable Papers/Records
- Professional Fees

Types of Insurance

Time Based

- Business Interruption (BI)
- Contingent BI
- Extra Expense
- Leasehold Interest
- Civil Authority
- Ingress/Egress
- Service Interruption
- Electronic Data Processing and Computer Systems
- Third Party Liability
- General Liability
- Environmental Impairment Liability
- Directors and Officers Liability