

Operational Risks & Basel III

3rd IT Governance & Audit Conference

C.Coşkun Küçüközmen, PhD
İzmir University of Economics
01 March 2012, İstanbul

Experience is inevitable. Learning is not!

Paul JH Schoemaker



The invention of operational risk*

- *Operational risk is not a new risk...
However, the idea that operational risk management is a discipline with its own management structure, tools and processes...is new.*

(British Bankers Association website, accessed 26.08.02).

* Michael Power, February 2003.

The invention of operational risk-2

- The generic term 'operations risk' had already been officially coined in 1991 by the COSO report (COSO, 1991) but did not acquire widespread currency until the mid 1990s when the 'rogue trading' of Nick Leeson caused the collapse of Barings Bank.

The invention of operational risk-3

- **Basel 2** has many important dimensions but for the purposes of this discussion, the most significant is its role in **institutionalizing 'operational risk' as a category**, albeit a problematic one, of regulatory attention.

The invention of operational risk-4

- I. The *basic indicator approach* is crude but simply has the intention of establishing the operational risk management agenda, basing the charge on a single indicator, gross income, as a proxy for operational risk exposure. The charge is easily calculated as a fraction of gross income.

The invention of operational risk-5

2. The *standardized approach* extends the *basic approach* by decomposing the *calculation* into underlying business units and lines. Business lines are weighted relatively in terms of probabilities of losses, *based on loss data* of some kind (Betas, correlations).

The invention of operational risk-5.1

Business Lines

- **1. Corporate finance**
- **2. Trading and sales**
- **3. Retail banking**
- **4. Commercial banking**
- **5. Payment and settlement**
- **6. Agency services**
- **7. Asset management**
- **8. Retail brokerage**

Operational losses can be caused by any of these event types:

- **1. Employment practices and workplace safety**
- **2. Internal fraud**
- **3. External fraud**
- **4. Clients, products, and business practices**
- **5. Damage to physical assets**
- **6. Business disruption and system failures**
- **7. Execution, delivery and process management (BCBS 2006)**

The invention of operational risk-6

3. The third *internal measurement approach* is the intended destination of the new capital accord and it is here where most of the controversy resides

The approach adds much more risk sensitivity than the standardized approach by using more customized risk exposure indicators (Els) as potential losses for business line loss types.

The invention of operational risk-7

- The process of developing these rules has been subject to considerable industry **negotiation**, 'road shows' and persuasion by Basel committee staff.



Definition of operational risk

- Within banking regulation, operational risk was regarded as implicitly covered by a residual category of 'other risks' i.e. what was left over after market risk and credit risk had been managed.

Risk Identificaton & Data Collection

- Operational risk management is not simply a technocratic process of identification; tracking (data collection); measurement and management.
- ‘..given the difficulty of quantifying aspects of operational risk, the reliance on a single number may itself be an operational risk’ (Wilson, 2001).

What does OpRisk really mean?

- OpRisk is **not** simply a set of technical innovations but also a **transformation** of the language and concepts of practice, making new modes of argumentation and organizational politics possible, and a transformation in the hierarchy of management knowledge.

Challenger, 28 January 1986

- The space shuttle Challenger exploded

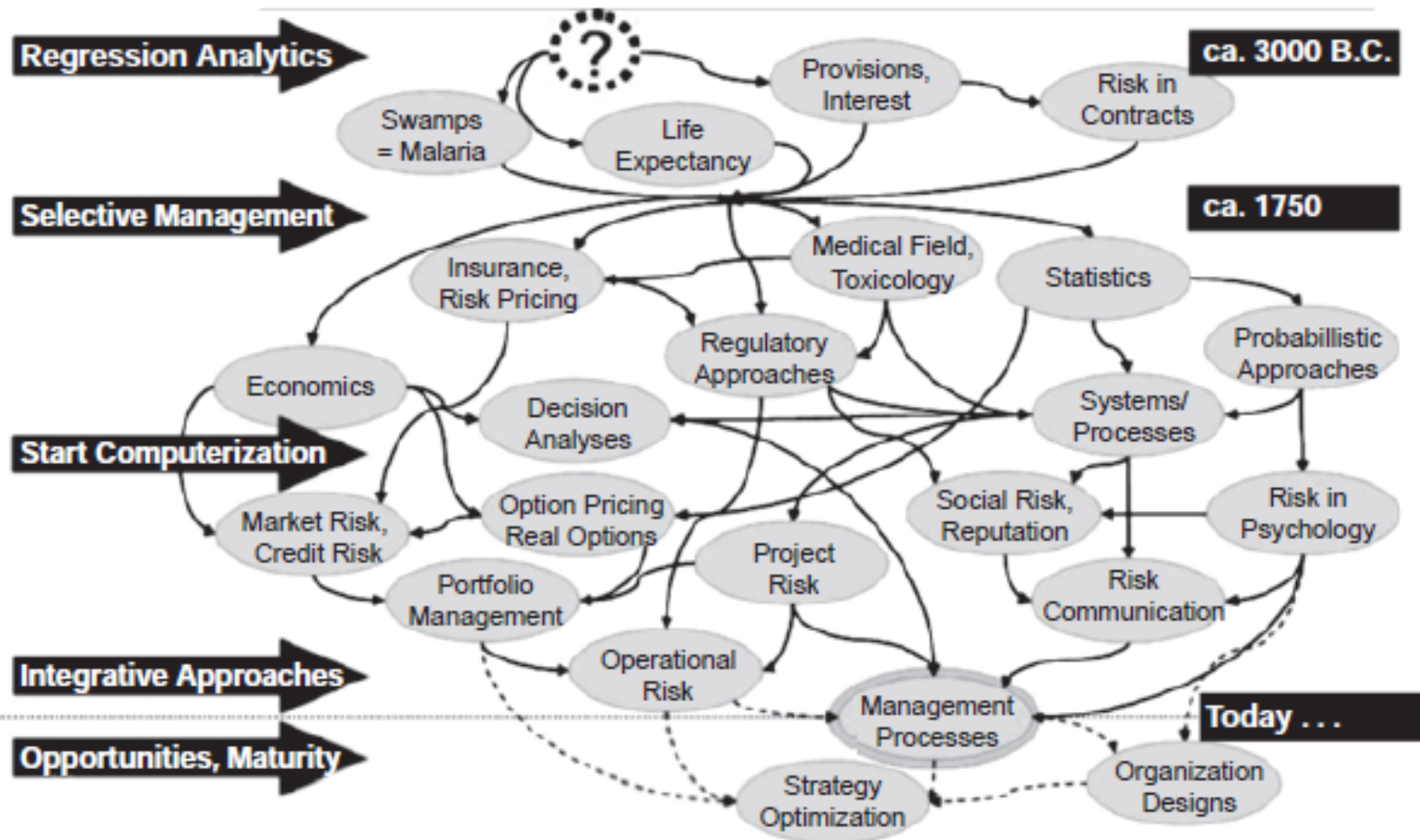


The mission takes big bucks... so it requires a big justification.
The strategy and vehicle selected couldn't sustain its business plan.
Complacency (satisfaction) is hard to avoid. (verbatim)
There will be accidents (verbatim)

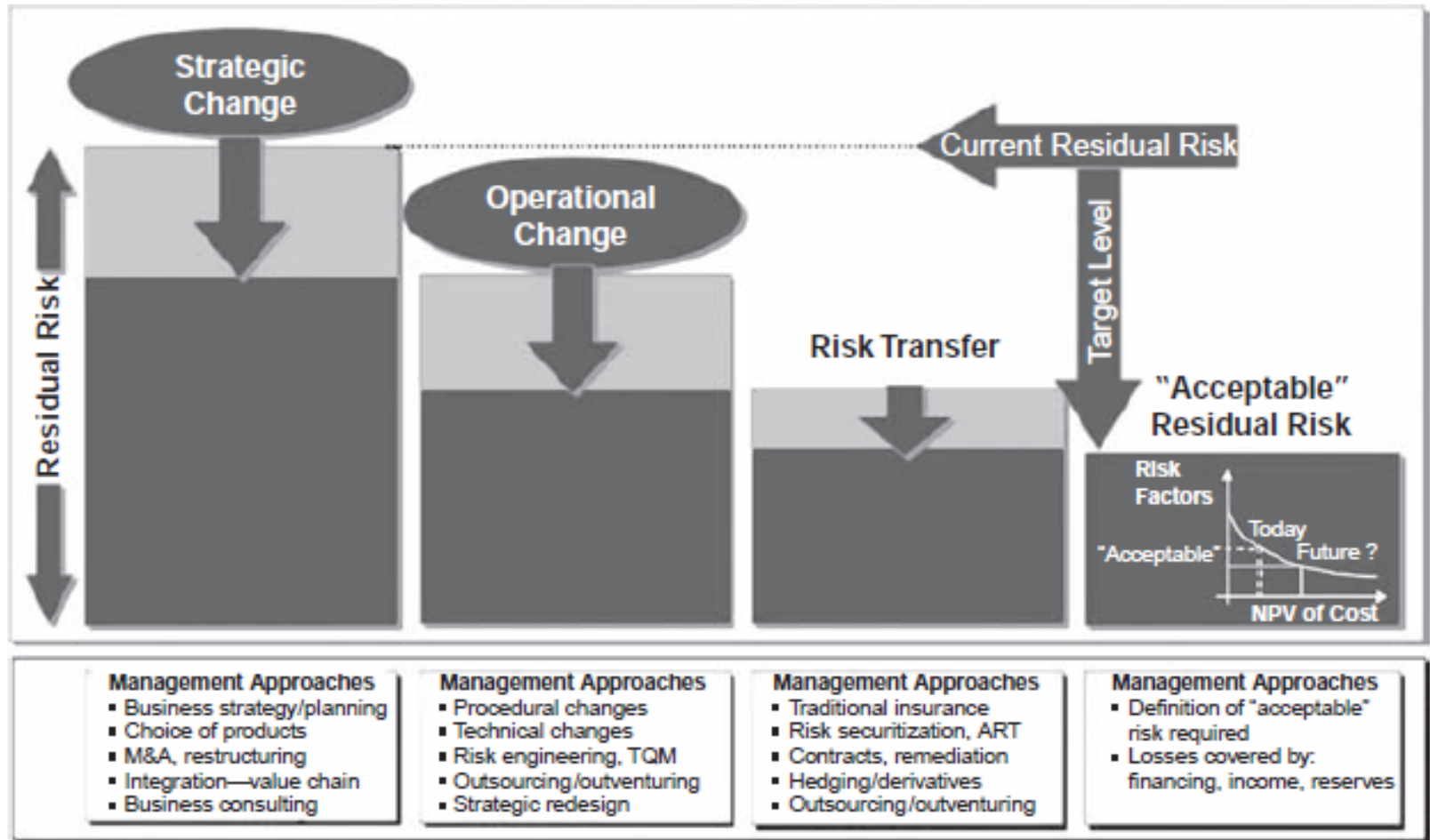
Financial Crisis Inquiry Commission

- The crisis was the result of *human action and inaction, not* of Mother Nature or computer models gone haywire... *The captains of finance* and the public stewards of our financial system *ignored warnings and failed to question, understand and manage evolving risks within a system essential to the well-being of the American public.* Theirs was a big miss, not a stumble... *The greatest tragedy* would be to accept the refrain that no one could have seen this coming and thus nothing could have been done. *If we accept this notion, it will happen again.*

Evolution of Risk Analysis and Risk Management Techniques



Overall Scope of OpRisk Management



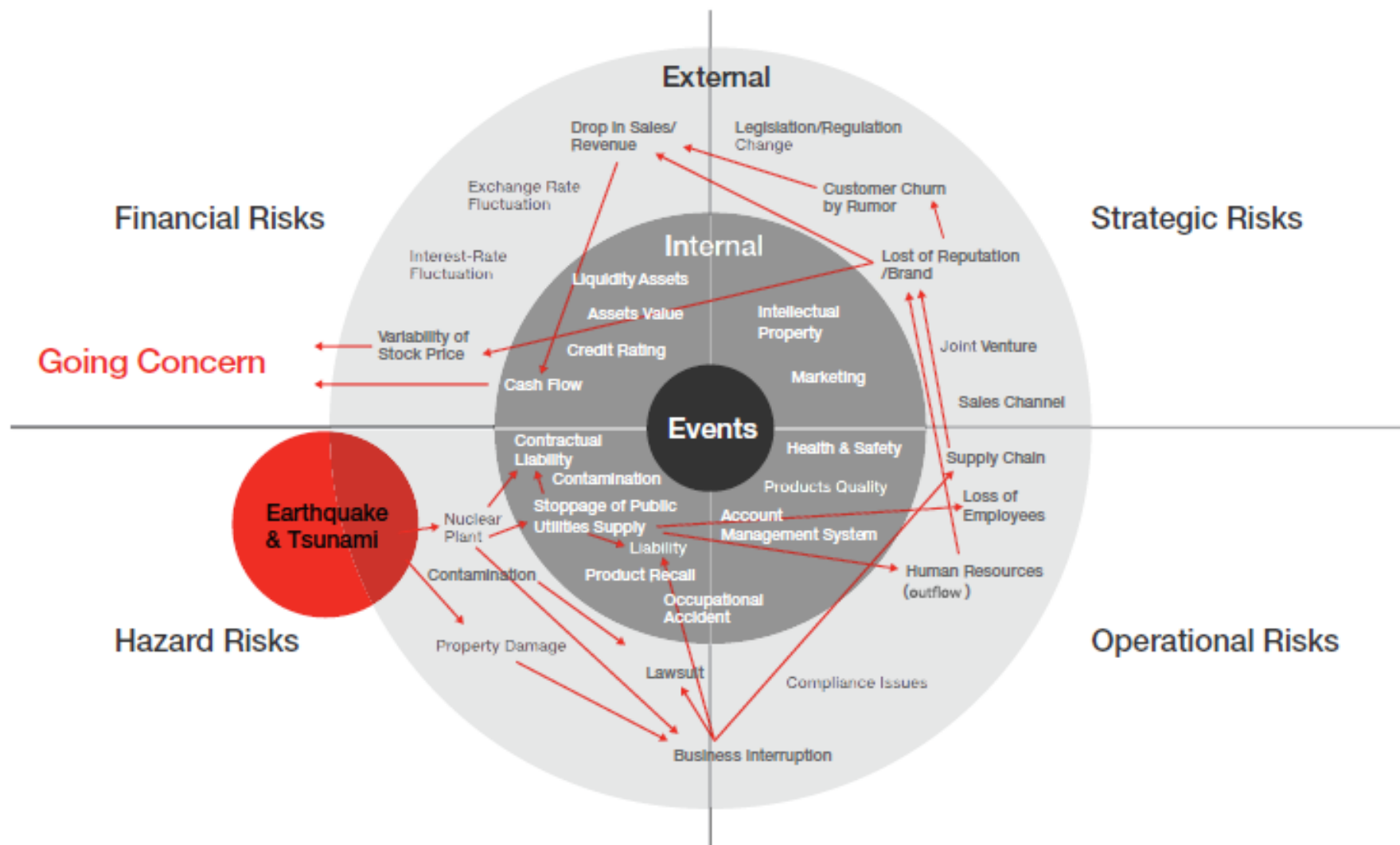
To achieve the ultimate objective of reducing residual operational risk from its current level to the "acceptable" level you need to employ a combination of risk transfer, operational change, strategic change mechanisms and approaches by covering any losses through a combination of reserves, income, and financing.

Tools and Models?

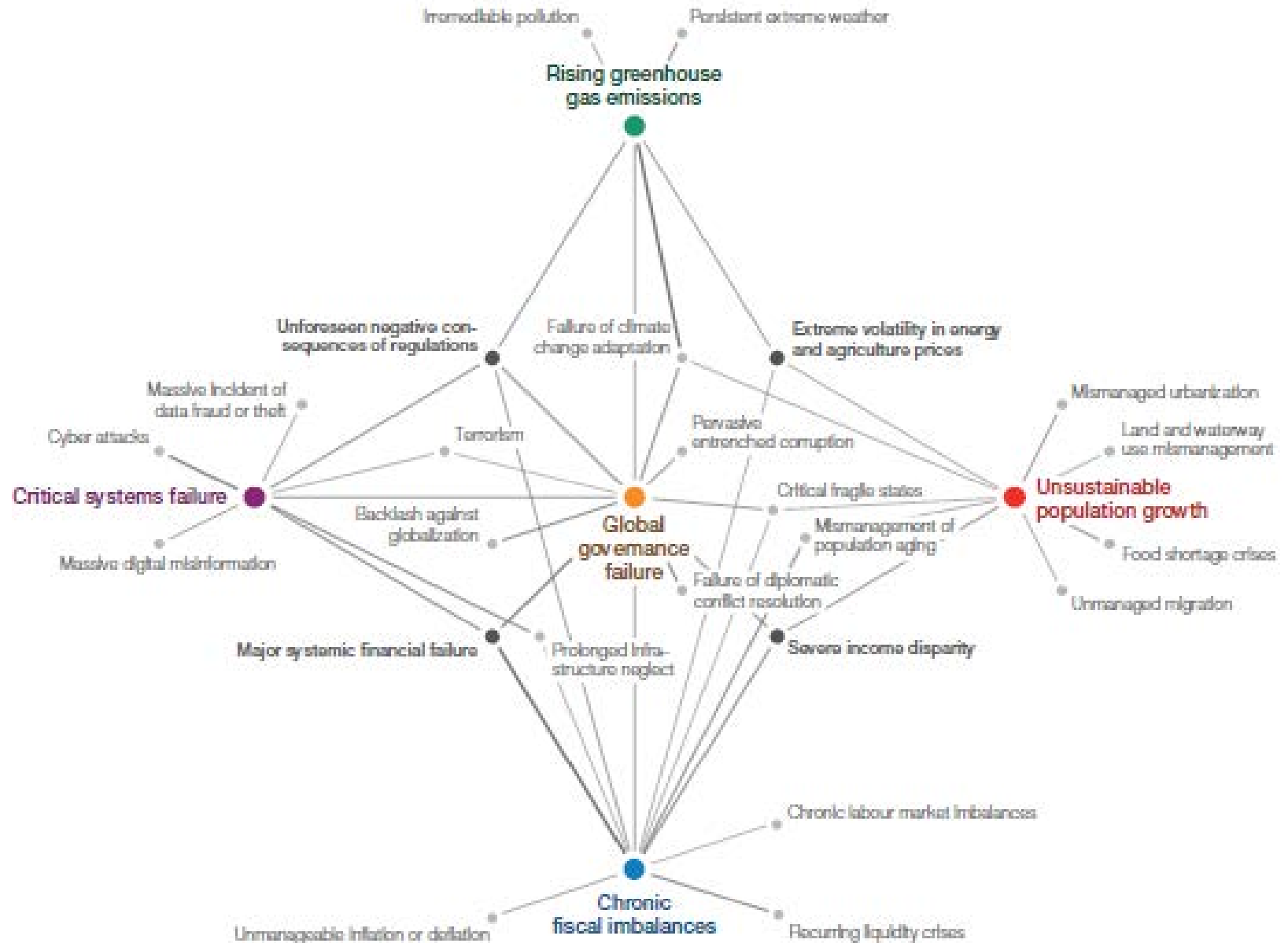
- *Probability Distributions*
- *Extreme Value Theory*
- *Tails*
- *Copula*
- *Simulations*
- *Sampling and Cross-Entropy*
- *VaR*
- *Poisson Shock Models*
-

Global Risks 2012

Figure 23: Example of Business and Operational Risks and their Domino Effects



Global Risks 2012



The Biggest Risk Managers Ever!



Kaptanla öpüşürken gemi battı !!!

- İtalya'da kayalara çarparak batan gemide kumanda odasında kaptanla birlikte olan Moldovalı hostes sonunda konuştu!
- İtalya açıklarında, kayalara çarparak batan ve 32 kişinin ölmesine neden olan Costa Concordia gemisinde, Kaptan Francisco Schettino (52) ile aşk yaşadığı iddia edilen Moldovalı Domnica Cemortan ilk defa konuştu.
- Sunday Mail gazetesinin izini sürerek konuştuğu 25 yaşındaki Cemortan “Kaptanla çok samimiydik. Buna aşk diyemem ama kazadan önce öpüştük. Ondan hoşlanıyordum. Belki kaza olmasa o gece” dedi.

