

Risk

A Global Perspective

Project Risk Management – An International Perspective

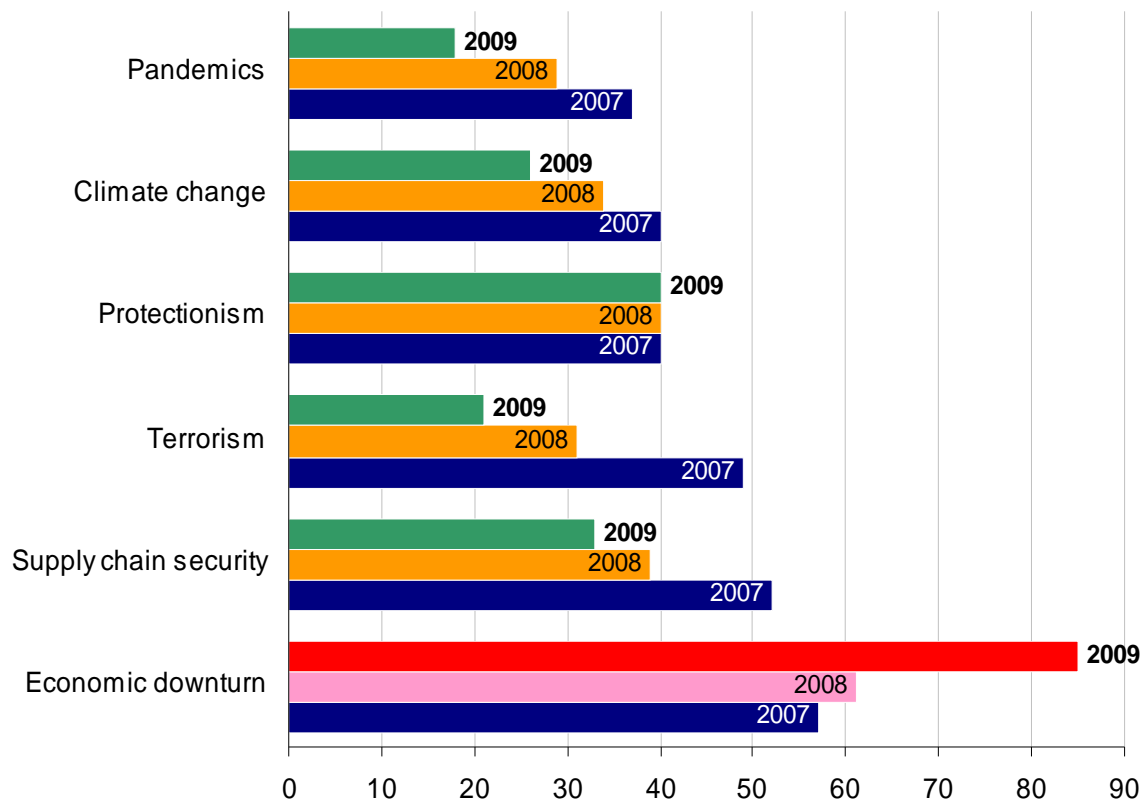
Rome, November 6, 2009

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Global risks: Disconnect in the C-Suite

Percentage of CEOs concerned about specific risks



Reasons for disconnect

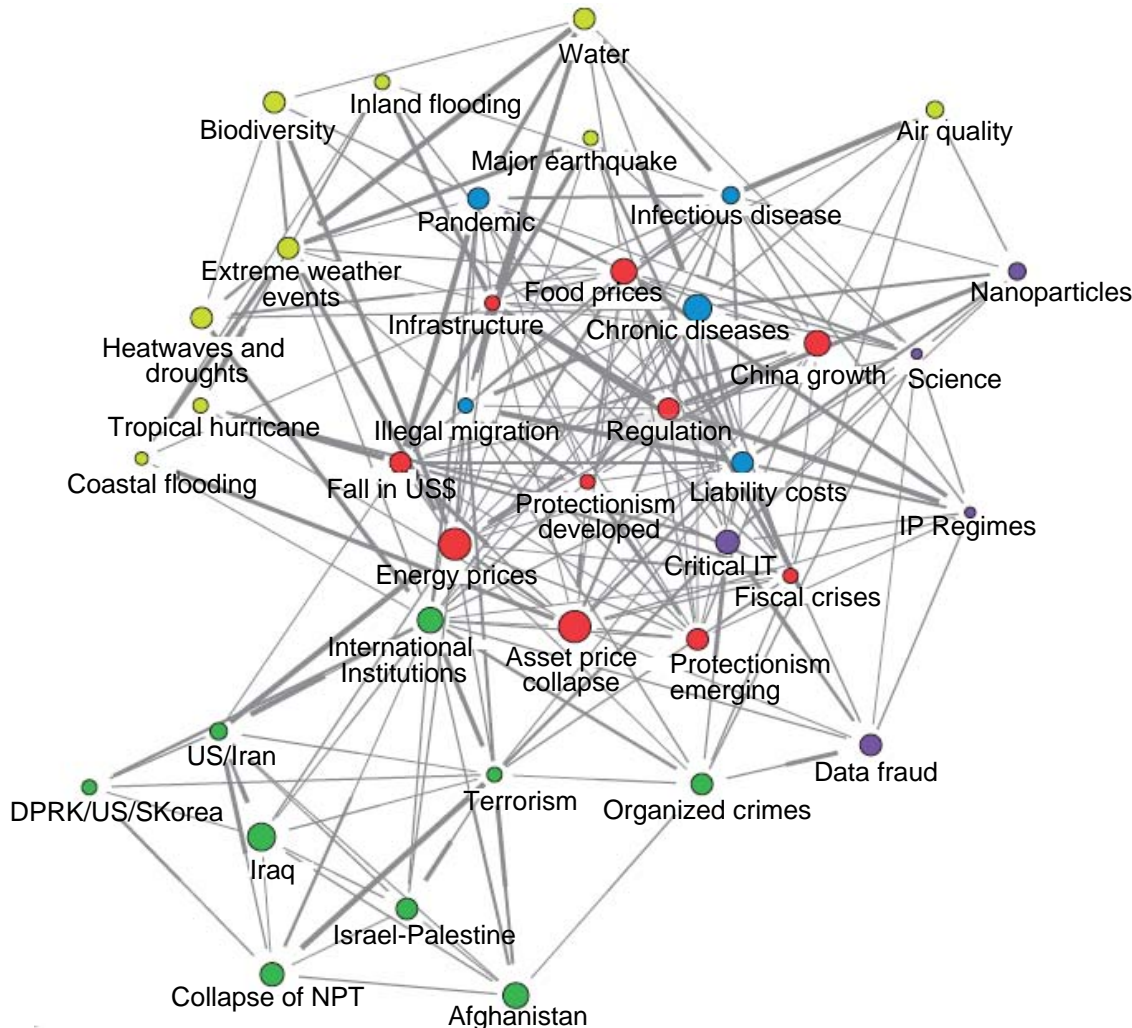
- Out of sight, out of mind
- Crowding out
- Short time horizon
- Put off by complexity

In short:

- Risk myopia
- Failure to account for complexity

Failure to account for complexity...

Risks interconnection map (RIM) 2009

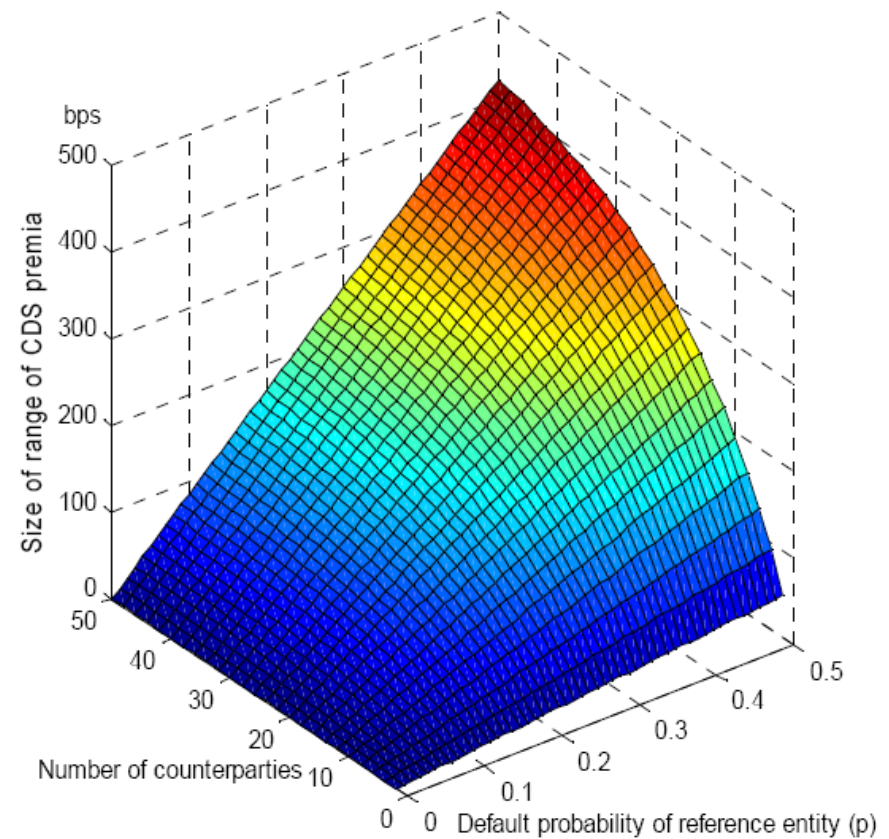
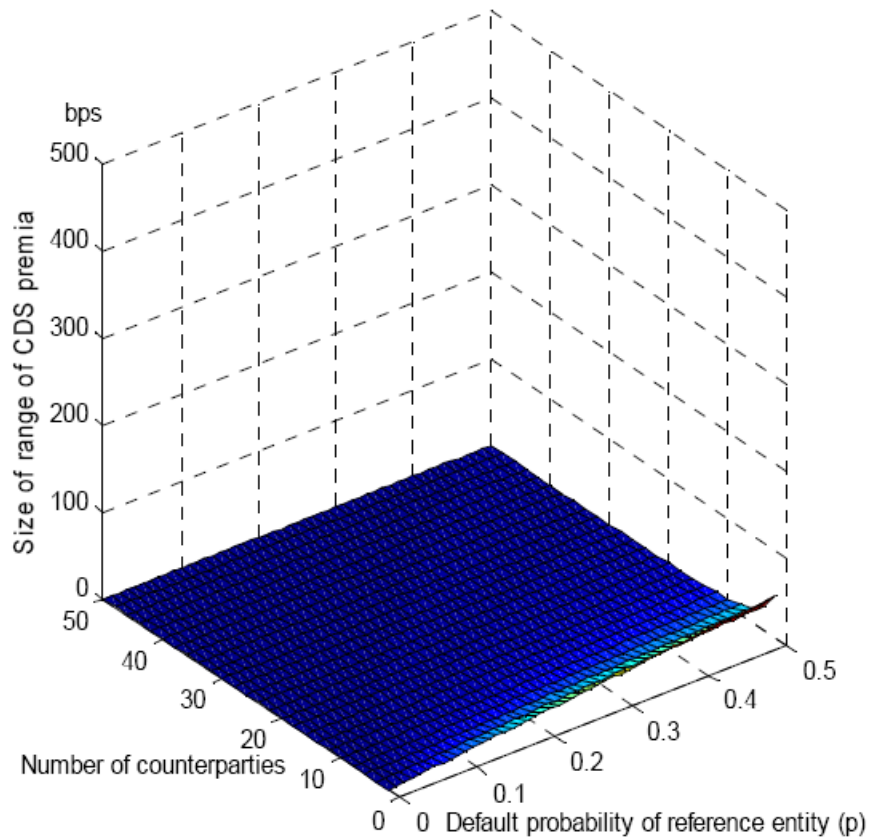


How to read this map

- Node size denotes severity
- Line thickness denotes strength of interaction
- Risks that are tightly inter-linked are closer to each other

... makes for nasty surprises

The power of network effects






Source: Bank of England

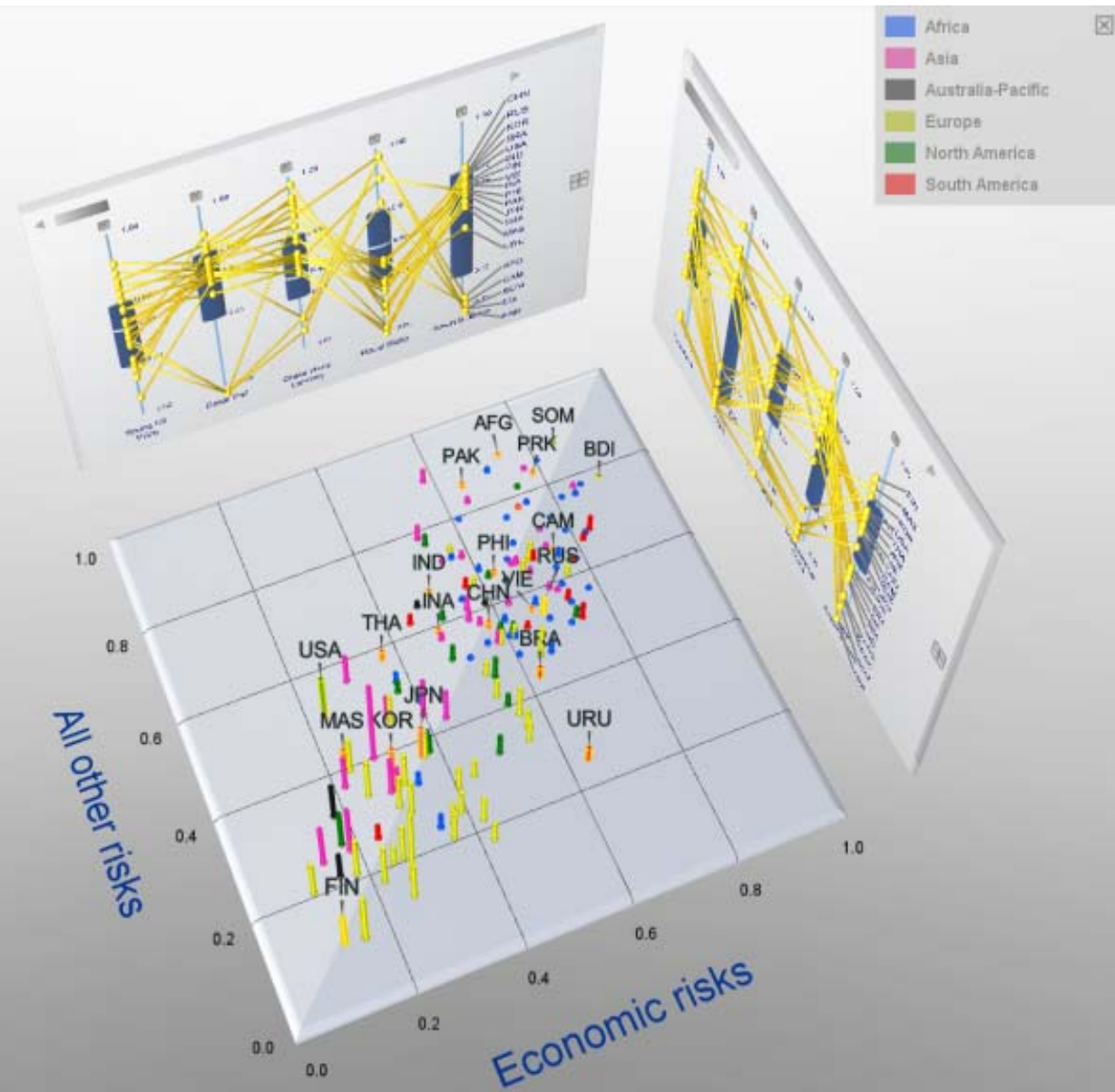
We must cast our net wide

Change in global risks between '08 and '09

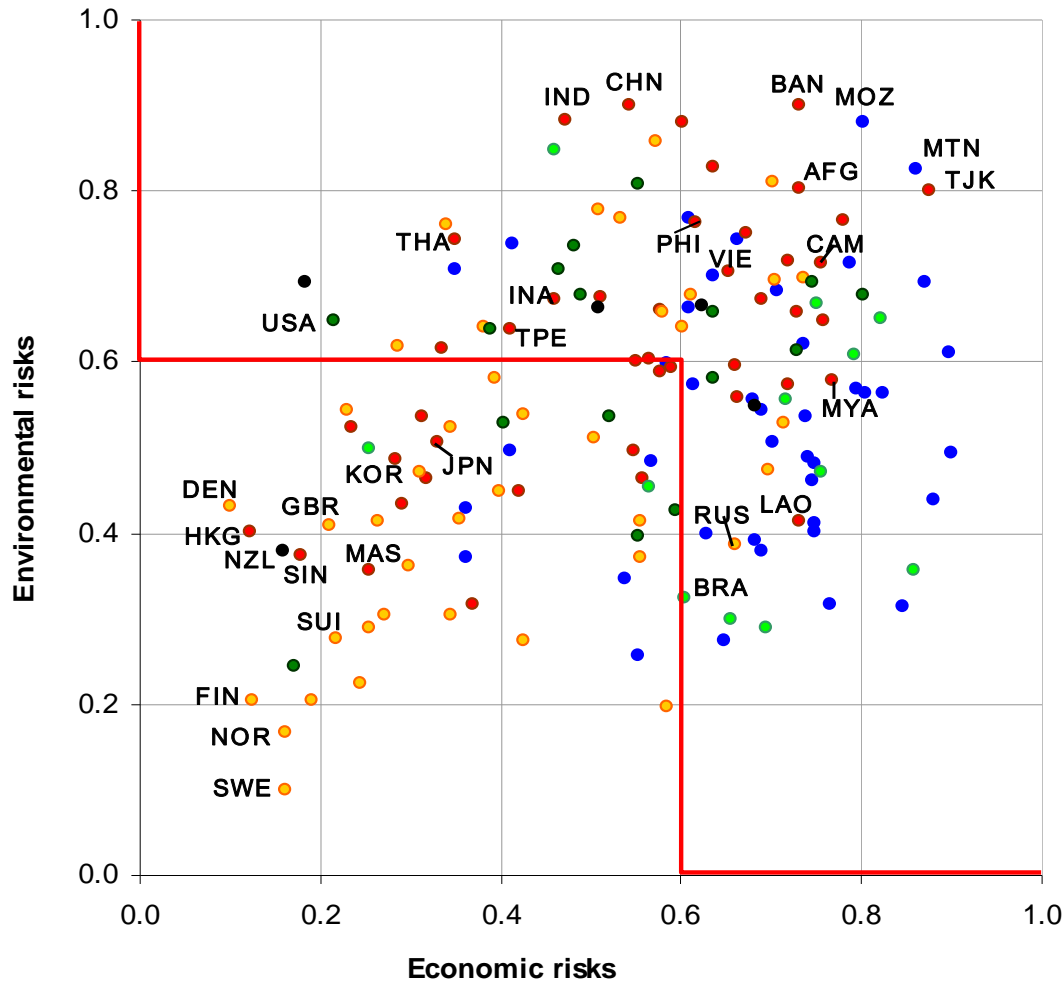
| Economic | Environmental | Geopolitical | Societal | Technological |
|---------------------------------|---------------------|------------------------------------|---------------------|------------------|
| Food price volatility | Climate change | Terrorism | Pandemics | Breakdown of CII |
| Oil / gas price spike | Loss of fresh water | Collapse of NPT | Infectious diseases | Nanotechnology |
| Major fall in US\$ | Desertification | US/Iran conflict | Chronic diseases | |
| Chinese hard landing | Earthquakes | US/DPRK conflict | Liability regimes | |
| Fiscal crises | Inland flooding | Afghanistan instability | | |
| Asset price collapse | Cyclone | Transnational crime and corruption | | |
| Retrenchment from globalization | | Israel-Palestine conflict | | |
| | | Violence in Iraq | | |

| | |
|---|----------------|
|  | Increased risk |
|  | Unchanged risk |
|  | Decreased risk |

Zurich's Global Risk Assessment Module



Environmental risks differentiate Asia



Five environmental risks

- Droughts
- Sea level rise
- Water shortages
- Seismic disasters
- Storms and floods

44 Economic risks and risks to the business environment

Risk correlations

| | |
|---------------|-------|
| Asia | 0.58 |
| Africa | 0.10 |
| Europe | 0.58 |
| South America | -0.10 |

• Africa • Asia • Australia Pacific • Europe • N & C America • S America

Poor supply chain risk management has huge impacts with long recovery times

| Company | Supply Chain Risk Area | Impact |
|-------------------|--|---|
| ▪ Ericsson | Single source of supply for critical manufacturing element | - Loss of \$400 million in sales after fire at microchip supplier plant and subsequent loss of business line |
| ▪ Airbus | Design and production delay | - 2 year delay leading to pay delay penalties demanded by customers - \$1.1 billion was paid as of July 2008 |
| ▪ Sony | Manufacturing issues at plant producing key system component | - 3-month delay in European PS3 launch - Reduction of forecasted units shipped from 4 million to 2 million in 2006 - Reduction in profit targets from \$130 billion yen to \$80 billion yen |
| ▪ Chevron | Platform and rig delivery behind schedule | - Delay the start of a 2.8 billion \$ oil project in Brazil by three months |

Summary

1. Many risks are manageable, but
2. A proper risk assessment must account for interdependencies...
3. ... and extend over a broad spectrum of risks
4. Quantitative modeling tools can visualize complex interactions

Don't be surprised by the predictable



Thank you

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