Information for Risk Management in the Large

1. Our community
2. Our analytical approach
3. The dynamics of systemic risk
4. New metrics of aggregate behavior
5. Crisis management
Our Community

• Open source
• Techniques: Wikis, sandboxes
• Fellowships, ST hires, university labs
• Confidentiality: security, trust, etc.
• Multidisciplinary
• Making analysis industrial strength
• Collaborative
• Replication
• Data, model and analysis audit trails
Analytical Approach

- Highly granular
  - CAS
  - ABM
  - Network analysis
- Macroeconomic
  - CoVar
  - Exposure analysis
  - Dynamics of the credit cycle
The Dynamics of Systemic Risks

- Network and population changes
- Imbalances and bubbles
- Leverage and maturity mismatches
- Positive feedbacks
- Growth and emergent concentrations
New Metrics of Aggregate Behavior

• Indices - mortgages, leverage, liquidity
• Measures of imbalances (eg: when house prices move out of line with income or rents ...)
• Measures of heterogeneity
Crisis Management

- Exposure maps
- Forensics of market abnormalities
- Reactions functions