Classifying Financial Risk

Robert Nehmer, Oakland University, Rochester Michigan USA
Mike Bennett, EDM Council UK
Paper Concerns

- Risk
- Classification Theory
Identify Concepts of Risk

- Goals - teleological
- Events - risks and opportunities
- Risks
  - Likelihood
  - Impact
Identify Concepts of Risk

- Risk Assessment
  - Responsible party accesses their risks

- Risk Portfolio

- Risk appetite

- Risk tolerance
Identify Concepts of Risk

- Corporate risk
  - Strategic risk
- Operational risk
- Market risk
- Financial risk
Finance Risk Concept Formation

- Goals of corporate finance
  - Ability to access market

- Self finance

- Four activities:
  - Raising capital,
  - Using capital,
  - Maintaining capital
  - Distributing capital
Finance Risk Concept Formation

Financial risk includes:
- Asset-backed risk
- Credit risk
- Foreign investment risk
- Liquidity risk
- Market risk (including equity, interest rate, currency and commodity risks)
- Operational risk
- Reputational risk
- Legal risk
- Information technology risk
Classification Considerations

- How to classify risk: goals? Impacts? Likelihood?

- Classification is fundamentally variation

- For every variation on any dimension, we can create a classification

- The problem: what are you goals? (for your project, etc.)
Classification Considerations

- Any dimension defines a relation
  - Transitive - ISA
  - Generic
  - Whole/part
  - Type instance
  - Inclusion
  - Topic
When Does Taxonomy End and Attributes Begin?

- Financial trade example
  - Spot transaction
  - Forward transaction
  - Option transaction
    - Reverse option
    - Put
    - Call
  - Swaps
  - Swaption
When Does Taxonomy End and Attributes Begin?

- Types of derivatives
  - Commodities
  - Fex
  - Rates
    - Interest rates
    - Indices
  - Assets
    - Indexed
    - Equities
    - Structured assets
Classifying Risk

- What if need a unique identifier? A privileged classification
- What if you don’t
  - Classifications more relevant to trader
  - Classifications more relevant to risk
We want to talk not only about the instruments people hold but about the positions themselves.

It is not just the position - one position may be positive for one goal and negative for another goal.

Goals of a trading organization are different from the goals of something else.

So we need to categorize and classify the goals in order to classify the risks.

The more we can categorize the goals or strategies of an investment effort, the more we can classify the risks against that.
Classifying Risk

- Not “data about risk” but “data risk is about”
- Relevant to the goal
Questions?