UNAWARENESS, FINANCIAL INNOVATION AND FINANCIAL REGULATION

Paper presented to Paul Woolley Centre for the Study of Capital Market Dysfunctionality Centre conference 2014

BLACK SWANS

- Unforeseen events (Taleb)
- Central to GFC
- Have always happened and always will
- Obviously important but hard to think about

EMERGING THEORY OF UNAWARENESS

- Incomplete understanding of possible states of the world
- Precautionary principle (Grant & Quiggin)
- Implications for financial innovation (Quiggin and Siddiqi)

UNAWARENESS AND FINANCIAL MARKETS

- The Arrow-Debreu Model
- State space describes all possible contingencies
- Securities as bundles of state-claims

UNAWARENESS

- Incomplete perception of state space
- Coalescence
  - Failing to distinguish different states
- Restriction
  - Failing to consider some possible states

EXAMPLE

- Two securities (bonds and stocks)
- Two events (bank safe or not, stocks up or down)
- Four states of nature

COALESCENCE

- Investor does not consider stocks
- Sees two states (banks safe or not)
- Potential welfare improvement by investing in stocks

REDUCTION

- Investor does not consider possibility of bank failure
- Unawareness results in suboptimal investments

UNAWARENESS AND FINANCIAL INNOVATION

- Coalescence: potential for welfare improving innovations
- Reduction: potential for spurious arbitrage

PRECAUTIONARY PRINCIPLE

- When surprises are likely to be unfavourable, avoid decisions with poorly understood consequences
- Unless losses can be bounded reliably

REGULATION AND PP

- Financial innovation as a game between financial institutions and regulators with bounded awareness
- Naively unaware regulators have presumption in favour of innovation
- Sophisticated regulators apply PP

FINANCIAL INNOVATION

- Pre-crisis view of financial innovation as unambiguously good
- But poorly understood innovations are dangerous
- Onus of proof should be on innovator

TBTF OR TCTF?

- Too Big To Fail or
- Too Interconnected To Fail ?
- Cost of isolated failures can be estimated and bounded
- Costs of cascading failures are unbounded
- Standard prudential measures of limited use

NARROW BANKING

- Restrict central bank support to narrow banks
  - savings & loans only
  - no trading activities, no exposure to investment banks
- Isolate bailouts to core banking sector
- Would require breakup of existing banks

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