Systemic Failure in the Banking System

John Kay

The Foundation for Science and Technology
at The Royal Society, 25th April 2012

www.johnkay.com

Risk management

"We are now in the midst of another wave of innovation in Finance. The changes now underway are most dramatic in the rapid growth in instruments for risk transfer and risk management, the increased role played by non-bank financial institutions in capital markets around the world, and the much greater integration of national financial systems.

These developments provide substantial benefits to the financial system. Financial institutions are able to measure and manage risk much more effectively. Risks are spread more widely, across a more diverse group of financial institutions, within and across countries.

These changes have contributed to a substantial improvement in the financial strength of the core financial intermediaries and in the overall flexibility and resilience of the financial system."

Timothy Geithner, speech to Global Association of Risk Professionals
In New York City, 28 February 2006

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Why do people trade risks?

Some people are better placed to bear risks

Initial risk exposures differ

People have different risk preferences

People make different assessments of the same risks

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'We were seeing things that were 25 standard deviation moves, several days in a row'.

David Viniar, CFO Goldman Sachs
Financial Times, 13 August 2007

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“Normal Accidents” (Charles Perrow)

The product of an unanticipated interaction of multiple failures in a complex system

Generated by extreme complexity and tight coupling

Additional safety regimes, which add complexity, may increase probability of failure

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Principles of resilient system designers

Remove avoidable complexity

Loose coupling wherever possible

Emphasise redundancy and modularity.