

Financial Derivatives and Atomic Energy: A Regulatory Perspective

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Warren Buffet's Warning

- *In our view... derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.*
 - **Warren Buffett (2002 Chairman's Letter)**



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Buffett's Prescience

- Global derivatives markets had grown from \$100 trillion in 2002 to \$516 trillion in 2008.
- During this period:
 - Subprimer crisis in the US
 - 2008 global financial crisis
 - Closure of Bears Stern;
 - Bankruptcy of Lehman Brothers;
 - US Government's bailout of AIG and CitiGroup;
 - Societe Generale and Jerome Kerviel
 - 2010-2011 Eurozone sovereign credit crisis.
- All of these make P&G's loss, Orange County's bankruptcy and LTCM's debacle before 2002 appear insignificant.



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What Are Financial Derivatives?

- Financial derivatives are contracts whose values are based on prices of underlying assets and their volatilities.
- For example,
 - Gold futures allow counterparties to fix today the price of their trade six months later;
 - Put options in the stock index provide portfolio insurance for portfolio managers during an anticipated bear market;
 - Interest-rate swaps allow a company to realize gains from trade between fixed rates and floating rates.
- Characteristics
 - Zero-sum trades; flexible; highly levered (implicit); high risk (when used alone)
 - Could be effective risk management tools when used appropriately



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Financial Derivatives and Financial Innovation

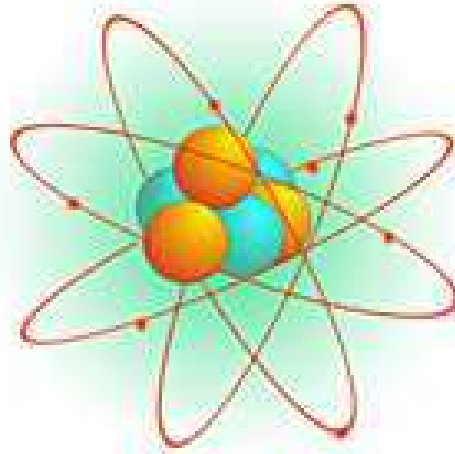
- Financial derivatives are products of financial innovation.
- Financial innovation
 - Seeks to improve or innovate financial systems and operation procedures based on market demand;
 - Develops new financial tools, including new derivatives;
 - Improves market liquidity and efficiency;
 - Caveat: Sufficient transparency of both design and implementation of financial innovation.
- Former Chairman of the US SEC, Arthur Leavitt (1995):
 - ... *derivatives are something like electricity; dangerous if mishandled, but bearing the potential to do good.*



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Financial Innovation Is More Like Atomic Energy

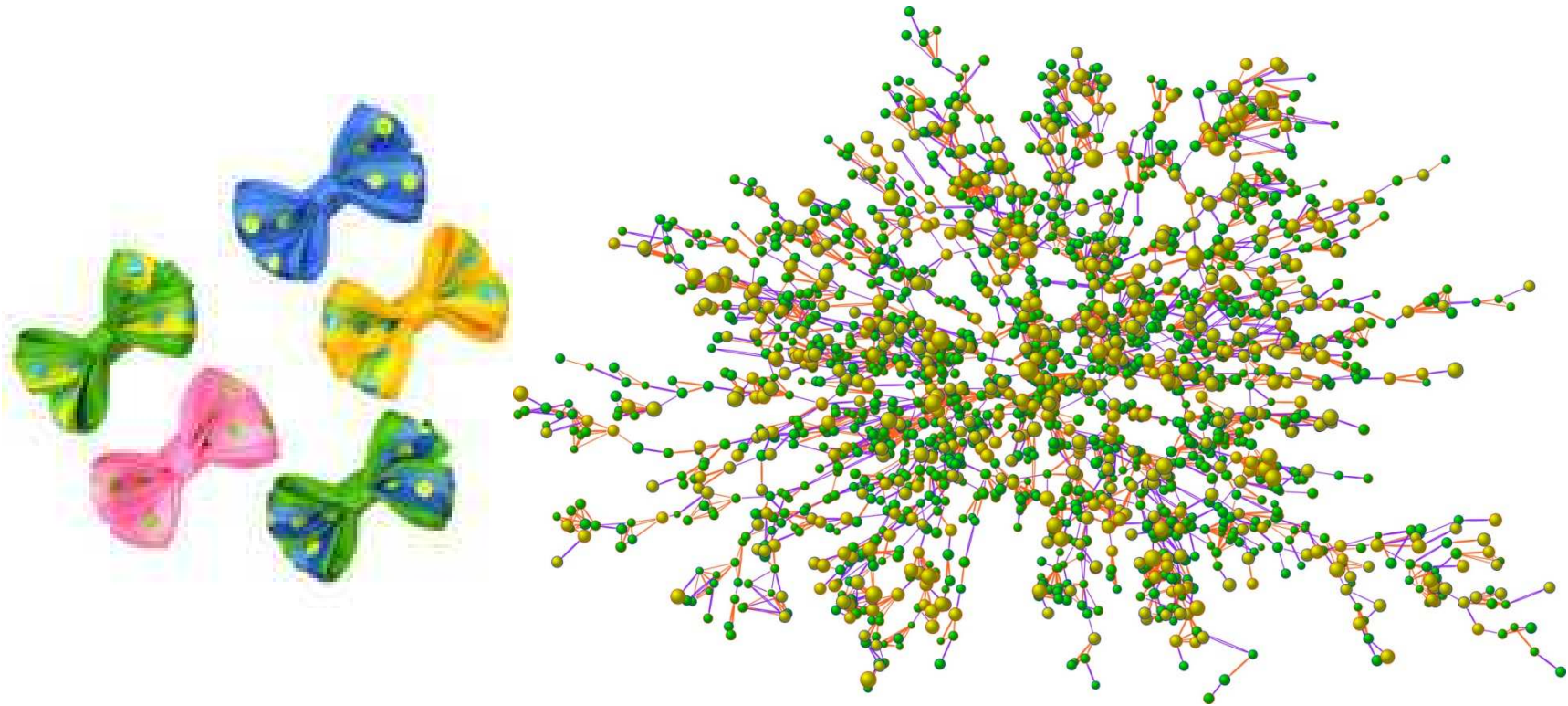


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Are Financial Derivatives the Culprit for the Global Financial Crisis?

- As financial derivatives are zero-sum games, how could they cause the systemic crisis?



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Are Financial Derivatives the Culprit for the Global Financial Crisis?

- Financial derivatives usually have an insurance function, how could they lead to such large losses?
 - Complexity, high implicit leverage, and irregular or unauthorized trades by rogue traders
- For example
 - China Aviation Oil (Singapore)'s unauthorized trades and lack of market sophistication
 - Societe Generale's failure to detect Jerome Kerviel's unauthorized trades
 - Hong Kong investors' blind trust in sales pitches without understanding the derivatives product in "mini-bonds" that exploded
 - Lehmann Brothers, AIG and other financial institutions' greed for the current income from selling derivative products without fully accounting for their future risk and liabilities.



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Financial Innovation and Financial Regulation



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Lessons for China: Necessity of Proper Financial Innovation

- Even though the Chinese economy was insulated from the brunt of the global financial crisis by its relatively closed financial system, it should not be an excuse for shying away from financial innovation
 - Under the premise of transparency and market discipline, financial innovation can help Chinese companies effectively improve efficiency, lower costs and become more competitive in global markets;
 - Increasing participation of multiple economic entities will increase demand for diverse and innovative financial instruments;
 - The internationalization of RMB also brings greater demand for financial innovation to produce more sophisticated financial tools.
- Increasing effort in financial innovation requires more high-level talents with advanced finance knowledge and international horizon



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Lessons for China: Urgency of Adequate Financial Regulation

- Complexity of financial derivatives makes it difficult for markets themselves to prevent these instruments from being misused or abused, or becoming weapons of mass destruction on the economy and citizen wealth.
- Adequate financial regulation can help prevent or reduce such misuse/abuse and maintain transparency and sustainability of financial innovation.
 - Example: Differences in regulations on banking products for depositors between the US and Asia
- Proper regulation on financial derivatives is a huge challenge, requiring sophisticated financial knowledge and a systematic approach, not much different from regulating the use of atomic energy .



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谢谢!

Thank you!



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