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日本経済学会春季大会（千葉大学）特別セッション「金融危機」

金融制度設計における情報とインセンティブ

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ヘッジファンドのガバナンスとバブル

(1) Behavioral aspects of arbitrageurs in timing games of bubbles and crashes (Matsushima, 2009)

(2) Incentives in hedge funds (Matsushima, 2010)

(3) Financing harmful bubbles (Matsushima, in preparation)

What is hedge fund?

- **Bonus fee**
- **Limited withdrawal**
- **Weak regulation (derivatives, leverage, long/short, …)**
- **Low transparency**
- **Dynamical investment strategy (cf. buy & hold)**
- **Alpha**

What is ideal hedge funds' role?

- **Stabilize Financial System: Generate Alpha, Market Efficiency**

How is current hedge funds' rule?

- **No penalty**
- **Separation of investors' fund and personal fund**

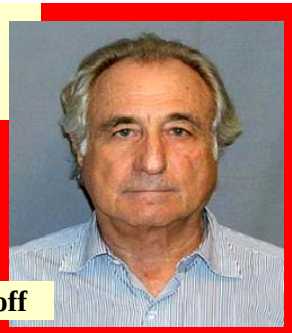
"Fund managers argue that the lower (tax) rate is appropriate because of the risky nature of hedge fund investments. This is, in effect, the same argument often been used to justify lower tax rates on investments generally. The critics, however, note that most fund managers have very little of their own money at risk. They raise and manage the money of other investors and in this sense function as investment managers and advisors—just as managers of investor stock portfolios do." (Donaldson (Hedge fund ethics, 2008/10))

- **Tax haven**

Hedge fund is problematic!

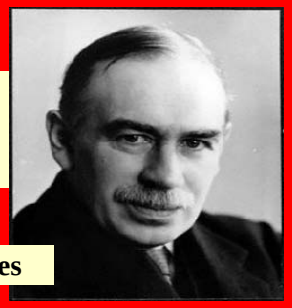
- **Destabilize Financial System:**

Lemon (Fake)



Bernard Madoff

Bubbles

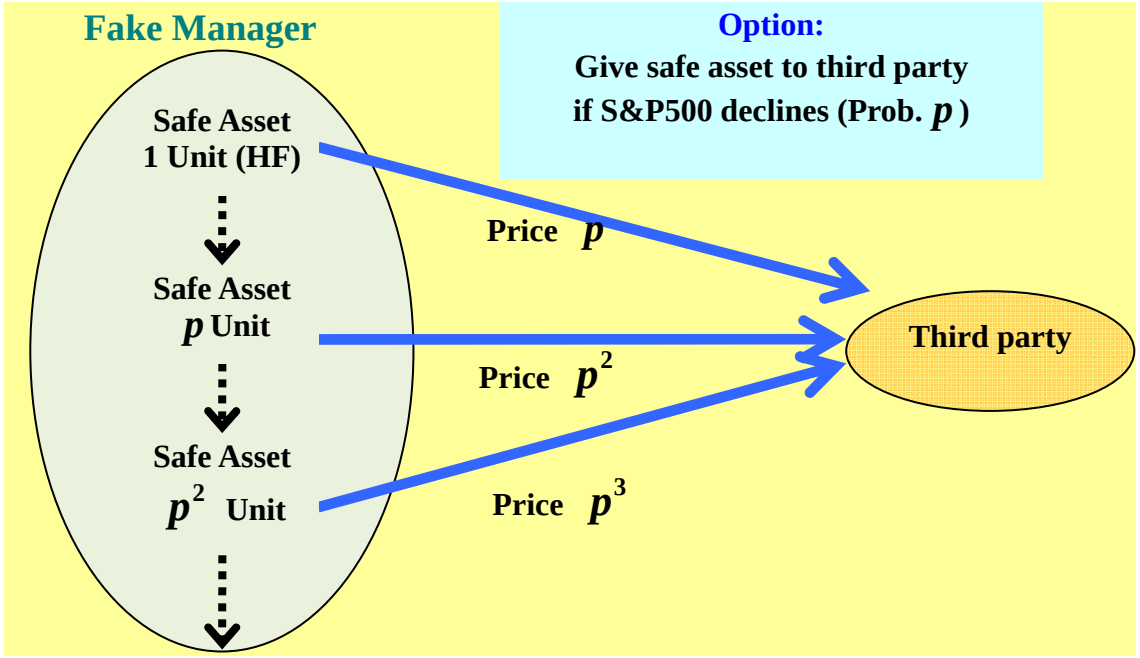


John Maynard Keynes

We Need Governance!

Lemon (1): Capital Decimation Partners

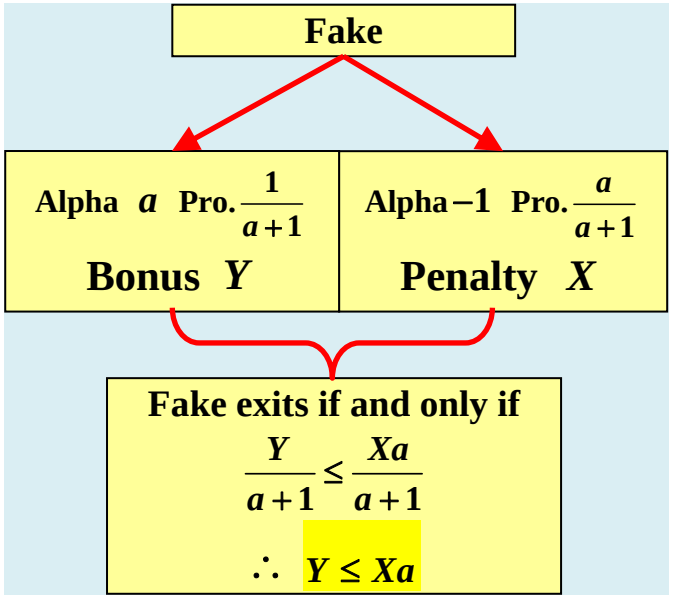
Lo (2001)

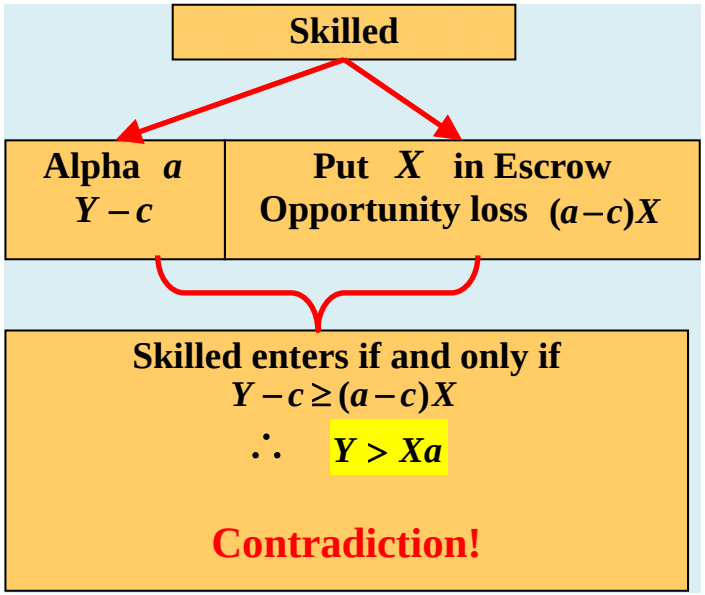


Lemon (2): Collaterals take away opportunity from skilled

Foster and Young (2008/9), Matsushima (2010 (1))

Investors' fund 1, Personal fund M, Bonus Y, Penalty (collateral) $X < 1$, Effort cost $c > 0$



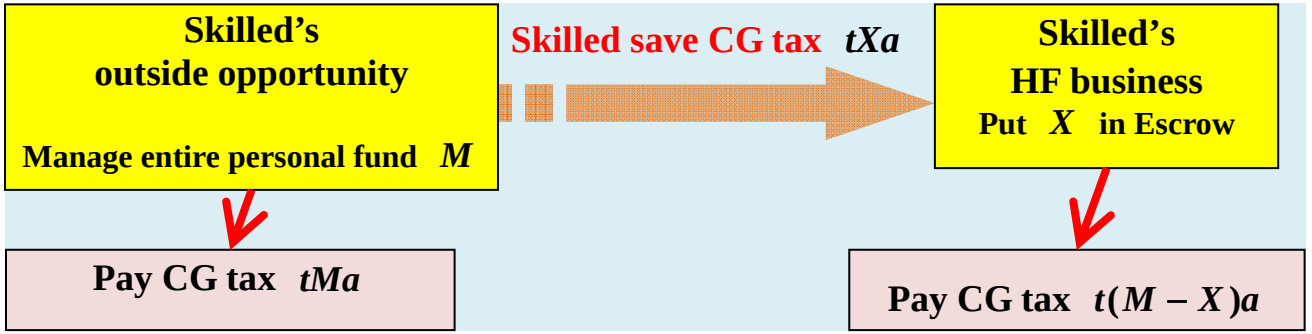


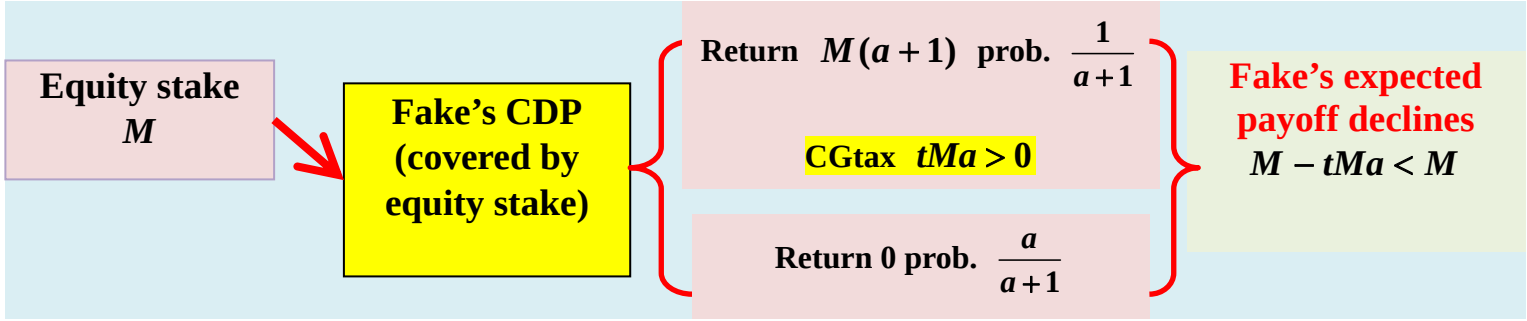
Media (FT (18/3/08), NYT (3/8/08)) says:

"Hedge funds never survive. More regulation, more transparency!"

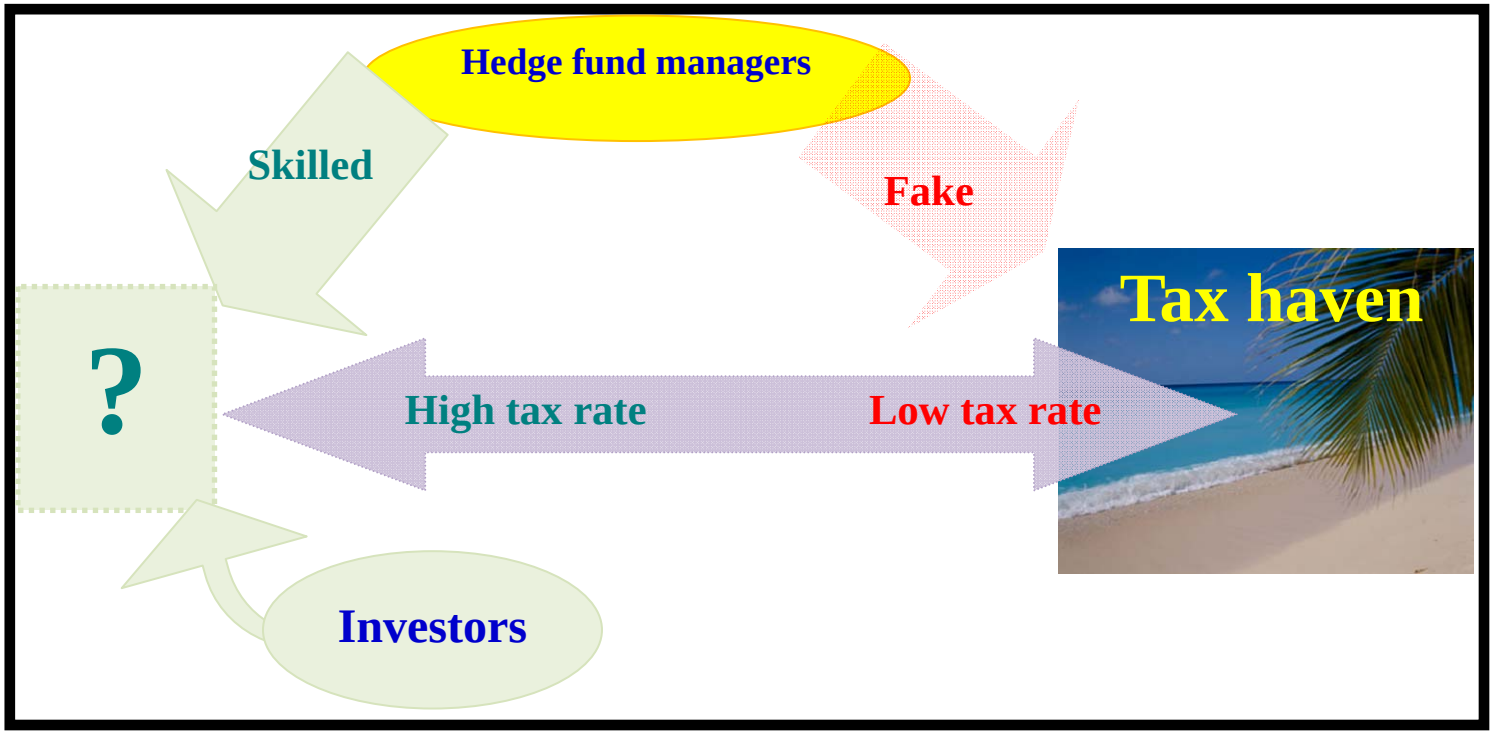
Lemon (3): Capital gain tax saves hedge funds!

Matsushima (2010 (1))

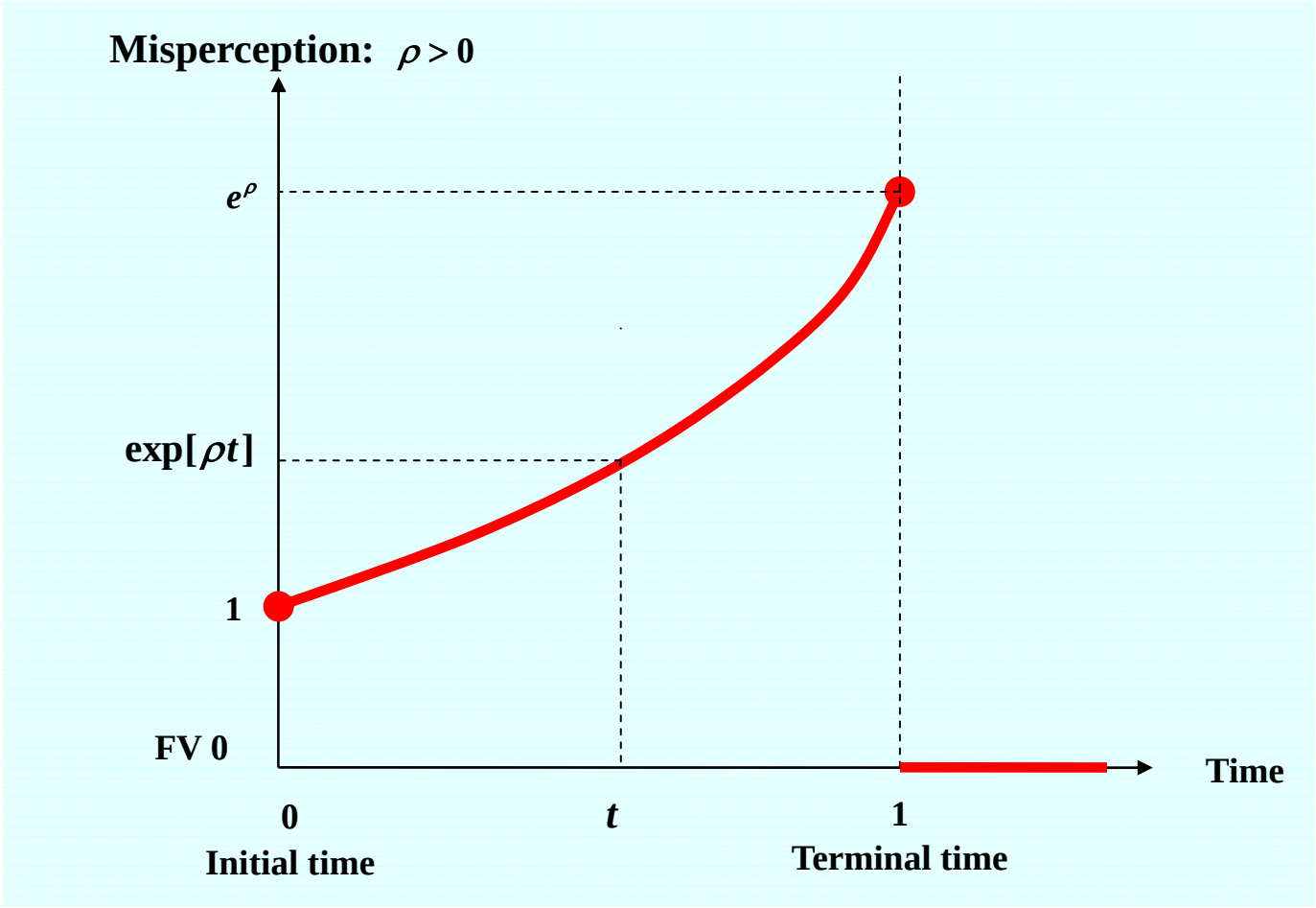




Lemon (4): Tax heaven is fake!



Bubbles (1): Masses misperceive stock value

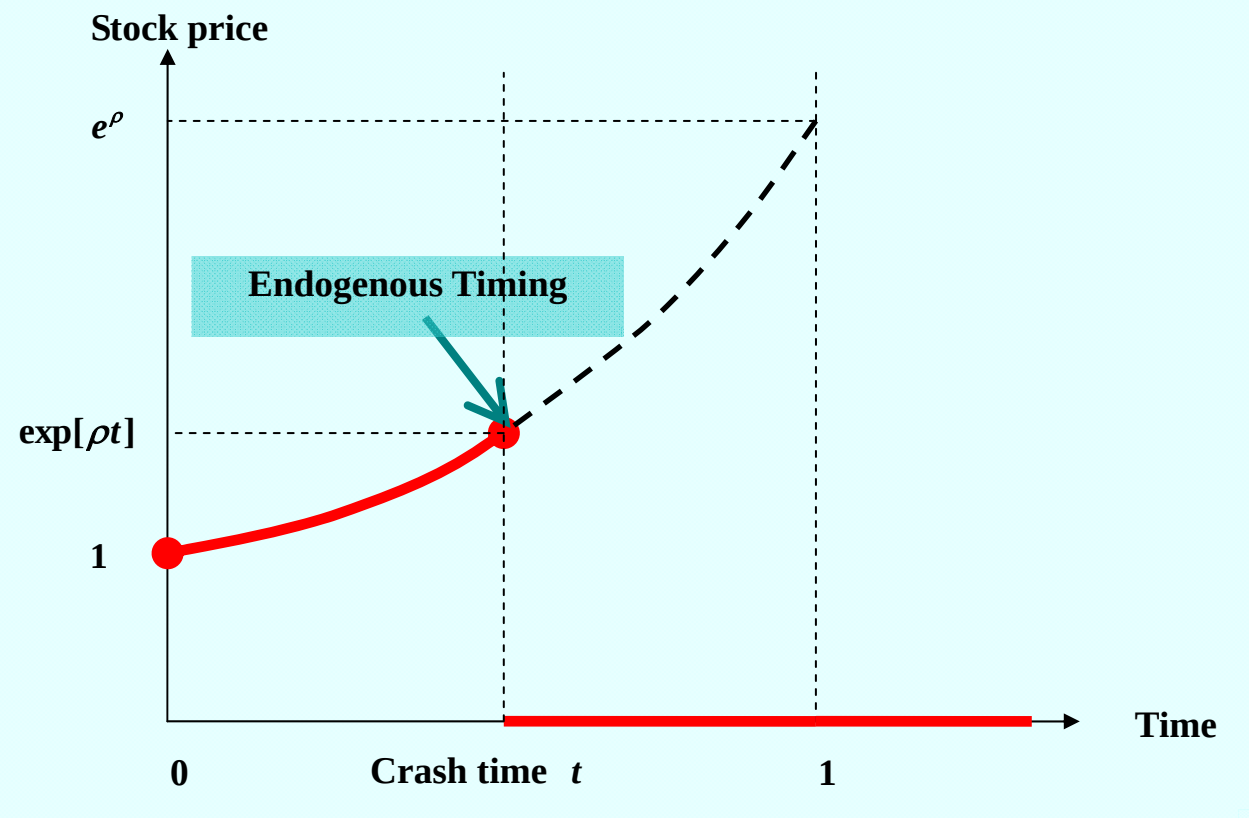


Bubbles (2): Hedge funds are “phantasy”

- **Euphoria continues as long as hedge fund keeps share *s***
- **Euphoria stops once hedge fund’s share becomes less than *s***

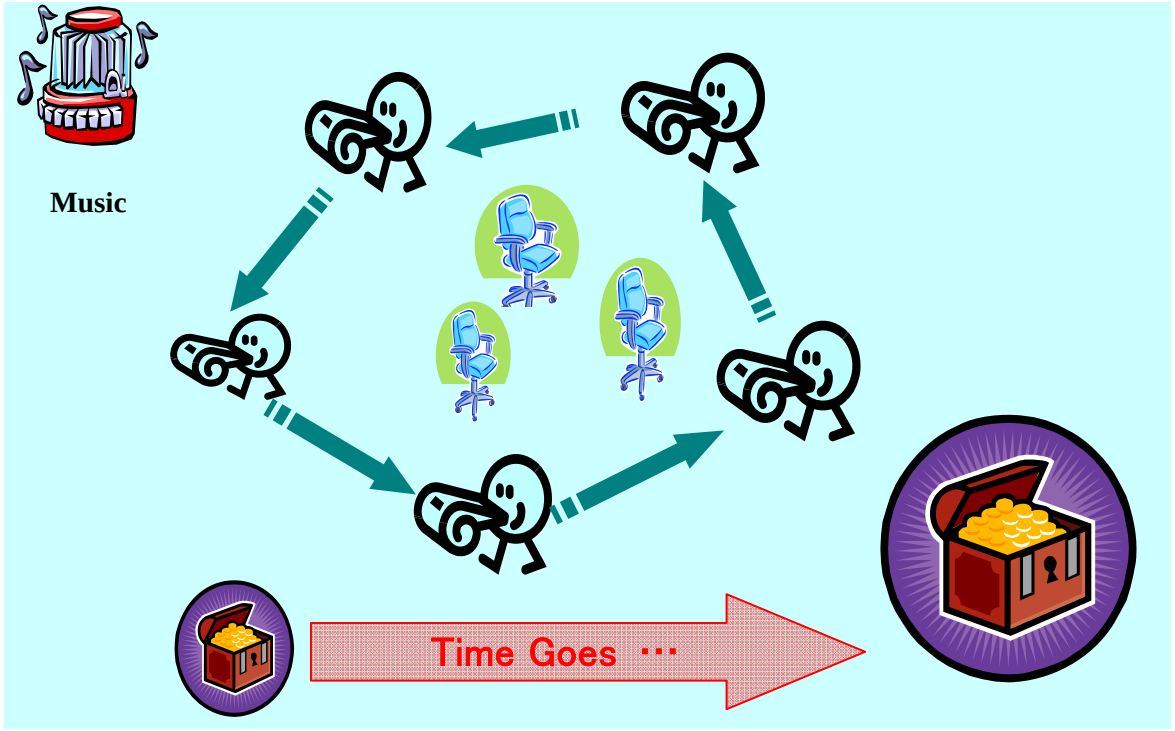
Hedge funds determine bubbles and crashes

Bubbles (3): Hedge funds time market



Bubbles (4): Market Efficiency

Money game among hedge funds quickly bursts bubbles



Bubbles (4): Even hedge funds become slave to bubbles

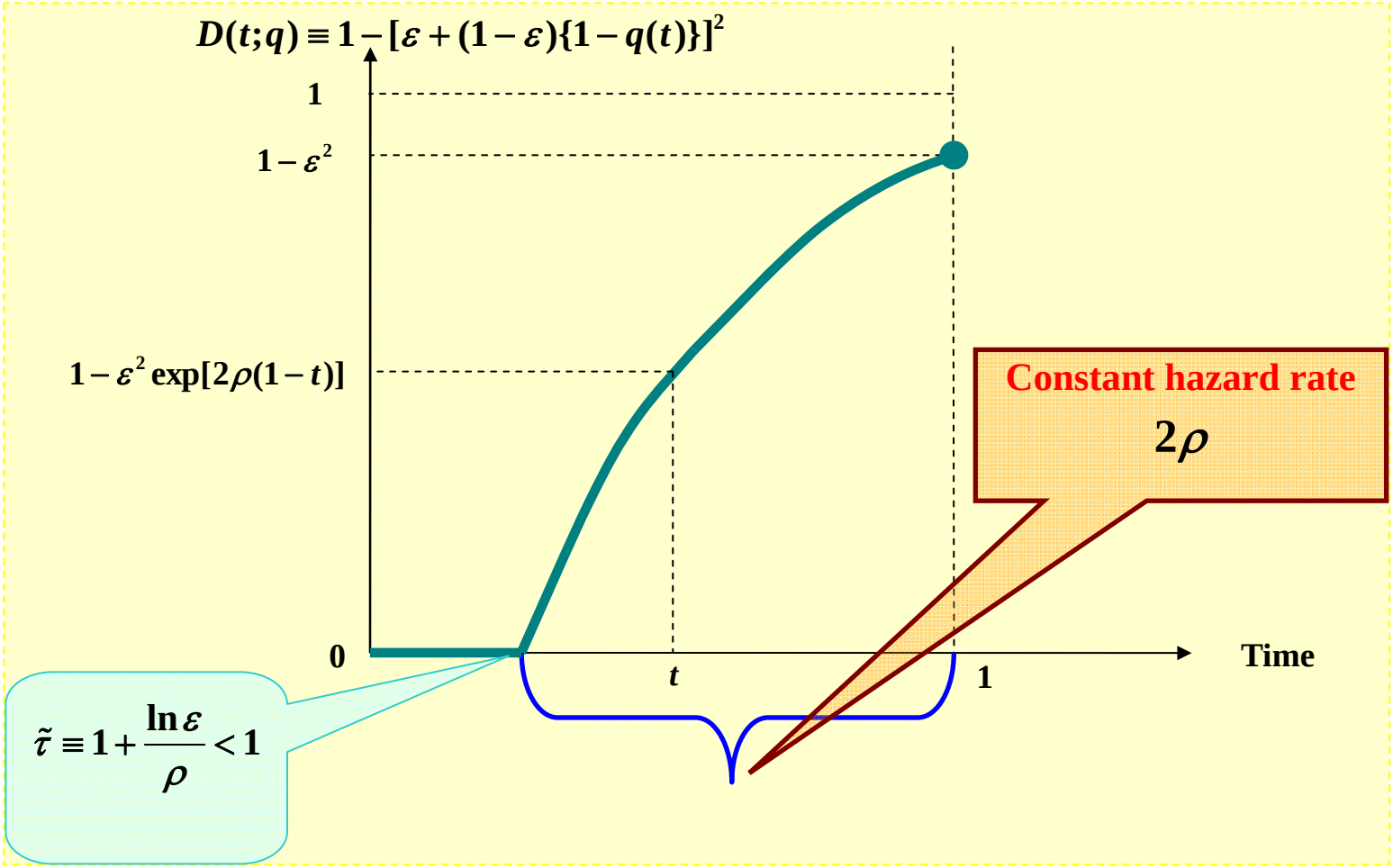
Shiller (Irrational exuberance, 2000)

Timing game with incomplete information

Matsushima (2010 (2))

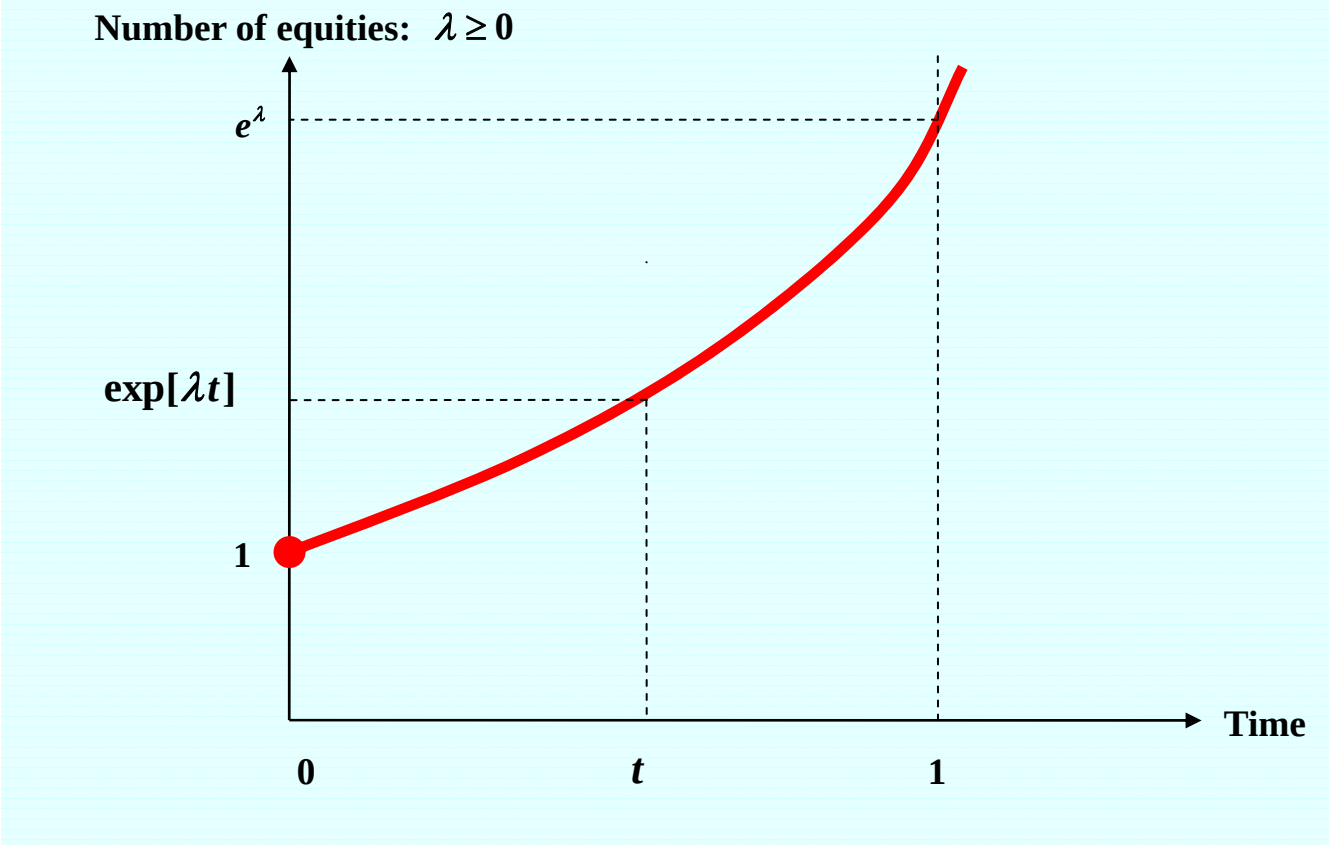
- **Rival hedge fund is rational with prob.** $1-\varepsilon>0$
- **Rival hedge fund is irrational with prob.** $\varepsilon>0$

Bubbles (5): Bubbles and crashes (two hedge funds)

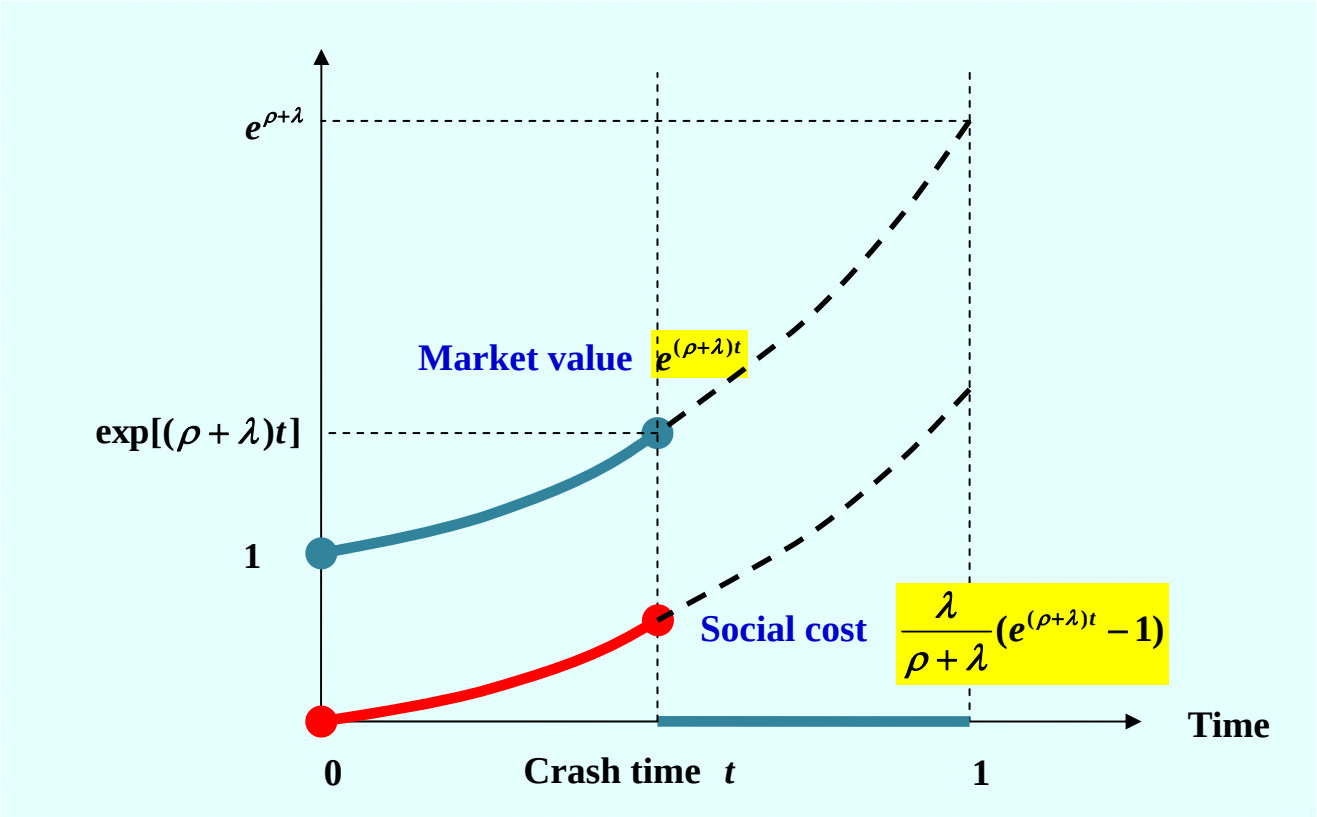


Harmful bubbles (1): Matsushima (in preparation (3))

Bubble expands by publishing stocks

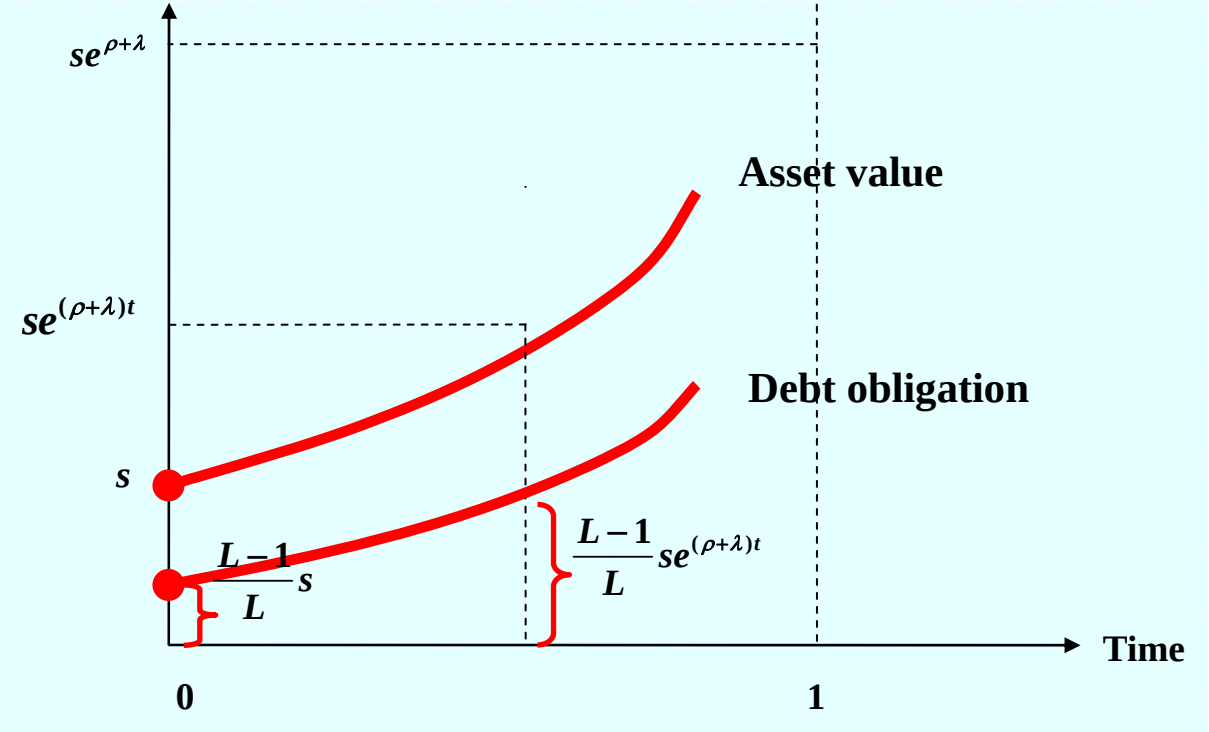


Harmful bubbles (2): Social cost expands



Harmful bubbles (3): Hedge fund buys stock by debt financing

Leverage ratio $L = \dfrac{\rho + \lambda}{\rho}$, **social cost** $\dfrac{L-1}{L}(e^{(\rho+\lambda)t} - 1)$



Harmful bubbles (4): Bubbles and crashes (two hedge funds)