Financial Market Structure and Risk Concentration

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Discussion: Chaojun Wang
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Board of Federal Reserve
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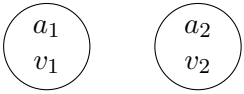
Risk Concentration

2 agents:



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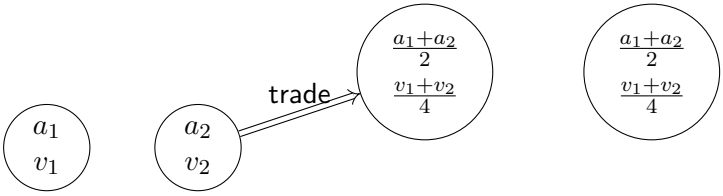

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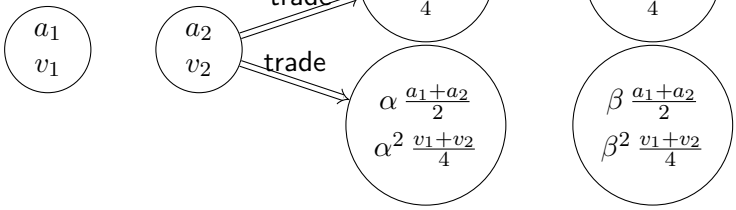

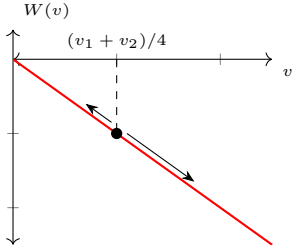

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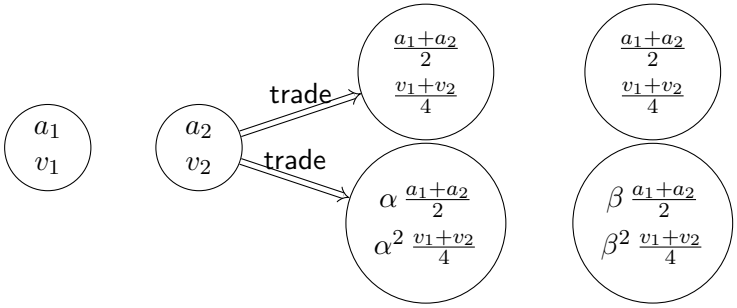

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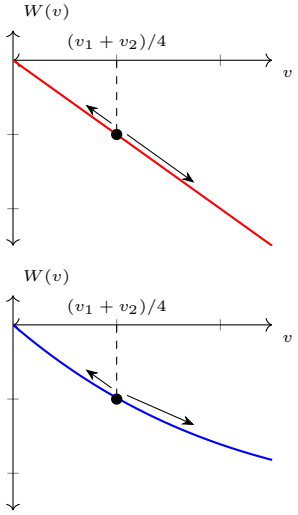

Suggestion #1: Sharpen the main result

- When W is linear/concave, outcome= risk sharing + random matching
- When W is only slightly convex, outcome= risk sharing + random matching
- When W is only sufficiently convex, outcome= risk concentration + PAM

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Reparametrize:

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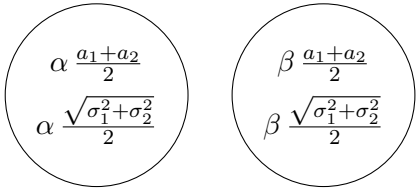

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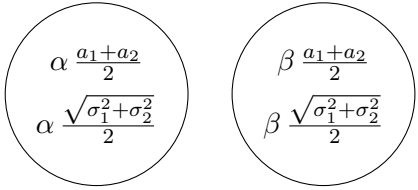

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$$\alpha \frac{\sqrt{\sigma_1^2 + \sigma_2^2}}{2} + \beta \frac{\sqrt{\sigma_1^2 + \sigma_2^2}}{2} = \frac{\sqrt{\sigma_1^2 + \sigma_2^2}}{2}$$

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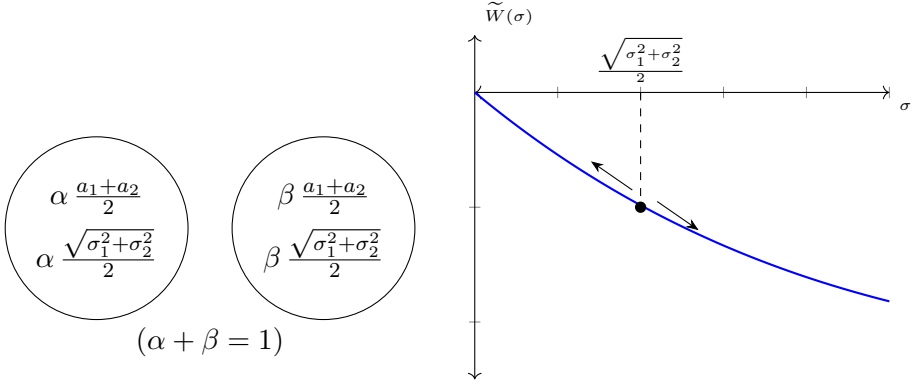

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- Extending this paper: If investors can get rid of systematic risk at a fixed cost, then more efficient to concentrate systematic risk among a small subset of investors
- How can one get rid of "systematic" risk?
- Define "systematic" risk as aggregate risk *within* the OTC segement
- Can get rid of the "OTC" risk in the larger market

Suggestion #3: Dealers hold more assets?

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- Holding greater risk = having greater position $\beta \frac{a_1+a_2}{2}$ (long/short)
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- Systematic risk = holding of the risky market portfolio

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- Main result: If investors can get rid of risk at a constant cost, more efficient to concentrate the risk among few investors
- Main suggestions:
  1. Sharpen the main result ($\widetilde{W}(\sigma) = W(v)$)
  2. Better interpretation of risk sharing (diversification across multiple multiple assets)
  3. Interpretation of risk (level of asset holding? dispersion of asset holding?)