Discussion of

Recreating the South Sea Bubble:
Insights from an Experiment in Financial History

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Asset-price bubbles in history and in the lab

- Which factors contribute to emergence of an asset-price bubble?
- Here
  - Institutional features in the case of the South Sea Bubble
  - Re-create bubble conditions in the lab
- Main results: Bigger asset price bubble if
  - distribution of new issuance proceeds to old shareholders
  - debt financing of stock purchases possible
  - perhaps: debt default/forgiveness (stat. insignificant, but $\neq$ no effect)
- Focus of my comments: interpretation of the institutional features in the experiment

Institutional features: Govt-debt for equity swap

- In 1720...
  - New issues of stock with govt. bonds as payments
  - Interest payments from bonds split between new and old shareholders
  - Old shareholders benefit if new issues **overpriced**
- In the experiment...
  - New issues of equity and distribution of 15% of **total proceeds** (per period) to old shareholders.
  - New issue takes place only if shares currently overpriced.
- Comment
  - in experiment, old shareholders benefit from **total** issue proceeds, not just from overpricing
  - this could perhaps dampen the effect on the size of the bubble because it reduces the sensitivity of the old shareholders' benefits to the magnitude of overpricing

Institutional features: Installments/debt

- Historical data (Table 1): "NPV of subscription payments relative to the market price at time of issuance".
  - i.e., Premium = NPV of subscription payments - market price?
 - Interpretation?

Subscription round	1	2	3	4
Date	14 April,	29 April,	16 June,	24 August,
Issue Price	300	400	1000	1000
Final Payment Due*	14 August, 1721	24 April, 1723	2 January, 1725	24 August, 1722
Premium**	-1 %	9.7 %	21.3 %	27.6 %

- Positive premium = default risk premium?
  - Would be relevant for experiment (where default is subsidized)
- Positive premium = financing wedge? Price premium for new issues because only new issues could be bought on installments?
  - Such a wedge did not appear in the lab (prices in Market A and B are almost identical)

Institutional features: Default

- History: To what extent were subscribers able to default? Threat of debtor's prison?
- Experiment: In NoDefault treatment, what happens if a subject (after suffering losses) has insufficient cash to pay installments?
- Experiment: Interpretation of "Default" in baseline treatment
  - Implemented as debt forgiveness for the installment debt that is still outstanding at randomly timed end of experiment (horizon).
  - i.e., not state contingent!
  - hence, does not induce convexity in the payoff to the investor
  - hence, not the same incentives for leverage-taking with as (collateralized) debt with state-contingent default

Levered Asset Purchases: Without default
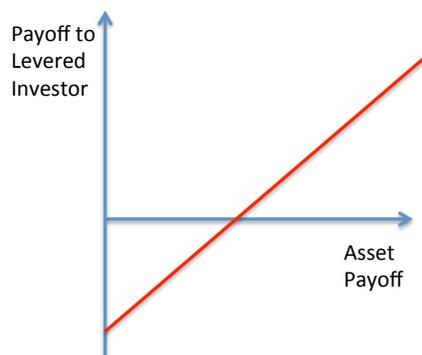
Without default, payoff to the levered investor is linear

Levered Asset Purchases: With default
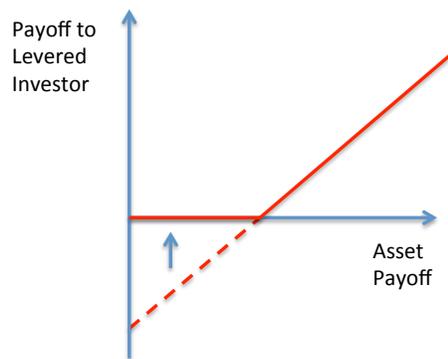
- Now default in states of bad asset payoffs
- Convex payoff to the levered investor
- Risk-shifting incentives arise (debt price should take this into account ex-ante)

Levered Asset Purchases: Baseline Treatment in the Experiment
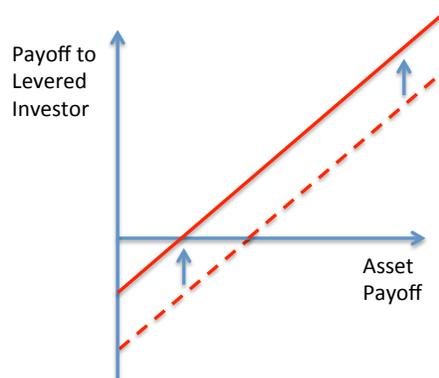
- Debt forgiven (w/ some prob.) irrespective of asset payoff state
- Payoff to investor remains linear
- Thus forgiveness is a leverage subsidy, but it does not generate risk-shifting incentives

Concluding remarks

- Ambitious undertaking: Experimental economic history
- Some questions about the economic interpretation of the institutional treatments in the experiment
- Clarification would enhance the paper
- Perhaps scope for follow-up work that considers variations on these treatments
  - e.g., Debt with (convexity-inducing) default