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*Session IV:
An Experimental Analysis of
Contingent Capital Triggering Mechanisms*

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An Experimental Analysis of Contingent Capital Triggering Mechanisms

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Introduction

- Experimental finance paper
- Three contingent capital trigger schemes – (a) regulator acting on observed prices, (b) fixed price trigger, and, (c) regulator action supplemented by prediction market
- Inefficiencies (informational and allocative) and conversion errors observed in both the regulator and fixed trigger cases, consistent with theory
- Inefficiencies and conversion errors also observed in the prediction market regime, contrary to theory
- While the fixed trigger and prediction market regimes are more informationally efficient than the regulator regime, all three schemes are marked by low allocative efficiency and high conversion error

Comments

- Theoretically well motivated (SW and BGP)

Regulator Regime	Theoretical Result
Value-increasing	No equilibrium in (3, 7)
Value-decreasing	No prices in (3, 5)
Fixed Trigger Regime	
Value-increasing	No equilibrium for θ in (3, 5)
Value-decreasing	Multiple equilibria for θ in (3, 7)
Prediction Market Regime	
Value-increasing	Unique equilibrium for every θ
Value-decreasing	Better info in (3, 5)

- Experimental method provides useful insights and validation of theory

Suggestions #1: Scope

- **Who are the holders of contingent capital?**
 - Outsiders or insiders?
 - Ownership has a bearing on whether conversions should aim to increase value or decrease it
 - Experiment is set up as a zero-sum game between contingent capital bond holders and incumbent shareholders. What if this is not the case?
 - For instance, a value-decreasing conversion for existing shareholders may also be value-decreasing for contingent capital bond holders i.e. the latter group may gain in relative terms over the former but still lose in absolute terms relative to their unconverted bond value

Suggestions #2: Scope

- **Value-increasing vs. value-decreasing**
 - Value-increasing conversions academically interesting but theoretical basis not clear
 - Should penalties for incumbents be part of policy? If so, value-increasing conversions may be incompatible with policy
 - Dropping value-increasing conversions, which account for most of the anomalies (theoretical and observed), may improve focus and results

Suggestions #3: Scope

- **Composition of existing share ownership**
 - Should value-decreasing conversions be inflicted on all existing shareholders or only insiders?
 - Insider dilution may also be a two-edged sword. Besanko and Kanatas (1996) theorize that involuntary bank recapitalizations triggered by capital deficiencies relative to a mandatory minimum norm may result in dilution and loss of (operational) efficiency
 - If conversion has differing effects based on control rights, the trading dynamics may need to be modeled differently
 - The experimental set-up does not take into account the possibilities of (a) competing interests among traders, and, (b) ability to manipulate (based on float)

Suggestions #4: Methodology

- In 2.1 (regulator regime), ambiguity exists for prices below \$3.00 also, although no errant conversions occur
- For instance a price of \$2.50 could represent the undiscounted fundamental value or a fundamental value of \$4.50 discounted by the expected loss on conversion (\$2.00)
- Trader irrationality (optimism/pessimism) is considered in 2.2 (fixed trigger regime) but not in 2.1 (regulator regime) and 2.3 (prediction market regime)

Suggestions #5: Methodology

- **Prediction market regime**

- Why do ticket prices diverge from equity prices? Could the value of the ticket in relation to the total endowment of an individual trader be related to its information content for the regulator?
- If so, the inclusion of the ticket value as a model variable in the experiment may offer interesting insights
- If regulator action is conditioned by ticket prices then traders should seek to manipulate the ticket price
- For instance, in a value-decreasing conversion, if the fundamental value is in the \$3.00 - \$5.00 range, non-conversion may be worth more than the price of the ticket for all traders, individually and collectively
- Alternatively, if equity prices are the focus of regulator action, then traders should seek to manipulate equity prices and ticket prices should be a derivative

Suggestions #6: Results

- Tabulation of predicted (theoretical) and observed (experimental) results would help
- In Figure 5, contrary to the theoretical prediction, prices are observed in the \$3.00 - \$5.00 range
- This is explained by irrational trader pessimism
- If irrational responses are invoked as an explanation, they should be uniformly included for all treatments in design and interpretation

Suggestions #7: Recommendation

- Discussion of possible remedies to improve the deficiencies noted in the trigger mechanisms considered
- Adding a prescriptive segment to the analysis would make this paper very powerful