FIN 514
Markup Pricing

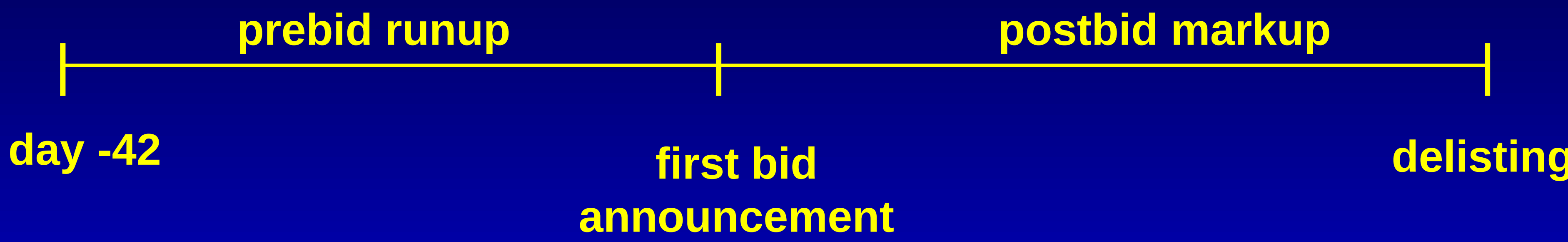
<u>Questions:</u>

Why do target stock prices rise before public offers?

Does this affect the final price of the acquisition?

Why?

Takeover Premiums Usually Include Some Period of Prebid Runup



In this example, to measure the total premium:

- a 42 trading day (two months) runup period is added to
- the price appreciation from the day of the first bid announcement through delisting

Stylized Fact (on average):
Prebid Runups = Postbid Markups

This is true for mergers, tender offers, MBOs, etc.

Two questions (at least):

- **What causes the prebid runup?**
- **How does it affect the postbid markup?**

What Causes Prebid Runup?

(1) Insider Trading -- Lisa Meulbroek (JFin '92):

- illegal insider trading accounts for (at least) half of the runup in cases where it is detected and prosecuted

unresolved issues:

(a) contagion effects -- effect of informed traders' activity on other traders' actions

- Barclay & Warner (JFE '93) posit that the market learns information from medium-sized trades
- "merger rumors" often follow unusual price & volume behavior [Pound & Zeckhauser (JBus '90)]

What Causes Prebid Runup? (cont.)

unresolved issues (cont.):

(b) What do we know about (illegal) insider trading that is not prosecuted?

- Does the SEC use the size of the prebid runup (or the postbid markup) as an input to its search for insider trading?
- size of runup shows that market learned information before the bid, perhaps from insiders' trading
- size of the markup shows that profits available to insiders from buying early

What Causes Prebid Runup? (cont.)

(2) Toehold purchases by potential acquirers

- Mikkelson & Ruback (JFE, '85) show that 13D filings (>5%) are associated with positive abnormal returns
- Jarrell & Poulsen (JLEO, '89) show that holding by the bidder (from 14D filings) are correlated with prebid runup

What Causes Prebid Runup? (cont.)

(3) Merger rumors

- Jarrell & Poulsen (JLEO, '89) show that stories in the Wall Street Journal identifying the firm as a potential target are correlated with prebid runup

- but Pound & Zeckhauser (JBus '90) show that most merger rumors (in the "Heard on the Street" column) do not lead to takeovers within 12 months
  - also, most of these stories seem to be a reaction to recent "unusual" price & volume behavior
  - is this a symptom of insider trading?

How Does Runup Affect Markup?

(1) Substitution hypothesis [Jarrell & Poulsen (JLEO, '89)]:

- since bidder can observe prebid runup, and
- its valuation of the target firm is (presumably) based on superior information, then
- final bid price should be unaffected by runup
  - perfect substitution between prebid runup and postbid markup

How Does Runup Affect Markup? (cont.)

(2) (Rational) Markup pricing hypothesis:

- takeovers are <u>not</u> best characterized as a two-person negotiation
- concern about potential competition from other bidders has a big effect on the price bidders are willing to pay
  - otherwise, why do most of the rents seem to go to the targets?

How Does Runup Affect Markup? (cont.)

(2) (Rational) Markup pricing hypothesis:

- if the bidder cannot identify the cause of the prebid runup (e.g., its own purchases of target stock to acquire a toehold position), it must take into account the prebid price of the target stock (including the runup)
  - the postbid markup is uncorrelated with the prebid runup
  - the total premium is higher by the amount of the prebid runup

How Does Runup Affect Markup? (cont.)

(3) Deal size hypothesis:

- total premium is predetermined in a given deal
- division between runup and markup is determined by the probability that the deal will occur before the first bid is announced
  - this implies that runup and markup are positively correlated (both driven by the size of the total premium)

Evidence in this paper

1,398 (all) successful takeovers of NYSE & Amex-listed target firms, 1975-91

- prebid runup for 42 days before first bid
- postbid markup from bid day to delisting
  - 1,173 cases where this period was less than 1 year
  - stock price > $2
  - equity capitalization > $10 million
- relate markup to runup to discriminate among various hypotheses

Evidence in this paper (cont.)

News events:

- 555 cases one year before first bid
- story confirmed by either target or bidder that acquisition was being discussed
- story about original 13D filing
- story saying a firm was a potential target
- story saying a firm adopts a poison pill

Insider trading cases:

- SEC prosecutions mentioned in WSJ, DJNR, Lexis (134 takeovers)

Evidence in this paper (cont.)

Auctions:

- 223 cases
- more than one bidder

Tender Offers:

- 526 cases (first bid)

Management buyouts (MBOs):

- 140 cases (mgmt part of bidder group)

Cash used as sole compensation:

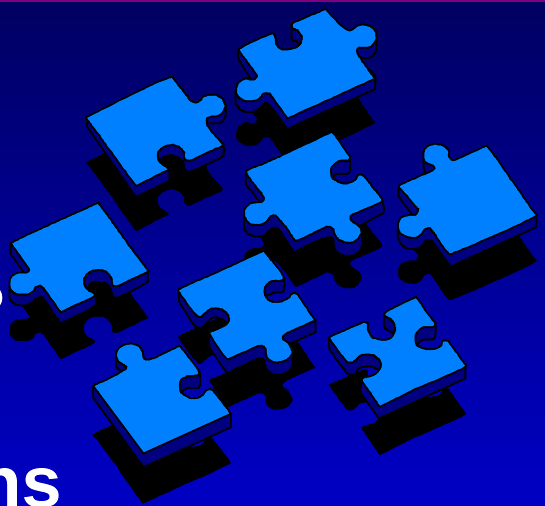
- 745 cases

Tests for Substitution

Regress Total Premium (Total) on the Runup:

- if b = 1, no substitution (markup pricing)
- if b < 1, substitution by (1-b)% of runup in terms of a lower markup
- if b > 1, consistent with "deal size" hypothesis
  - big runups and big markups go together

Markup Pricing in Mergers & Acquisitions: Conclusions



Interesting empirical puzzle:

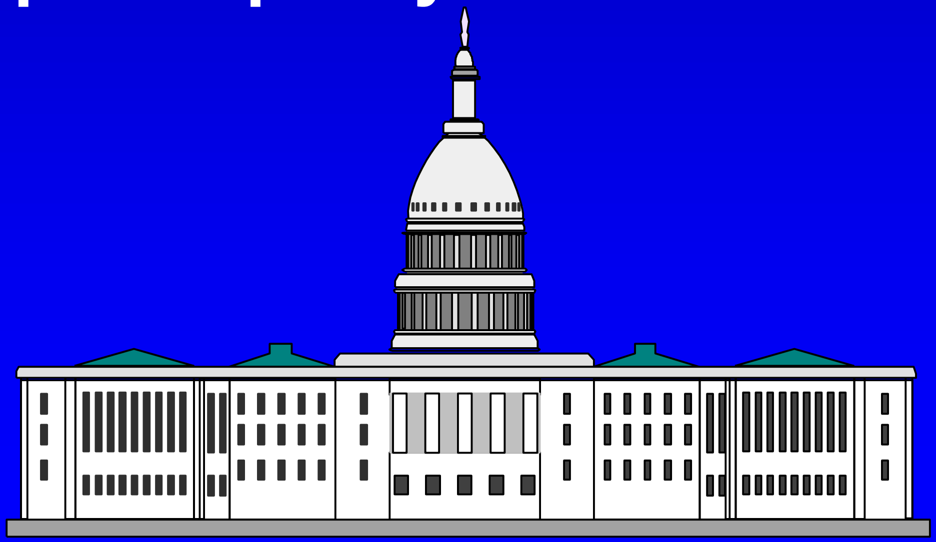
- Why don't we see more substitution?
- When merger/tender offer negotiations occur, how do they deal with the prebid runup?

Markup Pricing in Mergers & Acquisitions: Conclusions

If runup increases the cost of takeovers,

- **Who is damaged (under what circumstances)?**

- **What sort of public policy should be followed?**



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