

Deal process and competition

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- Outline

- Motivation

- Why competition is important?
 - Evidence on competition in the M&A market

- Takeover model

- The private and public takeover process
 - The model: “Negotiations under the threat of an auction”

- Empirical evidence

- Conclusion

- References

- Aktas, Nihat, Eric de Bodt, and Richard Roll, forthcoming, “Negotiations under the threat of an auction”, *Journal of Financial Economics*.
 - Boone, Audra L., and Harold L. Mulherin, 2007, “How are firms sold?”, *Journal of Finance* 62, 847–875.
 - Boone, Audra L., and Harold L. Mulherin, 2009, “Is there one best way to sell a company? Auctions versus negotiations and controlled sales”, *Journal of Applied Corporate Finance* 21, 28–37.

Motivation

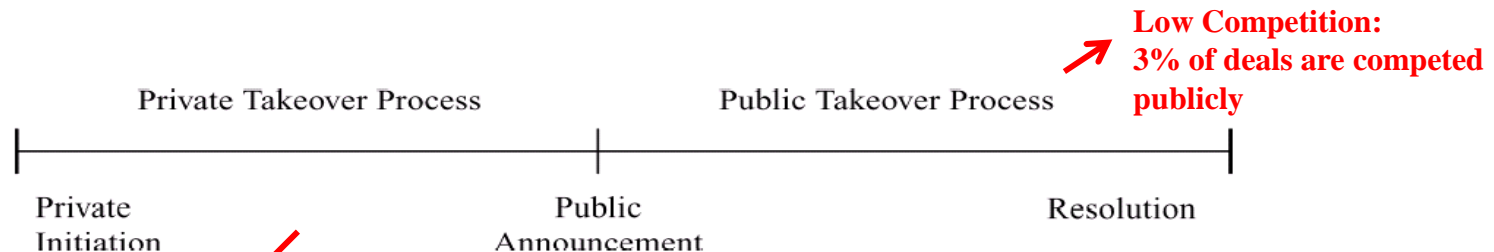
- The “market for corporate control” plays an important role in our economies:
 - It acts as an external control mechanism over incumbent managers
 - According to Manne (1965) “[...]greater capital losses are prevented by the existence of a competitive market for corporate control”
 - Competition is a key ingredient if the market for corporate control is to exert effective external control over incumbent managers
 - Competition is the key to efficient allocation of management teams

Motivation

- However, the M&A market seems NOT to display strong evidence of competition among bidders (at least ex-post)
- Large sample studies use the number of bidders that publicly attempt to acquire the target as a measure for competition
 - **Andrade, Mitchell and Stafford (2001)**
 - The average number of bidders per deal is 1.10 (period 1973-1998, U.S. sample of deals between listed companies)
 - **Moeller, Schlingemann and Stulz (2004)**
 - Only 3% of the 11,393 deals (period 1980-2002) are competed for by rival firms
 - **Betton, Eckbo and Thorburn (2008)**
 - 95% of the sample deals are single bid contests (out of 35,727 bids for public and private U.S. targets during the period 1980-2005)

Motivation

- Boone and Mulherin (2007) decompose the takeover process into two parts and report evidence on private-takeover process:



More competitive:
 -50% of auctions with multiple bidders
 -50% of negotiations with one bidder

Low Competition:
 3% of deals are competed publicly

- They build more sophisticated proxies for *explicit* competition
 - (e.g., number of contacted firms, signing confidentiality agreement, submitting formal bids)
- Half of the deals (202) are auctions, the remaining being direct bargaining with only one bidder (one-on-one negotiations)
- Target CARs and premium are not different between negotiations and auctions

➔ The lack of competition is still an issue, given the fact that 50% of the deals are **one-on-one negotiations**

The private and public takeover process

Step	Description
A. Private Takeover Process	
1. Deal Initiation	Target board considers alternatives or Target CEO and bidder CEO meet or Unsolicited bidder makes inquiries
2. Select Advisors	Target engages investment bank and legal counsel
3. Contact bidders	Target chooses number of potential bidders to contact Potential bidders also retain financial and legal advisors
4. Confidentiality/ Standstill	Bidders sign agreements to receive non-public information Also sign standstill agreement not to make unsolicited offer Initial due diligence
5. Indications of Interest	Subset of potential bidders make non-binding price offers Further due diligence; data rooms; on-site
6. Formal Private Bids	Subset of potential bidders make binding offers Request for best and final offers
7. Takeover Agreement	High bidder signs takeover agreement Includes payment method and deal protection clauses
B. Public Takeover Process	
8. Takeover Announcement	Agreement with high bidder announced
9. Public Bidding	Possible offers from other bidders
10. Approval of Deal	Regulatory and shareholder approval
11. Deal Completion	Acquisition is completed

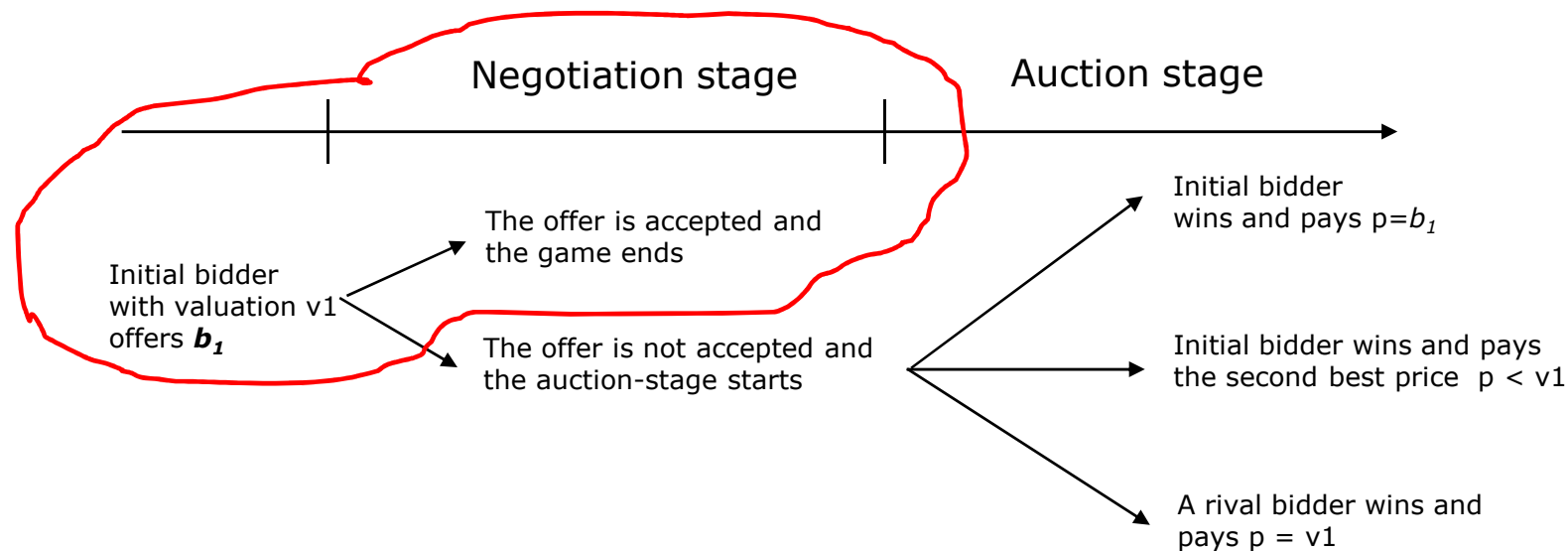
Examples of the M&A process

	Deal #1	Deal #2	Deal #3	Deal #4
A. Deal Characteristics				
Target	Embarq	Ikon Office	Wrigley	Alpharma
Bidder	CenturyTel	Ricoh	Mars	King Pharma
Size	\$5 billion	\$1.6 billion	\$23 billion	\$1.6 billion
Form	Merger	Merger	Merger	Tender Offer
Payment	Stock	Cash	Cash	Cash
B. Investment Banks				
Target	JP Morgan	Goldman Sachs	Goldman Sachs	B of A
Bidder	Morgan Stanley	Morgan Stanley	JP Morgan	Credit Suisse
C. M&A Process				
Type	Controlled Sale	Auction	Negotiation	Hostile
Initiation	5/1/2008	2/26/2008	4/1/2008	7/11/2008
Contact	5	23	1	10
Confidential	5	11	1	9
Ind of Interest	4	5	1	3
Private Bids	2	1	1	1
Public Bids	1	1	1	1
Announce	10/27/2008	8/27/2008	4/28/2008	11/24/2008
Complete	7/1/2009	10/31/2008	10/6/2008	12/31/2008
D. Deal Protection				
Termination	\$200 million	\$66.7 million	\$690 million	\$60 million

**50% of the deals:
One-on-one negotiations**

Takeover model: “negotiations under the threat of an auction”

- We consider the Betton, Eckbo and Thorburn (2009) **two-stage** takeover model framework to lay out our testable hypotheses
 - **First stage:** one-on-one negotiation initiated either by the acquirer or the target
 - **Second stage:** competitive selling procedure
- The first stage negotiation takes place under the threat of an auction



Takeover model: “negotiations under the threat of an auction”

- The threat of an auction in negotiations is not just an academic argument.
- It is frequently mentioned by financial intermediaries advising target companies

“Sometimes we advise a client to use the threat of an auction as its lever to get a reasonable deal done with the best buyer.”

Donald Meltzer (co-head of Global M&A, Credit Suisse First Boston LLC)

Source: CFO Magazine 2003

“The greatest obstacle in an auction is that strategic buyers with reasons to offer higher prices may refuse to participate. This usually occurs with companies that are market leaders in highly concentrated activities. The mere threat of an auction, however, is often enough to galvanize a strategic buyer into making a good preemptive offer.”

Brian O’Hare (partner at CoramClairfield)

Source: Clairfield Review, Third Quarter 2006

Takeover model: “negotiations under the threat of an auction”

- The model brings forward two countervailing forces
 - **Latent competition**, the likelihood that rival bidders will appear
 - **Auction costs** when negotiation fails
- We derive two empirical predictions:
 - Prediction 1.** The acquirer will propose a higher bid in the first stage negotiation when the anticipated competition is high in the second stage
 - Prediction 2.** Selling urgency (or higher anticipated auction costs) should reduce the bid premium in the initial stage negotiation

Sample description

- The initial sample includes 2,006 completed deals announced between 1994-2007
 - Both the target and the bidder are listed U.S. firms
 - The deal size is above \$100 million and the acquirer hold less than 50% before the deal, and 100% after
 - The bid premium in percentage is available in the SDC database
 - The target's and acquirer's CUSIP can be matched with CRSP data

- Identification of one-on-one negotiations
 - SEC filings are used to identify the selling procedure (14A and S-4 filings for mergers and 14D filings for tender offers)
 - Merger background section (or background of board recommendation) of the corresponding SEC filings
 - These filings contains the target board's advice to its shareholders regarding how to react to a tender or exchange offer
 - We are able to identify the selling procedure for 1,774 deals
 - Among the 1,774 deals, **847** involve one-on-one negotiations (**48%**)

Sample description

	Auctions		Negotiations		<i>p</i> -value
	Mean	<i>N</i>	Mean	<i>N</i>	
Panel A. Deal Characteristics					
→ Deal Size (\$ billions)	1.35	927	3.14	847	0.00
Relative Size	39.00%	920	49.90%	844	0.00
→ Cash - dummy	27.08%	927	14.40%	847	0.00
→ Stock - dummy	34.84%	927	52.77%	847	0.00
Panel B. Target Characteristics					
Target Size (\$ billions)	0.84	927	2.16	847	0.00
R&D Intensive Industry - dummy	28.46%	924	32.11%	847	0.09
→ Sales Concentration	63.12%	926	58.76%	844	0.00
→ Management Ownership	16.37%	927	6.61%	847	0.10
Panel C. Acquirer Characteristics					
Acquirer Size (\$ billions)	15.49	920	17.73	844	0.25

Dependent variable

- Premium:
 - The additional amount an acquirer has to offer above the pre-bid share price in order to succeed in a take-over/merger offer
- Three different measures of the premium (in percentage):

Bid Premium	The SDC four-week premium: the share price offered by the winning bidder to target shareholders deflated by the price of the target four weeks prior to the announcement date.
Actual Offer Premium	The actual offer premium is the ratio of the total consideration offered relative to the target market value estimated 42 days before the announcement date, adjusted to take into account the percentage of shares acquired.
Abnormal Return Premium	It corresponds to the sum of the target daily abnormal returns from days minus 42 to the delisting date or to day 126 relative to the announcement date. Daily abnormal returns are the residuals of the market model. The parameters of the market model are estimated over an estimation window from day minus 242 to day minus 43.

Latent competition proxies

- Liquidity index from Schlingemann, Stulz and Walkling (2002)
 - Captures the intensity of corporate asset transactions within an industry
 - It corresponds to the value of corporate control transactions during a year relative to aggregate book value of assets of firms in each two-digit SIC code
- Buyout activity
 - Private buyout funds are potential rivals in M&A transactions
 - Boone and Mulherin (2009) show that percentage of winning bids by private equity firms have risen from 6% to 30% between 2003 and 2007
 - It corresponds to the aggregate investment by U.S. private buyout funds by year divided by the aggregate NYSE, AMEX and NASDAQ market value
- Economic recessions
 - They are known to inhibit M&A activity
 - Dummy variable identifying the NBER recession in our sample period (from March 2001 to November 2001)

Selling urgency

- Target debt ratio
 - Targets under the pressure of their debt are more likely to negotiate quickly and are more willing to accept lower premium
 - ➔ It corresponds to long term debt plus current liabilities divided by total assets
- Target-initiated transactions
 - An intuitive and simple proxy to measure a target's eagerness to sell in one-on-one negotiations is to determine which party initiates the deal. When the target firm is the initiator (for whatever reason), it signals a clear willingness to sell, thereby weakening its bargaining power during the negotiations

Summary statistics

	Auctions		Negotiations		<i>p</i> -value
	Mean	<i>N</i>	Mean	<i>N</i>	
Panel A. Bid Premium	40.91%	927	40.41%	847	0.77
Panel B. Latent Competition					
Liquidity Index	5.01%	924	6.53%	847	0.00
Buyout Activity	0.18%	927	0.20%	847	0.00
NBER Recession - dummy	4.31%	927	4.96%	847	0.52
Panel C. Auction Costs					
Target Debt Ratio	20.95%	895	21.44%	803	0.62
Target-initiated dummy	60.41%	927	19.01%	847	0.00

Method

- Univariate analyses clearly show that the acquirers and targets voluntarily chose a selling procedure
 - Targets initiate 60.66% of auctions
 - Acquirers initiate 77.27% of negotiations
- The negotiation sub-sample is therefore definitively not a random sub-sample of the initial sample mixing auctions and negotiations
- We adopt the classical two-step Heckman procedure to control for this potential source of endogenous sample selection issue (see Li and Prabhala (2007))

Multivariate analysis

- Explaining the bid premium with latent competition and selling urgency

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Latent Competition Proxy</i>							
Liquidity Index	0.438 (0.01)	0.465 (0.01)	0.384 (0.04)				
Buyout Activity				42.219 (0.00)	48.666 (0.00)	40.265 (0.00)	
NBER Recession							-0.095 (0.08)
<i>Selling Urgency Proxy</i>							
Target Debt Ratio	-0.160 (0.01)			-0.166 (0.01)			-0.155 (0.01)
Target-initiated		-0.242 (0.00)			-0.286 (0.00)		
Instrument – Target-initiated			-0.321 (0.02)			-0.302 (0.03)	
<i>Control Variable</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Number of observations	572	573	425	572	573	425	572
Adjusted-R ²	9.21%	9.45%	10.22%	9.76%	10.38%	10.98%	8.34%
F-Statistic	4.35	4.49	3.60	4.64	4.98	3.90	3.91

Multivariate analysis

- Control variables

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Control Variable</i>							
Cash	0.084 (0.03)	0.086 (0.04)	0.083 (0.09)	0.096 (0.03)	0.097 (0.01)	0.104 (0.03)	0.082 (0.06)
→ Stock	-0.065 (0.03)	0.030 (0.26)	-0.041 (0.10)	-0.079 (0.01)	0.028 (0.31)	-0.058 (0.06)	-0.065 (0.02)
→ Toehold	-0.008 (0.01)	-0.007 (0.02)	-0.006 (0.01)	-0.008 (0.00)	-0.007 (0.01)	-0.007 (0.02)	-0.008 (0.00)
→ Deal Size (\$ billions)	-0.004 (0.00)	-0.002 (0.02)	-0.004 (0.00)	-0.004 (0.00)	-0.002 (0.14)	-0.004 (0.00)	-0.004 (0.00)
Related Deal	0.038 (0.08)	0.035 (0.14)	0.044 (0.05)	0.036 (0.09)	0.032 (0.18)	0.047 (0.09)	0.036 (0.09)
Acquirer to Target q Ratio	0.024 (0.12)	0.021 (0.16)	0.025 (0.12)	0.026 (0.11)	0.021 (0.18)	0.032 (0.07)	0.030 (0.07)
Target Management Ownership	-0.036 (0.02)	-0.043 (0.00)	-0.027 (0.05)	-0.022 (0.12)	-0.028 (0.03)	-0.016 (0.12)	-0.034 (0.02)
Acquirer Hubris Proxy	0.003 (0.90)	-4E-4 (0.90)	-0.001 (0.96)	-0.005 (0.86)	-0.011 (0.62)	-0.019 (0.59)	0.007 (0.73)
→ Acquirer Idiosyncratic Risk	3.377 (0.03)	3.727 (0.01)	3.847 (0.01)	4.088 (0.01)	4.531 (0.00)	4.633 (0.01)	4.358 (0.01)
St.Dev. of Acquirer EPS Forecasts	-0.002 (0.34)	-0.002 (0.30)	0.001 (0.57)	-0.001 (0.54)	-0.001 (0.66)	0.001 (0.43)	-0.002 (0.40)

Robustness check

- Alternative measures of bid premiums

Panel B. Abnormal Return Premium

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Latent Competition Proxy</i>							
Liquidity Index	0.229 (0.18)	0.252 (0.16)	0.351 (0.08)				
Buyout Activity				44.511 (0.01)	53.391 (0.00)	37.071 (0.04)	
NBER Recession							-0.102 (0.10)
<i>Selling Urgency Proxy</i>							
Target Debt Ratio	-0.071 (0.23)			-0.075 (0.21)			-0.058 (0.29)
Target-initiated		-0.364 (0.00)			-0.417 (0.00)		
Instrument – Target-initiated			-0.597 (0.00)			-0.582 (0.00)	
<i>Control variables</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Number of observations	543	544	415	543	544	415	543
Adjusted-R ²	6.39%	7.82%	9.06%	7.49%	9.41%	9.45%	6.46%
F-Statistic	2.78	3.46	3.07	3.30	4.24	3.22	2.81

Robustness check

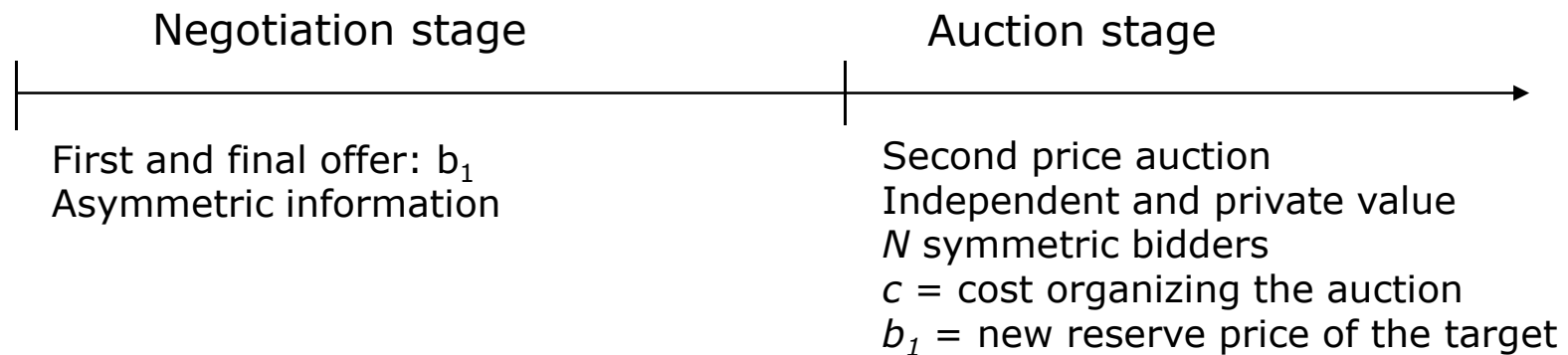
- Alternative measures of bid premiums

Panel A. Actual Offer Premium							
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Latent Competition Proxy</i>							
Liquidity Index	0.587 (0.00)	0.618 (0.01)	0.697 (0.00)				
Buyout Activity				18.862 (0.08)	27.515 (0.01)	27.322 (0.08)	
NBER Recession							-0.110 (0.04)
<i>Selling Urgency Proxy</i>							
Target Debt Ratio	-0.090 (0.09)			-0.103 (0.08)			-0.087 (0.15)
Target-initiated		-0.389 (0.00)			-0.404 (0.00)		
Instrument – Target-initiated			-0.646 (0.00)			-0.619 (0.00)	
<i>Control Variables</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Number of observations	572	573	425	572	573	425	572
Adjusted-R ²	6.73%	9.11%	13.52%	5.29%	7.78%	11.88%	5.40%
F-Statistic	3.36	4.68	5.37	2.60	3.94	4.63	2.66

Conclusion

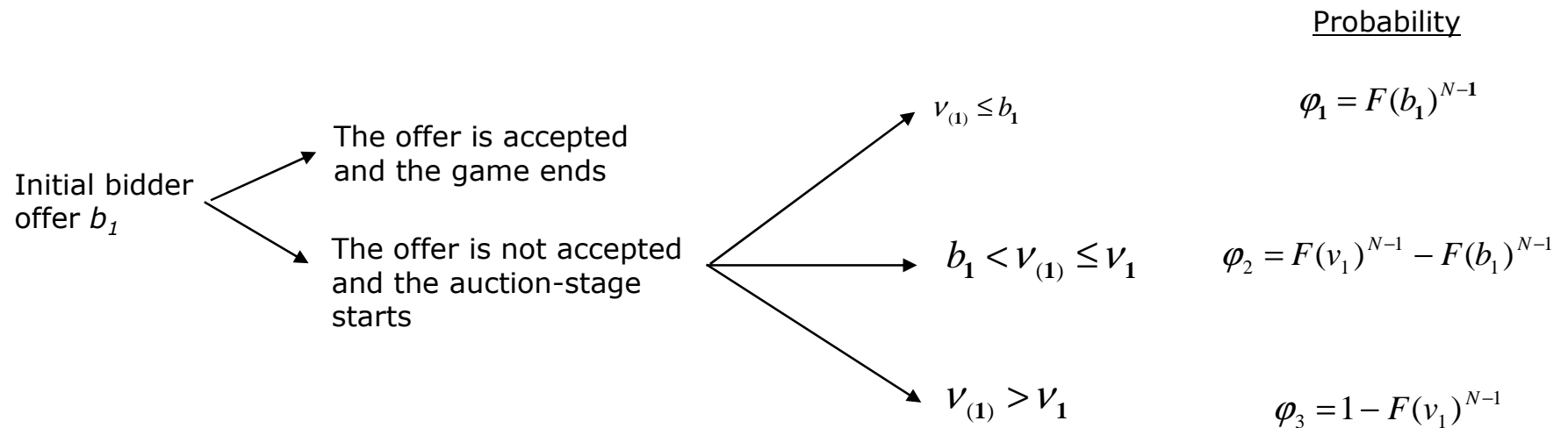
- Competition is essential for the efficient allocation of management teams among firms
- However, observable competition seems to be low and almost absent for half of the deals
- We emphasize the effect of *ex-ante* competition and auction costs on the bidding behaviour of the acquirer in the first stage negotiation
- Our empirical analysis suggests that
 - the M&A market is fairly competitive, because target shareholders receive a reasonable premium even in one-on-one negotiated deals
 - auction costs explain why some targets accept the lower premium of the first stage negotiation

APPENDIX



Two possible outcomes

Three possible outcomes



Determinants of target-initiation and the selling procedure

This table reports two probit models using the initial *SEC Filings* sample that mixes auctions and negotiations.

Panel A. Determinants of target-initiation (dummy = 1 for target-initiated deals, 0 otherwise)

Variable	Coefficient	<i>p</i> -value
Institutional Ownership	-0.631	0.00
Institutional Shareholding Concentration	0.739	0.02
Target Tobin's <i>q</i> Ratio	-0.065	0.01
Target Return On Assets	0.418	0.19
Target Sales-based Growth Rate	0.013	0.81
<i>LR</i> Statistic	37.11	0.00
% Correct Prediction	59.88%	
Number of observations	1,179	

Panel B. Determinants of the selling procedure (dummy = 1 for one-on-one negotiations, 0 otherwise)

Variable	Coefficient	<i>p</i> -value
R&D Intensive Industry	-0.091	0.32
Relative Size	0.166	0.05
Acquirer Size	7E-10	0.45
Stock Payment	0.539	0.00
Target-initiated	-1.046	0.00
Industry Count	-0.105	0.00
Target Sales Concentration	-0.312	0.04
<i>LR</i> Statistic	262.14	0.00
% Correct Prediction	69.13%	
Number of observations	1,179	