

Anchor Investors in IPOs

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Outline

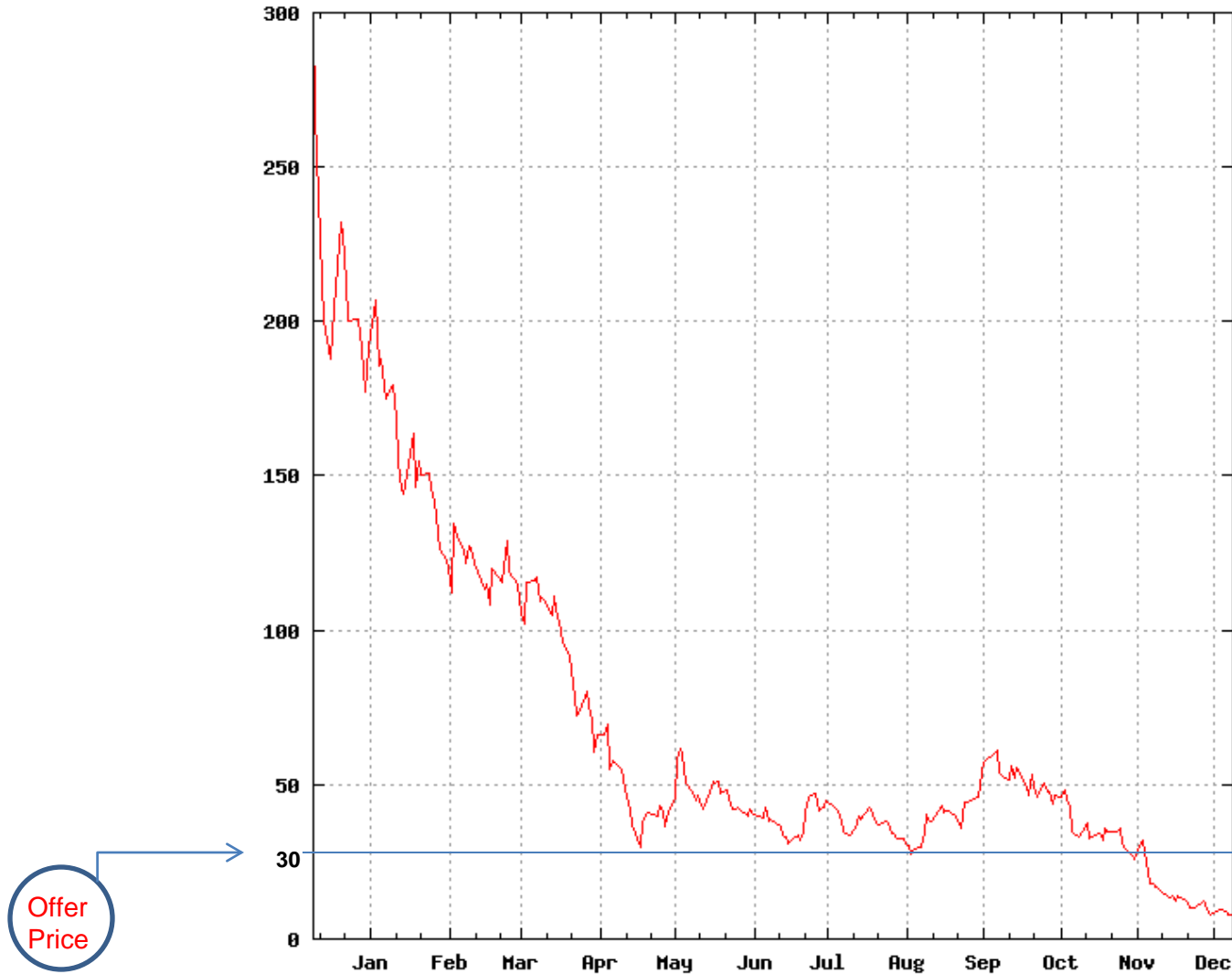
- Motivation
- Research agenda
- Data and Results
- Conclusion

IPOs and IPO Pricing

- Key step in firm lifecycle
- IPO pricing is critical
 - Issuing firm
 - Insiders
 - Outsiders
- Pricing accuracy lowers uncertainty

VA Linux

LINUX stock price (09-Dec-1999 through 09-Dec-2000)



Alternative IPO Mechanisms

- Fixed Price
 - India
- Auction
 - Pure – France
 - Dirty Dutch – India
 - Discriminatory/Uniform price: Taiwan/Singapore
- Bookbuilding
 - India, USA, UK

Key Mechanisms: Summary

	Fixed Price	Auction	Bookbuilding
Ex ante Information			Road Show
Initial Price	Fixed	Reserve?	Price Band
Investor Interest	Bidding	Bidding	Book of Interest
Final Price		Market Clearing	Limited Discretion
Share Allocation	Proportional	Proportional	Discretion

Motivation:

Should Underwriters Control IPO Allocation?

- Can improve pre-market price discovery
 - Benveniste and Spindt (1988)
- But these powers are a recipe for cronyism and corruption
 - Allocations are secret. Underwriters can do what they please with no formal oversight.
 - This secrecy lets underwriters control enormous rents
 - \$135 billion in US, 1980-2012
- How are allocation powers used in practice?
 - Very little data due to secrecy of books.

Research Questions 1

- Implications of giving underwriters allocation powers
- Extends insights in Bubna and Prabhala (JFI, 2011)
 - They have data on Indian IPO share allocations
 - Findings:
 - Allocation powers are used extensively
 - Allocations depend not just on bid but also on bidder types (FII, MF, FI)
 - Allocation powers improve pre-market price discovery
- **Current research**
 - Implication of discretion with transparency in share allocation
 - Data from a unique type of “sunshine” bookbuilding
 - Marquee (“anchor”) investors’ identity and allocations **visible** to all public bidders

Research Questions 2

- **This research**

- We now have allocation powers **with transparency**
 - Marquee (“anchor”) investors’ identity and allocations ***visible*** to all next-stage public bidders
- This mechanism is probably what regulators want.
 - Reduces cronyism
 - Yet gives flexibility in allocation that underwriters want for bookbuilding.
- Same set of questions
 - Pricing and price discovery
 - We want to build a structural model of auctions to generate right counterfactuals.

Literature: Brief Review

- Theoretical lit – stylized
 - Benveniste and Spindt (1988)

- Empirical lit – sparse
 - Cornelli and Goldreich (2001, 2003)
 - Jenkinson and Jones (2004)

Why Indian IPOs?

- Laboratory
- Distinctive IPO process
- No possibility of cronyism in retail segment, who potentially play only an information role

Bookbuilding in India

- Pre- Nov. 2005:
 - Bookbuilding with allocation discretion (“dark” bookbuilding)
- Post- Nov. 2005 to present:
 - Bookbuilding without allocation discretion (Dirty Dutch)
- Post- July 2009 to present:
 - Bookbuilding with anchors, followed by Dirty Dutch (anchor-backed bookbuilding) – “sunshine bookbuilding”

Anchor-backed Bookbuilt IPO

Features

- Stage 1 Bookbuilding
 - Price band and available shares announced
 - Anchor institutional investors submit bids
 - Price is determined
 - Underwriters allocate shares with discretion
 - Announce anchor names, shares allocated and price
- Stage 2 Dirty Dutch
 - Offering open to the public
 - Bids submitted and price determined
 - Allocation done proportionally
 - Anchor investors pay $\text{Max}(\text{Stage 1 price}, \text{Stage 2 price})$

Anchor-backed IPO – key rules

- Anchors – institutions (QIBs)
- Maximum anchor allocation - 30% of QIB bucket
 - At least one-third to domestic mutual funds
- Minimum # Anchors
 - 2 for issue size up to Rs. 2500 million
 - 5 for larger issue size
 - *REVISED?*
 - Max 2 if issue < 100m,
 - (2,5] if issue (100m, 2500m], with minimum allocation Rs. 50m/anchor
 - (6, 25] if issue > 2500m
- Anchor lock-in for 30-days from allocation date

Empirical Agenda

- Descriptive analysis of IPO book
 - This is useful given the limited data on IPO allocations.
 - # “anchors,” identity of anchors, allocation across anchors.
- Relation to subsequent bidding, underpricing, volatility, and long-term returns.
- Heterogeneity
 - How bookbuilding is implemented matters.
- Counterfactual analyses
 - Anchor versus non-anchor bookbuilding
 - Sunshine versus dark bookbuilding

Data

- IPOs offered from 2009-2012
- Prime database
 - IPO date, issue size, price band, oversubscription
 - Pricing method, IPO grade, underwriters' names
 - Anchor names, allocation and price
- CMIE Prowess
 - Financials and stock prices
 - Bulk and block deals

Indian IPO Market

	Anchor BB	Non-anchor BB
2009	5	11
2010	30	35
2011	6	31
2012	8	3
TOTAL	49	80

Summary Statistics

Anchors

	# Obsv	Mean	Median	Min	Max
<i>Panel A: Individual bidders</i>					
→ # Anchors	49	10.55	8.00	2	36
Avg Bidder Allocation	49	16.20%	12.50%	2.78%	50.00%
HHI of Bidder Allocation	49	0.23	0.18	0.05	0.64
<i>Panel B: Bidders by Type</i>					
# FIIs	49	5.10	4.00	0.00	20.00
# Mutual Funds	49	5.04	3.00	0.00	19.00
# Banks	49	0.08	0.00	0.00	1.00
{ % FII anchors	49	54.70%	50.00%	0.00%	100.00%
{ % MF anchors	49	41.77%	45.00%	0.00%	100.00%
Avg Type Allocation	49	53.91%	50.00%	25.00%	100.00%
→ HHI of Type Allocation	49	0.63	0.55	0.34	1.00

Anchor Investors

Funds versus Families

Anchor	Family
AXIS MUTUAL FUND-AXIS EQUITY FUND	AXIS
AXIS MUTUAL FUND-AXIS INCOME SAVER	AXIS
AXIS BANK LTD.	AXIS
TREE LINE ASIA MASTER FUND (SINGAPORE) PTE.LTD.	TREELINE
T.ROWE PRICE INTERNATIONAL STOCK FUND (MANAGED BY T.ROWE PRICE INTERNATIONAL INC.)	TROWE
T.ROWE PRICE INTERNATIONAL DISCOVERY FUND (MANAGED BY T.ROWE PRICE INTERNATIONAL INC.)	TROWE
EMERGING MARKETS GROWTH FUND INC.	ASHMORE
EMSAF-MAURITIUS (MANAGED BY EMERGING MARKETS MANAGEMENT LLC)	ASHMORE

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# Banks	49	0.08	0.00	0.00	1.00
% FII anchors	49	54.70%	50.00%	0.00%	100.00%
% MF anchors	49	41.77%	45.00%	0.00%	100.00%
Avg Type Allocation	49	53.91%	50.00%	25.00%	100.00%
HHI of Type Allocation	49	0.63	0.55	0.34	1.00
<i>Panel C: Bidders by Family</i>					
# Unique Fund Families	49	6.86	6.00	2.00	20.00
Avg Family Allocation	49	21.56%	16.67%	5.00%	50.00%
HHI of Family Allocations	49	0.27	0.23	0.07	0.64
Avg Family Rank (by # IPOs)	49	12.10	5.00	1.00	50.00
Avg Family Rank (by \$ IPOs)	49	24.20	18.00	1.00	81.00
Top Family (by # IPOs)	49	0.76	1.00	0.00	1.00
Top Family (by \$ IPOs)	49	0.61	1.00	0.00	1.00
Investor-Manager	49	0.10	0.00	0.00	1.00
Investor-Manager Count	49	0.31	0.00	0.00	5.00

Univariate statistics

Anchor versus non-anchor BB

	Anchor BB	Non-anchor BB
Proceeds (Rs. million)	4,182	1,002
Age	11	13
Underwriter reputation	0.69	0.39
Average IPO grade	3.43	2.37
Pricing – Top Band	0.55	0.78
Oversubscription – All	7.13	3.73
Oversubscription – QIB	8.06	1.88
Oversubscription – Retail	2.53	3.74
Underpricing	5.88%	2.25%
1-year Returns	-27.44%	-50.28%
Volatility (30 days)	39.30%	54.60%

Regressions 1

Underpricing

	All (1)	All (2)	All (3)	Large=0 (4)	Large=1 (5)	Reputed=0 (6)	Reputed=1 (7)
ANCHOR IPO	0.000 (0.00)	0.032 (0.59)	-0.002 (-0.04)	0.005 (0.04)	0.007 (0.15)	-0.051 (-0.70)	0.038 (0.54)
OVRSUB			0.117*** (4.36)	0.129*** (3.37)	0.073*** (3.55)	0.149*** (4.83)	0.049 (0.83)
REPUTED		-0.064 (-0.87)	-0.070 (-0.98)	-0.156 (-0.68)	-0.017 (-0.35)		
PROCEEDS		-0.010 (-0.39)	-0.021 (-0.81)	0.035 (0.27)	-0.011 (-0.61)	-0.042 (-0.66)	0.004 (0.13)
TOP BAND		0.098* (1.67)	-0.043 (-0.57)	-0.169 (-1.03)	0.047 (0.98)	-0.102 (-0.84)	0.047 (0.43)
AGE		0.007 (0.19)	-0.012 (-0.32)	-0.016 (-0.20)	-0.010 (-0.42)	0.006 (0.11)	-0.007 (-0.23)
RATING		0.033 (1.08)	-0.007 (-0.24)	-0.006 (-0.08)	0.026 (0.91)	-0.017 (-0.33)	0.062 (1.41)

- Anchor IPOs not priced differently in the short-run.

Regressions 2

Oversubscription

	All (1)	All (2)	All (3)	Large=0 (4)	Large=1 (5)	Reputed=0 (6)	Reputed=1 (7)
Dep. Variable:	Oversub total	Oversub QIB	Oversub Retail	Oversub QIB			
ANCHOR IPO	0.288 (1.36)	0.547** (2.43)	-0.146 (-0.76)	1.104*** (2.78)	0.200 (0.84)	1.003*** (2.98)	0.215 (0.78)
REPUTED	0.055 (0.26)	0.090 (0.39)	-0.011 (-0.05)	-0.878** (-2.51)	0.422* (1.72)		
PROCEEDS	0.093 (1.07)	0.272*** (3.05)	-0.206** (-2.61)	0.581** (2.08)	-0.006 (-0.04)	0.289 (1.66)	0.248** (2.13)
TOP BAND	1.212*** (9.27)	1.115*** (7.10)	0.887*** (7.53)	0.245 (0.98)	1.551*** (7.09)	1.026*** (4.20)	1.290*** (5.49)
AGE	0.159 (1.48)	0.171 (1.38)	0.008 (0.08)	-0.206 (-1.08)	0.259* (1.99)	-0.130 (-0.67)	0.445*** (3.04)
RATING	0.347*** (3.07)	0.435*** (3.55)	0.317*** (2.86)	0.460** (2.36)	0.338** (2.25)	0.348** (2.02)	0.410* (1.82)
# Obsv	128	127	128	64	63	78	49
Adj R-2	0.418	0.520	0.308	0.386	0.610	0.439	0.523

- Anchors stimulate bidding by QIBs.
- Effect stronger in more opaque IPOs.

Regressions 3

Long-term Returns

	All (1)	All (2)	All (3)	Large=0 (4)	Large=1 (5)	Reputed=0 (6)	Reputed=1 (7)
ANCHOR IPO	0.225** (2.11)	0.121 (1.09)	0.105 (0.94)	0.536** (2.16)	-0.021 (-0.17)	0.315* (1.72)	-0.012 (-0.10)
OVRSUB			0.050 (0.74)	-0.028 (-0.24)	0.119 (1.06)	-0.038 (-0.40)	0.238** (2.24)
REPUTED		0.104 (0.74)	0.100 (0.71)	-0.002 (-0.01)	0.064 (0.45)		
PROCEEDS		-0.113* (-1.77)	-0.118* (-1.83)	-0.329 (-1.28)	-0.047 (-0.60)	-0.197 (-1.40)	-0.091 (-1.23)
TOP BAND		-0.124 (-1.03)	-0.186 (-1.19)	-0.303 (-0.89)	-0.214 (-0.88)	-0.243 (-0.94)	-0.328* (-1.72)
AGE		0.134 (1.57)	0.127 (1.50)	0.130 (0.73)	0.104 (1.24)	0.150 (0.97)	0.050 (0.63)
RATING		0.196** (2.45)	0.178** (2.07)	0.247 (1.52)	0.102 (0.99)	0.198 (1.50)	0.154 (1.22)

- Anchors are associated with superior long-term returns in opaque IPOs.

Regressions 4 Volatility

	All (1)	All (2)	All (3)	Large=0 (4)	Large=1 (5)	Reputed=0 (6)	Reputed=1 (7)
ANCHOR IPO	-0.409*** (-7.36)	-0.116** (-2.15)	-0.106** (-2.09)	-0.284** (-2.34)	-0.028 (-0.40)	-0.208** (-2.44)	-0.017 (-0.26)
OVRSUB			-0.034 (-1.01)	0.015 (0.30)	-0.050 (-0.84)	-0.009 (-0.22)	-0.072 (-1.32)
REPUTED		-0.058 (-0.91)	-0.056 (-0.89)	0.078 (0.49)	-0.095 (-1.50)		
PROCEEDS		-0.099*** (-3.40)	-0.095*** (-3.27)	-0.089 (-0.71)	-0.066** (-2.11)	-0.100 (-1.25)	-0.076*** (-3.44)
TOP BAND		0.086 (1.43)	0.127 (1.52)	0.147 (1.00)	0.109 (0.79)	0.141 (1.01)	0.127 (1.22)
AGE		-0.059 (-1.42)	-0.053 (-1.32)	-0.068 (-0.78)	-0.024 (-0.67)	-0.070 (-0.99)	-0.026 (-0.71)
RATING		-0.102*** (-2.96)	-0.090** (-2.29)	-0.101 (-1.24)	-0.078* (-1.73)	-0.087 (-1.24)	-0.045 (-1.28)
# Obsv	129	128	128	65	63	79	49
Adj R-2	0.220	0.434	0.434	0.064	0.229	0.236	0.268

- Anchor-backed IPOs have lower market-adjusted 1-month volatility, especially in more opaque IPOs.

Counterfactuals (if instead of Anchor BB?)

	Anchor vs Non-anchor Bookbuilding			Sunshine vs Dark Bookbuilding		
	# Obsv	Mean	Median	# Obsv	Mean	Median
Underpricing	49	0.059	0.050	49	0.059	0.050
Counterfactual underpricing	48	0.025	0.020	49	0.139	0.222
<i>Difference</i>		0.031	0.047*		-0.080***	-0.100***
t-stat / z-stat		1.199	1.733		-3.091	-2.770

- Transparency in book appears to lower underpricing.

Regressions 5

Type of anchor matters - oversubscription

	(1)	Oversubs-TOTAL		(4)	Oversubs - QIB	Oversubs - Retail
	(1)	(2)	(3)	(4)	(5)	(6)
TOTAL FAMILY	0.112*** (2.91)	0.008 (0.14)	0.022 (0.39)	0.030 (0.65)	0.011 (0.27)	0.026 (0.70)
FII ANCHORS	-0.805 (-1.64)	-0.544 (-1.04)	-0.625 (-1.19)	0.304 (0.60)	0.571 (1.20)	-0.270 (-0.59)
EXCESS MF	0.005 (0.02)	0.180 (0.60)	0.254 (0.82)	-0.124 (-0.35)	-0.061 (-0.19)	-0.249 (-0.64)
→ ALLOC_HHI		-3.926*** (-2.78)	-3.854*** (-2.70)	-5.164*** (-3.71)	-5.700*** (-4.40)	-3.019** (-2.27)
→ TOP FAMILY		-0.014 (-0.04)	-0.006 (-0.02)	0.396 (1.42)	0.509* (1.93)	0.016 (0.06)
INVESTOR_MNGR			-0.467 (-0.94)	-0.071 (-0.20)	0.065 (0.21)	-0.173 (-0.61)
REPUTED				-0.310 (-1.23)	-0.307 (-1.27)	-0.256 (-0.94)
→ PROCEEDS				-0.699*** (-3.39)	-0.648*** (-3.40)	-0.624*** (-3.32)
AGE				-0.351* (-1.75)	-0.299 (-1.44)	-0.363** (-2.42)
RATING				0.225 (1.21)	0.133 (0.80)	0.331* (1.74)
#Obsv	49	49	49	48	48	48
Adj R-2	0.212	0.289	0.290	0.500	0.518	0.381

• Anchor-backed IPOs with

- Less concentrated allocation
- Smaller offering
- Top family participation

} → Greater oversubscription (retail, QIB)

} → Greater oversubscription (QIB)

Regressions 6

Type of anchor matters - underpricing

	(1)	(2)	(3)	(4)
→ TOTAL FAMILY	0.016*** (3.13)	0.008 (1.16)	0.014 (1.60)	0.016** (2.42)
→ FII ANCHORS	-0.192*** (-2.86)	-0.174** (-2.48)	-0.208*** (-3.23)	-0.095* (-1.75)
EXCESS MF	0.016 (0.40)	0.029 (0.63)	0.060 (1.20)	-0.017 (-0.30)
ALLOC_HHI		-0.284 (-1.10)	-0.253 (-1.04)	0.096 (0.36)
TOP FAMILY		-0.004 (-0.07)	-0.001 (-0.01)	0.046 (0.93)
→ INVESTOR_MNGR			-0.200*** (-2.92)	-0.148*** (-2.93)
→ OVRSUB				0.087*** (4.41)
REPUTED				0.013 (0.18)
PROCEEDS				-0.063* (-1.83)
AGE				0.013 (0.42)
RATING				-0.004 (-0.18)

- Anchor-backed IPOs that have

- Fewer unique investor families
- Connected investor-underwriter

} → Lower underpricing

Flipping

	# Obsv	mean	p25	p50	p75
<i>Panel A: IPO level</i>					
% of IPO's anchors in trading market - all IPOs	49	7.69%	0.00%	0.00%	12.50%
% of IPO's anchors in trading market - IPOs with ≥ 1 trading anchor	20	18.83%	10.56%	18.33%	22.88%
% of aggregate anchor shares sold - IPOs with ≥ 1 trading anchor	20	17.02%	0.00%	0.00%	38.33%
% of aggregate anchor shares sold, net of purchases - IPOs with ≥ 1 trading anchor	20	-21.24%	-44.29%	-16.03%	18.09%
<i>Panel B: Anchor Investor level</i>					
# days between listing date and trading date (sell or buy)	28	206	0	1	339
% of an anchor's shares sold in first transaction (only sell)	9	346.06%	111.59%	229.19%	388.14%
% of an anchor's shares sold in first transaction (net of purchases)	27	-131.36%	-277.11%	-129.89%	82.73%
% of an anchor's shares sold in second transaction (net of purchases)	1	-463.91%	-463.91%	-463.91%	-463.91%
# days between first possible selling date and actual trading date (only sell)	7	242	107	275	343
# days between first possible selling date and actual trading date (positive net sale)	5	262	143	298	343
<i>Panel C: Family level</i>					
# days between listing date and trading date (sell or buy)	44	219	0	9	344
% of a parent's shares sold in first transaction (only sell)	15	408.38%	89.04%	191.36%	388.14%
% of a parent's shares sold in second transaction (only sell)	3	626.78%	266.61%	470.59%	1143.15%
% of a parent's shares sold in first transaction (net of purchases)	37	-101.69%	-509.47%	-129.88%	133.25%
% of a parent's shares sold in second transaction (net of purchases)	7	88.46%	-463.91%	-100.91%	470.59%
# days between first possible selling date and actual trading date (only sell)	12	351	92	287	514
# days between first possible selling date and actual trading date (positive net sale)	8	311	75	221	398

- Little evidence of anchor flipping after lock-in period.

Conclusion

- IPO pricing is critical.
- Bookbuilding is the dominant IPO mechanism.
- Key feature: allocation discretion, usually secret
- Unique experiment in transparent bookbuilding in India.

- Data reveal that
 - Anchor-backing induces more bidding.
 - Anchors do not appear to create short-run bubbles in IPOs.
 - Anchors lower volatility.
 - Many effects greater for opaque IPOs.
 - There is little flipping after the lock-in period.

- Anchor identity matters.
 - Anchor reputation and affiliation with underwriter related to better IPO outcomes.

Conclusion

- In progress
 - Measures of anchor quality
 - IPO books from “dark” and “sunshine” bookbuilding
- To be done
 - Structural model of bidding
- This work in progress. We seek and welcome comments.

Motivation

Bookbuilding

- Pricing of proposed offering is critical
 - Lowers cost of capital for issuers
 - Lowers uncertainty post-issue for issuers and investors
 - Lowers speculations and bubbles

- Bookbuilding mechanism is dominant.

Motivation

Bookbuilding Process

- Underwriter arranges a road show to build a book of business
- Set final price
- Allocate shares
- Trading starts
- Underwriters are initially the dominant market-makers and provide analyst coverage after a quiet period (≈ 25 days)

Bookbuilding in India

- Pre- Nov. 2005:
 - Bookbuilding with allocation discretion (“dark” bookbuilding)
- Post- Nov. 2005 to present:
 - Bookbuilding without allocation discretion (Dirty Dutch)
- Post- July 2009 to present:
 - Bookbuilding with anchors, followed by Dirty Dutch (anchor-backed bookbuilding)

Anchor-backed Bookbuilt IPO

Features

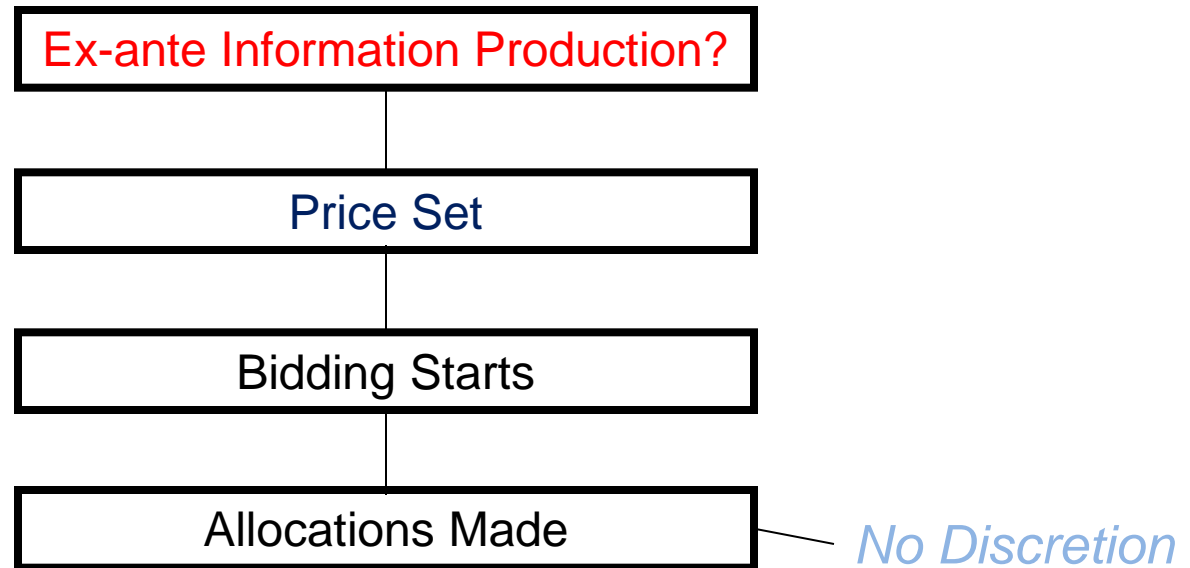
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Anchor-backed Bookbuilt IPO

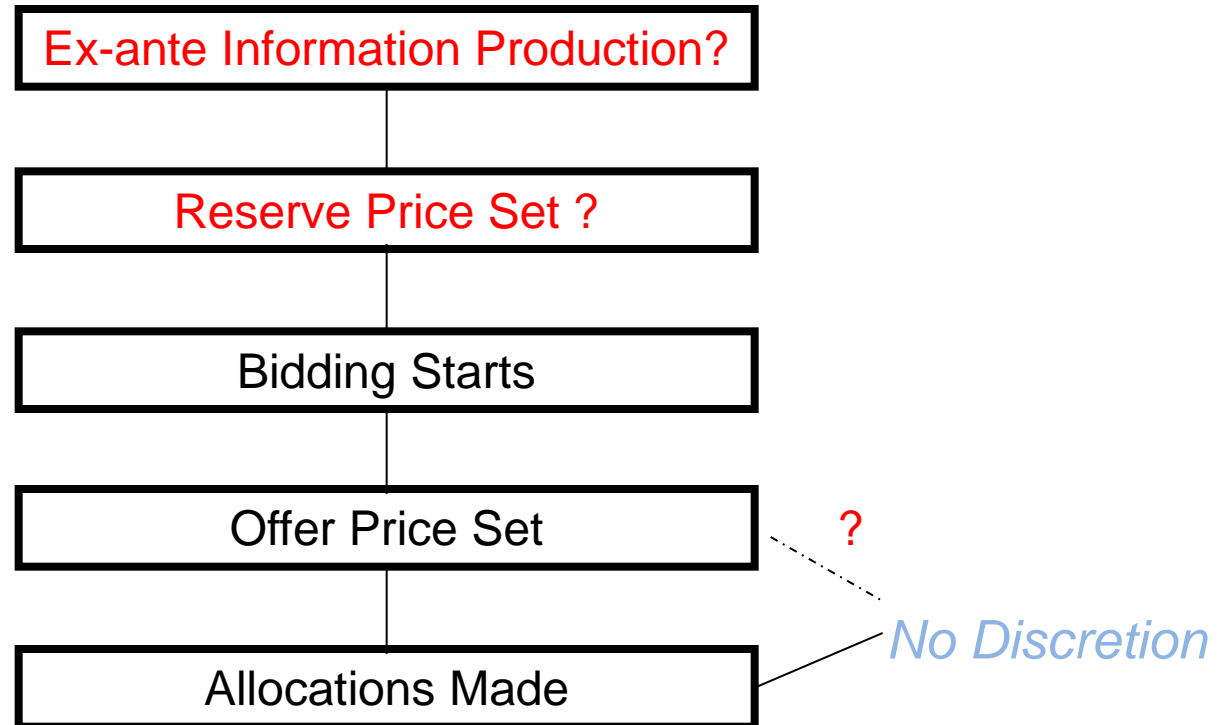
Key features

- 2 key features:
 - Transparency of book (“sunshine”)
 - Price announced after stage 1

Mechanism: Fixed Price

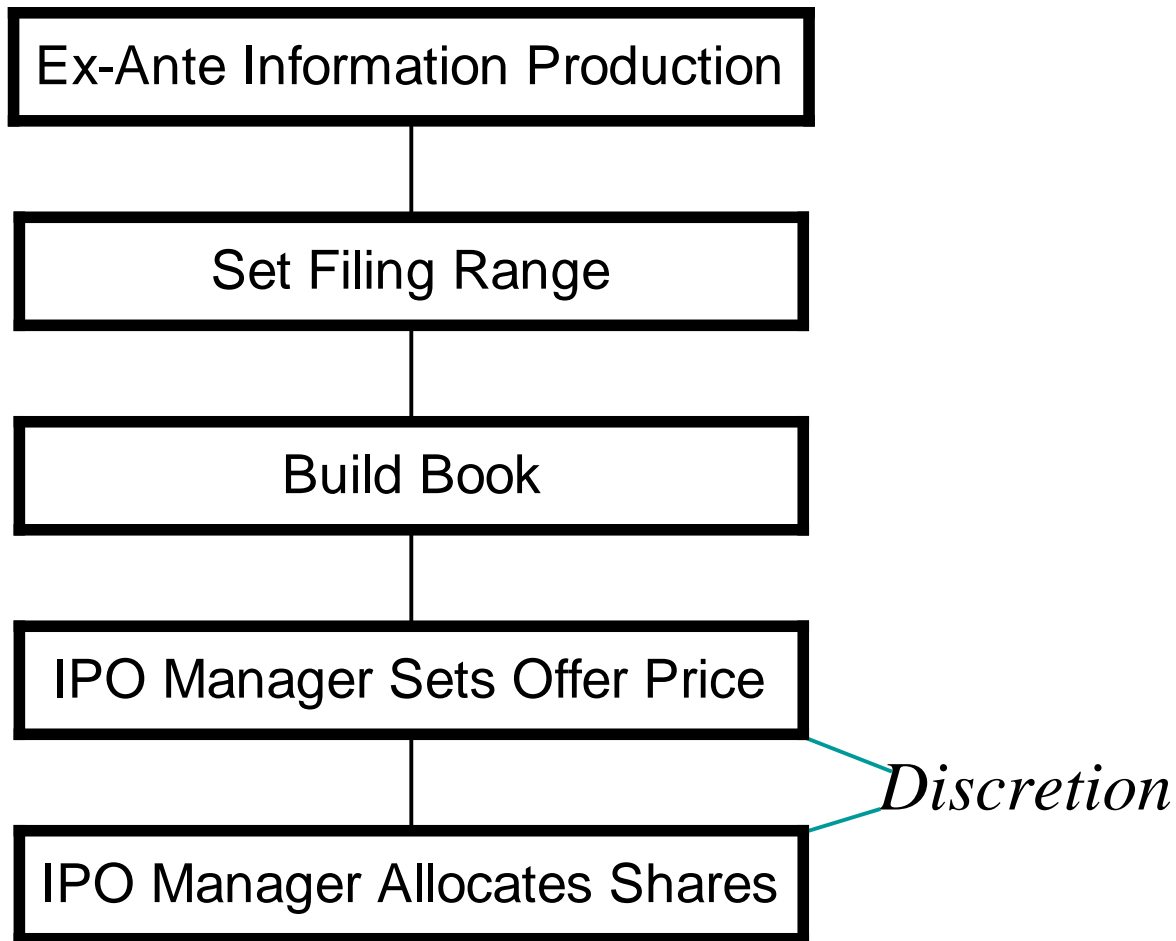


Mechanism: Auction



Market-based, Transparent , ***Bidder Anonymity***

Mechanism: Bookbuilding



Anchor-backed IPO – time line

