Purchasing IPOs with commissions: Theoretical predictions and empirical results

Michael Goldstein (Babson)
Paul Irvine (U Georgia)
Andy Puckett (U Missouri)

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Discussion brought to you by
Jonathan Reuter (U Oregon)
Tale of Two (Other) Papers

• Reuter (2006)
  • **Findings:** annual commissions paid by mutual fund family \( j \) to lead underwriter \( k \) in year \( t \) predict \( j \)'s holdings of \( k \)'s hot IPOs
     \( \implies \text{long-term business relationships influence IPO allocations} \)
  • **Shortcomings:** reported holdings proxy for allocations; cannot distinguish between ex ante and ex post commission payments

• Nimalendran, Ritter, and Zhang (2006)
  • **Findings:** TAQ data reveal that short-term trading in 50 most liquid stocks is related to level of IPO underpricing
     \( \implies \text{short-term trading commissions influence IPO allocations during “bubble”} \)
  • **Shortcomings:** no direct evidence on who earns the brokerage commissions or who receives the IPO allocations
What Does This Paper Do?

• Develops model to reconcile existence of both long-term and short-term investors in equilibrium

• Uses Abel/Noser trade execution database to explore role of short-term traders in 769 IPOs between 04.01.99 and 12.31.01

  • Examines aggregate commission payments to lead underwriters in days surrounding hot and cold IPOs

  • Tests whether commissions from short-term trading influence IPO allocations
The Model

- **Challenge:** “short-term and long-term views of IPO allocation seem paradoxical”

- **Response:** Static optimization problem that takes L-T investors as given and considers allocation to S-T

- **Intuition:** If L-T investors catch lead allocating too many shares to S-T investors, L-T reduce future commissions; threat (and probability of being caught) limits role of S-T

- Reminds me of the “Fidelity Rule”:
  
  *When allocating IPOs, give Fidelity all the shares they request or twice as much as anyone else… or else*
The Model (cont.)

• I’m not sure the “paradox” merits a model
  • One large payment = good substitute for lots of little payments
  • Robertson Stephens used commissions paid over past 18 months to rank investors, but gave more weight to more recent payments ⇒ investors can sort themselves into L-T and S-T
  • May be constraints on magnitude of S-T trades ⇒ role for L-T relationships
  • L-T relationships about more than IPOs (Goldstein et al, 2006)

• I like hypothesis that more concentrated L-T client bases are more likely to catch and punish allocations to S-T investors but I’d like it just as much without the model
## Leads Receive More Commissions

**Table 1**

<table>
<thead>
<tr>
<th>Top 10 Brokers</th>
<th>Commissions per Day</th>
<th>Commission per Share</th>
<th>Above Average Commission per Share?</th>
<th>Lead Underwriter?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merrill Lynch</td>
<td>583121</td>
<td>0.036</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>561572</td>
<td>0.034</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Salomon Smith Barney</td>
<td>508253</td>
<td>0.033</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>494777</td>
<td>0.034</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CSFB</td>
<td>477495</td>
<td>0.036</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>B-Trade</td>
<td>423475</td>
<td>0.020</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Sanford Bernstein</td>
<td>377455</td>
<td>0.067</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lehman Brothers</td>
<td>360482</td>
<td>0.035</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bank of America</td>
<td>332070</td>
<td>0.034</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bear Stearns</td>
<td>287491</td>
<td>0.035</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>0.033</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Based on trades by 609 institutions in Abel/Noser, between 01.01.99 & 03.31.02.
Analysis of Commissions

• Analysis at IPO-level while daily commissions measured at lead underwriter-level
• Break IPOs into quartiles based on money left on table
  • Clustering of underpricing through time ⇒ quartiles reflect different time periods
• Positive correlation between money left on the table, offer size, and commission payments to leads (T2)
• Focus on Commissions/Day, Comm./Share, Trades/Day, and frequency of Comm. > $.10/Share (T3 & T4)
  • Comm./day = Comm./Share x Shares/Trade x Trades/Day
  • Do Shares/Trade increase? Leave no stone unturned…
### Commissions – Univariate

**Tables 3 & 4**

<table>
<thead>
<tr>
<th>Days Since IPO</th>
<th>Commissions per Day</th>
<th>Trades per Day</th>
<th>Commission per Share</th>
<th>Frequency Commission &gt; $0.10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>-20 to -11</td>
<td>+</td>
<td>−</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-10 to -1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+1 to +10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+11 to +20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-20 to +20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Q4 is top quartile of IPOs based on money left on the table.
Univariate Findings and Caveats

• Estimate commission payments to lead underwriters increase by $1.7 million in 10 days before a hot IPO
  • Small compared to both $221 million left on table and $22 million in underwriting fees for average IPO in Q4
  • Lack of excess commission payments for Q2 & Q3 suggest role of short-term traders unique to bubble period

• CSFB alleged to have received ex post commissions, some as high as $3.15 per share
  • Evidence of ex post payments in sample of CSFB’s 101 IPOs but no evidence of high per-share commissions
  • Important Caveat: high per-share commission trades are “both readily identifiable and apparently illegal” ⇒ institutions may not have sent them to Abel/Noser for analysis
Commissions – Multivariate

Table 5

- Regress abnormal commissions \([t-10,t-1]\) on Profits, HHI, Offer Size, Scarcity, and two year dummies
  - Abnormal commission scaled by non-event comm.
  - Profits = actual first-day return + \((\text{offer} - \text{mid}) / \text{mid}\)
    - Why not treat as two separate variables?
  - HHI = concentration of commission client base
- Commissions decrease with HHI (in all 8 spec.) and increase with Profits (in control sample)
  - Control sample restricted to 309 IPOs that fall outside \([-10,-1]\) of event window of lead’s other IPOs
Calendar Time?

• Clustering of IPOs at lead underwriters through time ⇒ event dates are contaminated
  • Using execution data before 04.01.99 and after 12.31.01 to calculate non-event commissions ignores IPOs that occurred
  • Control sample approach not fully satisfying

• I’d like to see a calendar time specification
  • Aggregate across IPOs so that unit of observation is total commissions paid to lead underwriter \( k \) on day \( t \)
  • Define profits as total profits of all IPOs during \([t+1, t+10]\)
  • Replace year fixed effects with month fixed effects
  • Add lead underwriter fixed effects (or cluster on lead?)
Commissions and Allocations

Table 6

• Most of the paper asks whether lead underwriters receive elevated commissions around hot IPOs

• Table 6 examines relative importance of L-T and S-T commission business in securing IPO allocations
  • IPO allocations do not appear as trades. However, if institution sells shares it didn’t purchase, shares likely from IPO allocation

• Find evidence L-T and S-T both influence allocations, but that S-T most important for small institutions

• “Small institution” defined based on payments from institution $j$ to underwriter $k$. Why not use all trades?

• Should make some effort to control for bookbuilding
Things I’d Still Like to Know

• Do lead underwriters lose market share in post-bubble period?

• Do lead underwriters whose allocations respond more to S-T commissions lose more long-term relationships?

• Do lead underwriters that receive greater fraction of commissions from S-T investors leave more money on table / allow more underpricing? (Model assumes no.)

• Can you say anything about who the S-T traders are?
  • CalPERS vs. Putnam vs. Vanguard vs. Hedge Funds?
  • L-T traders with other lead underwriters?

• What stocks do S-T traders chose to trade?
Conclusions

• Should you read this paper? Yes, but more for empirical results than theoretical predictions

• Provides new, more direct evidence on role of short-term trading dollars in IPO allocations
  • Incremental commissions focus on $[t-10, t-1]$  
  • Little evidence of ex post or high per-share payments  
  • Composition of L-T client base matters

• Need to place more emphasis on multivariate analysis and better control for clustering