Discussion of:

Why Don't Issuers Get Upset About Leaving Money on the Table

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SFS Conference

April 15, 2000

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Outline

1. Microsoft IPO
2. Empirical Findings
3. The Model
4. Additional Emprical Evidence.

Microsoft's IPO – Timeline

- **February 3:** Microsoft (w/ Goldman and Alex Brown) file a preliminary prospectus with the SEC, citing a price range of $16-$19.
  - "The underwriters suggested a price range of $17-$20. Gates insisted on, and got, $16-$19."
- **February 18-27:** Microsoft (including Gates) presents to investors in 8 cities.
- The DOW passes 1700 at the end of February.
  - VW index return for February is 7.3%.
- **March 6:** Goldman suggests an offering price $20-$21, saying that they expect the stock to open at $25.
- **March 12:** Microsoft, Goldman agree on an offering price of $21.
- **March 13:** Microsoft opens at $25.75, closes at $27.75. First day volume is 2.5 million shares.

Negotiating Microsoft's Offer Price

On March 10:

> Eff Martin of Goldman, who had flown up to Seattle that morning, had good news. The "book" on Microsoft – the list of my orders from institutional investors – was among the best Goldman had ever seen. The underwriters expected the stock to trade at $25 a share, give or take a dollar, several weeks after opening. The sounding of big potential buyers showed that an offering price of $20 to $21 would give the deal done.

Gates didn't view this as good news.

> Gates asked Martin to leave the room while he conferred with [his CEO and CFO]... "These guys who happened to be in good with Goldman and get stock will make an instant profit of $4," he said. "Why are we handing millions of the company's money to Goldman's favorite clients?" ... The three decided on a range of $21 to $22.

Goldman responded:

> ... coming out one dollar to high would drive off some high-quality investors. *Just a few significant defections could lead other investors to think the offering was losing its luster.* Dobin [of Goldman] raised the specter of Sun Microsystems.... Because of over pricing and bad luck... Sun's shares had dropped from $16 at the offering to $14.50 on the market.

Goldman and Microsoft eventually

> ... compromised on a range of $20 to $22, with two provisos: Goldman would tell investors that the target price was $21 and nothing less, and Dobin would report Monday on which investors had dropped out....

> Monday's news was mixed. Six big investors in Boston were threatening to ... remove their names from Goldman Sach's list – T.Rowe Price, for instance, said it might drop out above $20. But their spirits revived the next day as the Dow surged 43 points [$\sim 2.5\%$]

Two days later:

> [They] had no trouble agreeing on a final price of $21. The market had risen another 14 points by noon. The reception for a $15 offering that morning by Oracle... seemed a favorable omen: the stock had opened at $19.25. About half the potential dropouts, including T. Rowe Price, had decided to stay in.

The next day Microsoft opened at $25.75, and closed at $27.75.

Empirical Findings:

1. The average first day return of IPOs is strongly positive.
   - That is, IPOs are on average underpriced.
2. First day returns are significantly positively autocorrelated.
   - First-order autocorrelation is 0.50; $\rho(t, t-2) = 0.18$.
   - Reflects "hot IPO markets"
   - Number of IPOs also highly autocorrelated.
3. Revisions (from original file price range) are highly correlated with first day return:
   - Avg. first day return for downward revisions is 4%
   - Avg. first day return for upward revisions is 32%.
   - Avg. monthly revisions are also significantly autocorrelated.
4. *Revisions are positively related to past (15 day) market return, but not strongly enough.*
   - This finding is original to this paper.

This paper concentrates on explaining the last two findings

The Prospect Theory Hypothesis

Issuers don't get upset about this because they have gained so much on their shares, and since the increase in price is a relatively small "loss," they aggregate the two and are still relatively "happy."

- The idea is that everyone anticipates this, and that a underwriter compensation schedule of this type maximizes issuer utility, given their PT-based preferences.
  - This is something like a risk-sharing agreement, but is slightly different
- *Question:* Why don't they just write the compensation agreement to explicitly incorporate a fee schedule of this type?

The model implications are:

- Public information should forecast both the rise in the offer price and the first day return.
  - Partial incorporation of public information
- Serial correlation of first day returns.
- Serial correlation of revisions.

Partial Incorporation of Information into the Offer Price

- To test this hypothesis, the authors run the cross-sectional regressions:

$$R_i = a_o + a_1 R_m + \epsilon_i$$

for three dependent variables, over 90-98 period:

R_i	a_1	$t(a_1)$	R^2_{adj}	N
$\left[\frac{\text{Close}-OP}{OP}\right]$	1.33	(6.6)	0.02	3025
$\left[\frac{OP-\text{midpoint}}{\text{midpoint}}\right]$	0.76	(5.56)	0.01	3025
$\left[\frac{\text{Close}-\text{midpoint}}{\text{midpoint}}\right]$	2.67	(7.47)	0.02	3025

This illustrates the partial reaction of the offer-price to the market. $However,$

- R^2s of these regressions are all ≤ 0.02.
- Significance of the t-stats is probably overstated, as the residuals are cross-sectionally correlated.

Does this hypothesis explain everything?

- Serial correlation of the first day returns are going to be serially correlated out to about two months.
  - Time between establishment of the filing price range and the offer-price is on the order of two months.
- However, the first day return is correlated with very old information.
  - Are first day returns high at business cycle peaks?

Other Questions:

- To what extent are revisions predictable using information available as of the preliminary prospectus date?
  - Some evidence here suggests that expected revisions may be positive in good times – this would be inconsistent with the basic theory.
- Are expected first day returns ever negative?
- How predictable is the first day return based on the revision components that are:
  - $ex\text{-}ante$ predictable
  - Predictable using public information relased between 0 and T.
  - Unpredictable using public information.

References