Bankers' Skin-in-the-game and Bank Risk-taking: Evidence from Security Issues

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What the Paper Does

- Question: Is bank-risk management improved when bankers have skin-in-the-game, or in other words, when bank executives ?
- Answer(s): YES, but depends upon definition of "improve", and depends upon identifying assumptions
- Method
 - a. Amazing new data
 - b. Interesting $D_i = \beta Z_{i,d} + \Gamma' X_i + \eta_t + \zeta_b + \kappa_d + \tau_g + \epsilon_i$ (1) by large D $Y_i = \beta \hat{D}_{i,d} + \Gamma' X_i + \eta_t + \zeta_b + \kappa_d + \tau_g + \tilde{\epsilon}_i$ (2)
 - c. Estimate 1^{st} and $2^{n\alpha}$ stage Subscription rate =

My Recommendations

- 1. Emphasize issues not identification
- 2. Analyze prices and returns
- 3. Explain "improve." Clarify meaning and measure of the term and intuition underlying key claim
- 4. Focus on the feasible. Perfect causal inference difficult in current setup, but you can still learn a lot from the data

Bank Risk and Compensation Schemes

Skin-in-the-game tied to individual decisions

- Common in investment banking assets not held on balance sheet
- Bonus = f (your profits, your contribution to team, firm profits)
- Investment banks were partnerships before 1990s

Skin-in-the-game tied to collective outcomes

- Common for commercial and investment banks
- Double-liability for U.S. commercial banks is an example

Security Issuance. How It Works

- Banker's role
 - i. Set parameters
 - ii.Guarantee funds raised by issuance
 - iii.If public offering does not raise guaranteed
 funds, then you buy the security yourself
- Stocks and bonds differ slightly
 - i. Stock set price, number of shares, and total
 return
 - ii.Bond set face, coupon, and number of shares.
 Price typically par

Subscription and Price

- Price excessive => sales insufficient => banker buys securities
- Price low => sale oversubscribed => issuer could



(b) Log(subscription rate) of issuance

Issues with Estimation and Identification

$$D_i = \beta Z_{i,d} + \Gamma' X_i + \eta_t + \zeta_b + \kappa_d + \tau_g + \epsilon_i \tag{1}$$

$$Y_i = \beta \hat{D}_{i,d} + \Gamma' X_i + \eta_t + \zeta_b + \kappa_d + \tau_g + \tilde{\epsilon}_i$$
(2)

- Issue 1. <u>Outcome</u> is log of subscription percentage => underpricing good and overpricing bad ... at the same rate. Why is this risk management?
 - Suggestion. Examine price (relative to optimum) and returns for bank, firm, investors directly
- Issue 2. Number of observations. ~240 security offerings.
 - # observations multiplied by ~6 by treating each executives guarantee as an independent offering

Issues with Identification & Instrument

- Discontinuities and instrument assumed. No independent evidence that instrument existed in reality.
- If instrument true, better estimation methods exist, e.g. RD
- Instrument doesn't work when #



	(1)	(2)	(3)	(4)
VARIABLES	Log(subscription)	Log(subscription)	Log(subscription)	Log(subscription)
VARIADIED	nog(subscription)	OL	S	nog(subscription)
A stuel director guerentes (v1000)	0.049***	0.045***		
Actual director guarantee (x1000)	(0.010)	(0.011)		
T (1) (1) (1)	(0.010)	(0.011)	0.444***	0 451***
Log(actual manager guarantee +1)			0.444	0.451
			(0.152)	(0.158)
p ²		0.000	0.000	0.055
R ²	0.257	0.290	0.230	0.255
	DE			
D_{-1} ' (-1) ' (-1000)	0.008	0.024*	2	
Predicted director guarantee (x1000)	0.028	0.034*		
	(0.020)	(0.020)		0.004
Log(predicted manager guarantee + 1)			0.733	0.624
			(0.565)	(0.572)
- 2				
R^2	0.204	0.234	0.203	0.228
	IV 0-1 -t			
	IV 2nd stage			
Actual director guarantee (x1000)	0.027	0.033*		
	(0.019)	(0.019)		
Log(actual manager guarantee +1)			0.682	0.594
-, ,			(0.520)	(0.536)
_				
R^2	0.066	0.111	0.030	0.069
	IV 1st stage			
	Actual manager un	derwriting guarantee	Log(actual manag	(er guarantee + 1)
Predicted director guarantee (x1000)	1.042^{***}	1.030^{***}		
	(0.112)	(0.113)		
Log(predicted manager guarantee + 1)			1.074^{***}	1.050 * * *
0.000			(0.274)	(0.282)
Observations	239	239	239	239
IV F-stat	87.24	83.33	18.66	18.16
Bin FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y
Controls	N	Y	N	Y

Table A1: Subscription to issuance and median banker's guarantee

Note: This table presents estimates the effect of median director underwriting. The median director reflects the median guarantee of 3 or 4 directors of the sample. The dependent variable is the logarithm of the subscription to the security issuance. We only include the observations for which the bank is the lead underwriter and where the total bank guarantee does not exceed 5 million in the currency of issuance. The explanatory variables in columns (1) and (2) are the actual or predicted banker guarantee (in thousands of issued currency). For column (3) and (4), we take the logarithm of the actual and predicted banker guarantee to check whether very large guarantees are driving the results. We take the log(banker guarantee + 1) to preserve the observations where the bankers do not underwrite. The rows present the results for OLS, RF, and IV regression including the first stage. Column (1) and (3) include no controls. Column (2) and (4) includes a set of controls (bank share in syndicate, dummy for public, stocks, foreign, interlocked directorate, a main bank dummy and an IPO dummy. All columns include bin, year and industry fixed effects. Robust standard errors are in parentheses. ***, ** and * indicate significance at 1, 5 and 10% level, respectively.

OLS works IV fails

Amazing Number of Interesting Issues to Examine With This Data

• Figure A2 => Prices lower (i.e. subscription rates higher) when bank is the lead or sole underwriter. Prices higher (subscription lower) when bank joins as partner in syndicate

Syndication structure and incentives influence revenues from IPO

- Do banks better price (i.e. subscription rate near 100%) IPOs for local or foreign entities or for one shot or repeat clients?
- Does better pricing lead to more clients?
- Do revenues earned (or money lost) by banks from investment activities impact portfolio choices (for liabilities or assets) of the