Xiaoding Liu and Jay R. Ritter
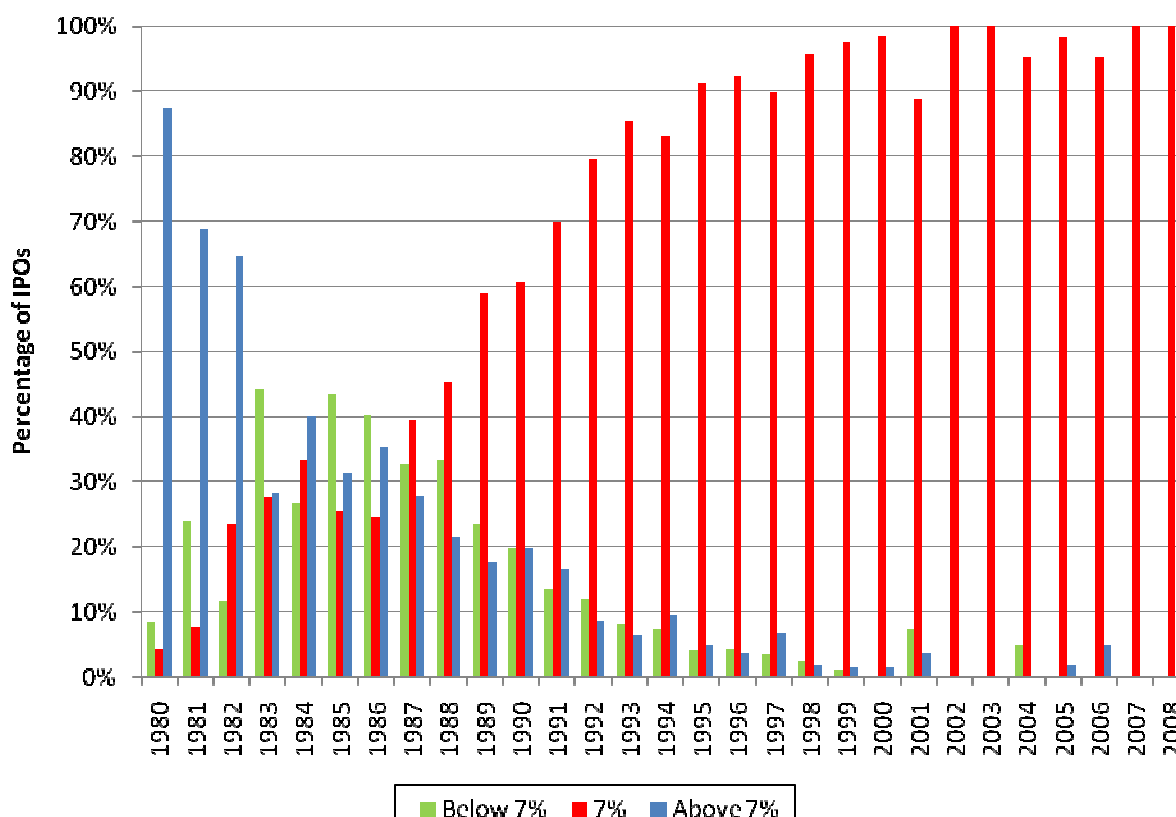**December 20, 2010**

"Local Underwriter Oligopolies and IPO Underpricing" Internet Appendix Figure IA-1
**Gross Spread Distribution for Moderate Size IPOs**

The sample consists of 3,564 U.S. IPOs from 1980 to 2008 with proceeds of at least $20 million but less than $80 million (expressed in terms of dollars of 1998 purchasing power, the equivalent of $28 million to $110 million in 2010 purchasing power, using the Consumer Price Index). IPOs using auctions, bank and S&L IPOs, SPACs, REITs, closed-end funds, partnerships, ADRs, unit offers, and IPOs with an offer price of less than $5 are excluded. The percentages of IPOs with a gross spread below 7%, equal to 7%, and above 7% are plotted.

"Local Underwriter Oligopolies and IPO Underpricing" Internet Appendix Figure IA-2

Number of IPO Lead Underwriters

The sample consists of 7,319 IPOs from 1980 to 2008 with an offer price of at least $5 and meeting other criteria specified in Figure 1. The number of unique lead underwriters and the number of unique top-tier lead underwriters that have taken a company public during a given calendar year is plotted. The top-tier underwriter's market share is calculated as the ratio of the number of IPOs underwritten by top-tier underwriters to the total number of IPOs underwritten in a given year. Top-tier underwriters have an updated Carter-Manaster ranking of 8 or above on a 0-9 scale.
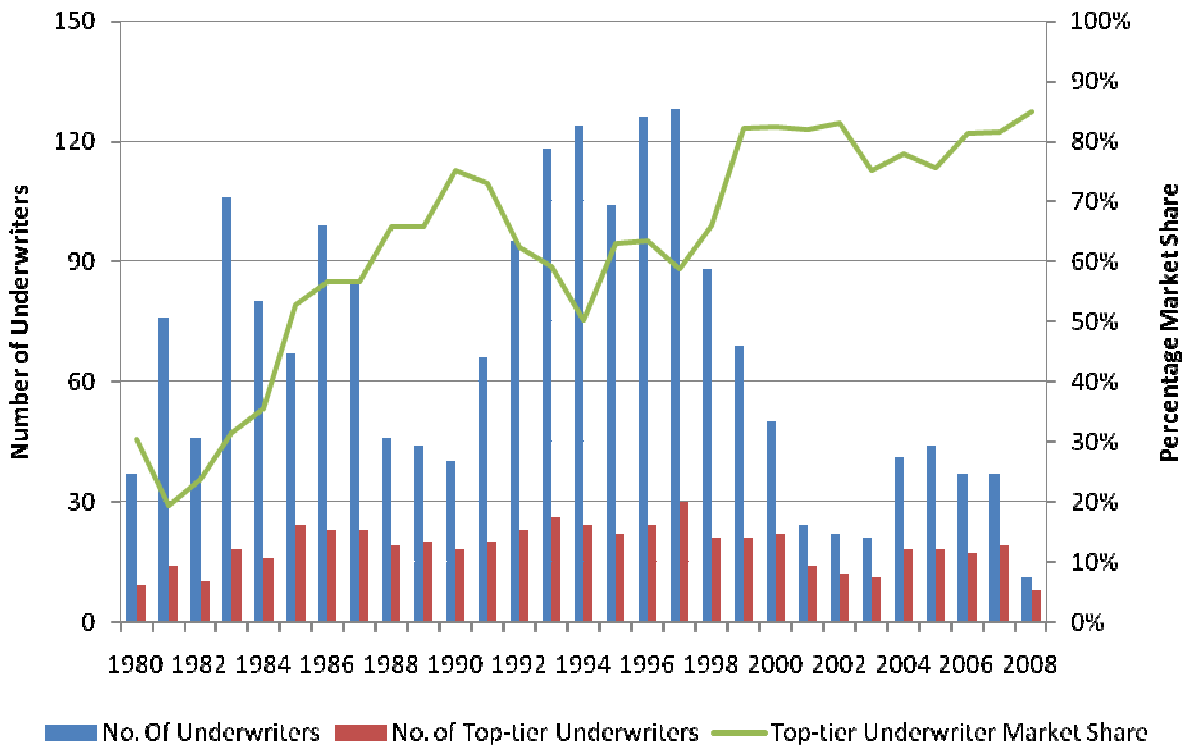
"Local Underwriter Oligopolies and IPO Underpricing" Internet Appendix Figure IA-3
Yearly Average Number of Bookrunners and Managing Underwriters per IPO

The sample consists of 7,319 IPOs from 1980 to 2008 with an offer price of at least $5 and meeting other criteria. The average number of bookrunners and managers per IPO are calculated categorized by whether the IPO is underwritten by at least one top-tier bookrunner.
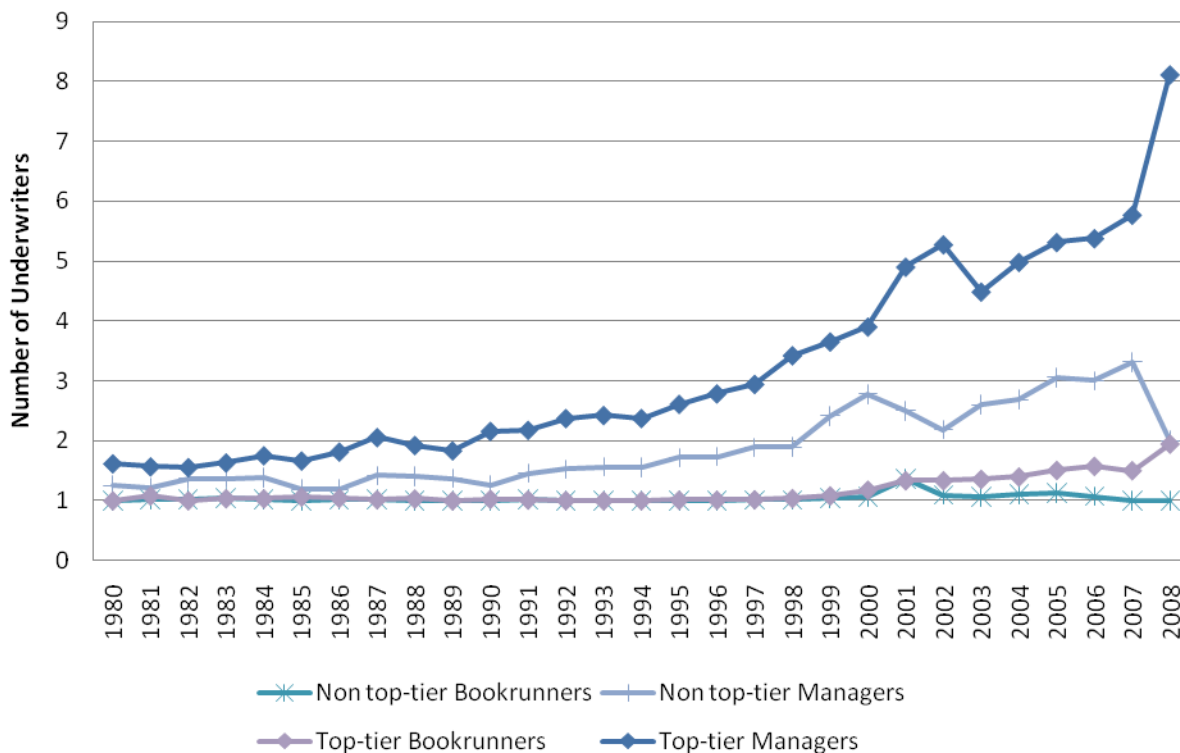
"Local Underwriter Oligopolies and IPO Underpricing" Internet Appendix Table IA-1
All-star Analyst Status Probit Regressions with IPO Coverage Variables

This table reports results from probit regressions. In all columns, the dependent variable is 1 (0 otherwise) if the analyst is an all-star (top 3 by *Institutional Investor*) in year t. The sample in columns (1) to (3) uses the entire sample of analyst-year observations from 1993 to 2009. The sample in columns (5) to (7) uses analyst-year observations from 1993 to 2009 where the analyst is an all-star in year t-1. All independent variables are measured in year t-1. All-star is 1 (0 otherwise) if the analyst is an all-star in year t-1. Broker Size is the natural logarithm of the number of analysts employed by the analyst's brokerage house in year t-1. Stocks Covered is the natural logarithm of the number of stocks the analyst covers in year t-1. Experience is the natural logarithm of the number of years the analyst has been submitting reports to IBES. Percentage of Buys is the percentage of buys and strong buys (IBES recommendation codes 1 and 2) among the analyst's recommendations in year t-1. IPO Coverage Dummy is 1 (0 otherwise) if in year t-1 the all-star analyst covered an IPO underwritten by its investment bank within one year of the IPO. IPO Coverage Dummy×Underpricing is the interaction of the IPO Coverage Dummy and the first-day return (in decimal) of the IPO covered by the all-star analyst. IPO Coverage Dummy×VC is the interaction of the IPO Coverage Dummy and a VC dummy that equals 1 (0 otherwise) if the IPO covered is backed by venture capital. IPO Coverage Dummy×VC×Underpricing is the interaction of the IPO Coverage Dummy with the VC dummy and the IPO's first-day return (in decimal). Column (4) reports the marginal effects of the corresponding variable in column (3) on the probability the dependent variable is 1, which is measured as the change in the probability for a one standard deviation (from one-half standard deviation below the mean to one-half standard deviation above the mean) change in the continuous variable or for a 0 to 1 change in the dummy variable, holding other variables at their means. Column (8) reports similar marginal effects of the corresponding variable in column (7) on the probability the dependent variable is 1. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering by analysts.

	Dependent Variable: All-star Status in Year t (0 or 1)							
	Full Sample				All-star Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-4.34	-4.36	-4.36	-	-0.44	-0.46	-0.46	-
	(-38.17)	(-38.25)	(-38.26)		(-1.86)	(-1.96)	(-1.96)	
All-star	2.60	2.60	2.60	49.6%	-	-	-	-
	(55.02)	(55.05)	(55.05)					
Broker Size	0.33	0.33	0.33	0.8%	0.16	0.16	0.16	3.4%
	(17.92)	(17.96)	(17.96)		(3.29)	(3.34)	(3.34)	
Stocks Covered	0.28	0.28	0.28	0.5%	0.18	0.18	0.18	4.7%
	(11.11)	(11.13)	(11.14)		(4.55)	(4.59)	(4.61)	
Experience	0.04	0.05	0.05	0.01%	-0.15	-0.14	-0.14	-3.5%
	(2.07)	(2.13)	(2.13)		(-3.56)	(-3.49)	(-3.50)	
Percentage of Buys	0.11	0.11	0.11	0.01%	0.16	0.17	0.17	1.6%
	(1.82)	(1.93)	(1.92)		(1.49)	(1.64)	(1.65)	
IPO Coverage Dummy	0.30	0.38	0.37	1.1%	0.24	0.30	0.31	9.8%
	(3.07)	(4.07)	(3.40)		(2.36)	(3.16)	(2.87)	
IPO Coverage Dummy ×Underpricing	-	-0.19	-0.22	-0.03%	-	-0.14	-0.18	-2.1%
		(-1.50)	(-1.15)			(-1.06)	(-0.96)	
IPO Coverage Dummy ×VC	-	-	0.05	0.1%	-	-	-0.03	-1.1%
			(0.29)				(-0.17)	
IPO Coverage Dummy ×VC×Underpricing	-	-	0.01	0.0%	-	-	0.05	0.6%
			(0.06)				(0.31)	
N	53,245	53,245	53,245		2,821	2,821	2,821	
Number of Analysts	12,505	12,505	12,505		712	712	712	
R^2_{pseudo}	61.2%	61.2%	61.2%		2.7%	2.8%	2.8%	

"Local Underwriter Oligopolies and IPO Underpricing" Internet Appendix Table IA-2
Robustness Check: Two-Stage Estimations

The sample consists of 4,510 IPOs from 1993-2008. The dependent variable in the All-star probit regressions is the all-star dummy and the dependent variable in the Underpricing OLS regressions is the percentage first-day return. The Had Star Dummy equals one (zero otherwise) if a lead underwriter had an all-star analyst cover an IPO in the same Fama-French 49 industry in the prior five years before an IPO. Pre-IPO Market Return is the compounded CRSP value-weighted percentage index return over 15 trading days before the IPO. Underpricing Instrument is the fitted value from the first-stage underpricing OLS regression. All-star Instrument is the fitted value from the first-stage all-star analyst coverage probit regression. The other explanatory variables are defined in the Appendix Table. Year fixed effects based on the IPO year and industry fixed effects based on the 49 Fama-French industries are included, where the coefficients are not reported for brevity. The t-statistics for the OLS regression and the z-statistics for the probit regression reported in parentheses in the second stage are corrected for estimation error in the first stage based on Maddala (1983).

	First Stage		Second Stage	
Variable	All-star Probit	Underpricing OLS	All-star Probit	Underpricing OLS
Top-Tier Dummy	0.99	4.28	1.01	-5.13
	(11.15)	(2.66)	(10.99)	(-1.44)
Ln(Assets)	0.14	-2.50	0.13	-3.79
	(7.41)	(-5.44)	(5.86)	(-5.93)
Internet Dummy	0.10	23.71	0.18	22.72
	(1.15)	(9.94)	(1.28)	(8.95)
Share Overhang	0.04	5.05	0.06	4.69
	(3.24)	(15.21)	(2.14)	(12.65)
VC Dummy	0.02	5.84	0.04	5.70
	(0.25)	(3.94)	(0.52)	(3.62)
Had Star Dummy	0.62	5.86	0.64	-
	(10.58)	(3.57)	(9.81)	
Pre-IPO Market Return	-0.01	1.74	-	1.80
	(-0.74)	(8.44)		(8.26)
Underpricing Instrument	-	-	-0.003	-
			(-0.73)	
All-star Instrument	-	-	-	9.50
				(3.43)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
N	4,510	4,510	4,510	4,510
R^2_{adj} or R^2_{pseudo}	19.4%	28.7%	19.4%	28.7%