

Do Underwriters Compete in IPO Pricing

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Table A2. Ratio of high-quality to low-quality underwriter compensation and the state of the IPO market – Subsample of higher-quality (CM score > 3) underwriters

Measure of HQ	Carter Manaster ≥ 8					Rank(past market share) ≤ 15				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
Measure of compensation										
(# <i>IPOs</i> * 0.01)	0.069 4.984	0.076 4.603	0.076 3.566	0.074 2.889	0.066 1.780	0.065 4.055	0.066 3.414	0.062 2.580	0.057 2.021	0.042 1.078
(# <i>IPOs</i> * 0.01) ²	-0.008 -3.533	-0.009 -3.480	-0.008 -2.551	-0.008 -1.941	-0.005 -0.929	-0.008 -3.241	-0.007 -2.394	-0.006 -1.548	-0.005 -1.035	-0.001 -0.225
IPO size	0.940 100.896	0.948 84.338	0.956 69.140	0.963 59.182	0.981 42.489	0.933 94.698	0.934 82.061	0.936 68.239	0.939 58.496	0.948 41.283
Secondary	-0.100 -3.468	-0.127 -3.468	-0.132 -2.896	-0.130 -2.417	-0.107 -1.412	-0.125 -4.181	-0.162 -4.638	-0.175 -3.985	-0.180 -3.423	-0.175 -2.301
Hi-tech	0.023 2.569	0.066 5.223	0.095 5.691	0.118 5.838	0.171 5.940	0.023 2.138	0.067 5.373	0.097 6.191	0.120 6.483	0.177 6.757
VC	-0.033 -4.662	-0.006 -0.400	0.007 0.355	0.015 0.613	0.027 0.805	-0.040 -3.909	-0.002 -0.151	0.017 0.952	0.030 1.388	0.052 1.780
Syndicate	-0.719 -31.408	-0.630 -14.403	-0.570 -9.192	-0.525 -6.917	-0.418 -3.891	-0.758 -33.422	-0.680 -20.031	-0.624 -13.542	-0.580 -10.329	-0.472 -5.845
Intercept	-0.083 -4.240	-0.077 -3.460	-0.069 -2.455	-0.061 -1.806	-0.038 -0.759	-0.022 -1.028	0.013 0.529	0.044 1.396	0.070 1.866	0.141 2.574
Inflection point	4.57	4.39	4.56	4.82	6.20	4.21	4.54	5.13	5.94	14.55
R squared	0.941	0.881	0.807	0.745	0.602	0.935	0.879	0.808	0.746	0.602
# Obs.	22,398	22,398	22,398	22,398	22,398	19,011	19,011	19,011	19,011	19,011

Table A4. Ratio of high-quality to low-quality underwriter compensation and the state of the IPO market – Alternative cutoffs of underwriter quality

Measure of HQ compensation	Panel A									
	Carter Manaster = 9					Rank(past market share) ≤ 5				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
(#IPOs * 0.01)	0.047	0.077	0.089	0.096	0.108	0.118	0.116	0.112	0.109	0.103
	1.983	2.808	2.489	2.231	1.781	3.681	3.754	3.400	3.014	2.165
(#IPOs * 0.01) ²	-0.005	-0.010	-0.012	-0.013	-0.015	-0.018	-0.016	-0.015	-0.014	-0.011
	-1.080	-2.108	-1.977	-1.805	-1.448	-4.064	-4.156	-3.456	-2.780	-1.574
IPO size	0.942	0.944	0.951	0.958	0.983	0.940	0.931	0.927	0.925	0.924
	83.860	71.315	60.127	53.087	41.230	77.756	60.736	48.755	40.727	26.966
Secondary	-0.091	-0.143	-0.161	-0.168	-0.166	-0.135	-0.203	-0.233	-0.248	-0.263
	-1.595	-1.913	-1.794	-1.648	-1.263	-2.352	-3.393	-3.431	-3.232	-2.489
Hi-tech	0.010	0.063	0.097	0.121	0.178	0.028	0.075	0.107	0.133	0.196
	0.480	2.329	2.741	2.871	2.957	1.911	5.246	6.902	7.569	7.802
VC	-0.025	0.015	0.031	0.039	0.047	-0.041	0.003	0.030	0.049	0.089
	-2.348	0.613	0.893	0.931	0.798	-2.444	0.144	1.067	1.478	1.959
Syndicate	-0.759	-0.679	-0.623	-0.579	-0.477	-0.802	-0.677	-0.590	-0.524	-0.367
	-18.247	-9.782	-6.602	-5.073	-2.958	-17.145	-10.296	-7.359	-5.712	-3.080
Intercept	-0.005	-0.003	-0.002	-0.002	-0.004	-0.040	0.020	0.062	0.094	0.166
	-0.236	-0.099	-0.049	-0.036	-0.058	-1.255	0.621	1.684	2.233	2.901
Inflection point	5.03	3.79	3.66	3.64	3.70	3.35	3.54	3.77	3.99	4.66
R squared	0.935	0.872	0.803	0.746	0.619	0.934	0.886	0.828	0.776	0.651
# Obs.	12,816	12,816	12,816	12,816	12,816	10,040	10,040	10,040	10,040	10,040

Table A6. Ratio of high-quality to low-quality underwriter compensation and the state of the IPO market – Years with IPOs with multiple book runners

Measure of HQ compensation	Carter Manaster ≥ 8				Rank(past market share) ≤ 15				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
(#IPOs * 0.01)	0.060 4.508	0.096 5.551	0.117 5.196	0.132 4.855	0.164 4.192	0.062 3.639	0.109 3.884	0.121 3.633	0.148 3.188
(#IPOs * 0.01) ²	-0.007 -3.390	-0.012 -4.858	-0.015 -4.466	-0.017 -4.086	-0.020 -3.364	-0.008 -3.054	-0.013 -3.009	-0.014 -2.720	-0.016 -2.247
IPO size	0.953 99.213	0.947 81.810	0.945 65.860	0.944 55.665	0.948 39.009	0.951 97.595	0.928 66.395	0.924 57.100	0.917 40.480
Secondary	-0.113 -3.363	-0.155 -3.166	-0.169 -2.711	-0.173 -2.356	-0.167 -1.614	-0.149 -4.584	-0.250 -4.262	-0.268 -3.805	-0.294 -2.891
Hi-tech	0.018 1.878	0.069 5.435	0.102 6.165	0.127 6.380	0.186 6.479	0.022 1.957	0.109 6.492	0.137 6.825	0.201 7.172
VC	-0.050 -6.936	-0.028 -1.916	-0.018 -0.856	-0.012 -0.473	-0.005 -0.122	-0.065 -6.194	-0.012 -0.618	0.000 0.002	0.022 0.674
Syndicate	-0.693 -9.949	-0.231 -1.067	0.034 0.112	0.220 0.598	0.616 1.265	-0.631 -9.662	0.202 1.182	0.425 2.075	0.906 3.263
Intercept	-0.086 -3.740	-0.114 -4.279	-0.133 -4.117	-0.149 -3.889	-0.184 -3.340	-0.040 -1.537	-0.030 -0.696	-0.026 -0.502	-0.015 -0.194
Inflection point	4.33	3.88	3.90	3.96	4.15	4.03	4.12	4.24	4.52
R squared	0.944	0.874	0.792	0.724	0.571	0.940	0.797	0.730	0.578
# Obs.	26,156	26,156	26,156	26,156	26,156	21,609	21,609	21,609	21,609

Table A7 – Tests of Predictions 1a and 1b for separate subsamples of high-quality and low-quality underwriters

Panel A – Subsample of high-quality underwriters

Measure of high quality	Carter-Manaster score ≥ 8					Rank(past market share) ≤ 15				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
(#IPO * 0.01)	0.166 (2.76)	0.165 (0.96)	0.163 (0.53)	0.161 (0.36)	0.156 (0.16)	0.264 (4.42)	0.307 (1.73)	0.351 (1.07)	0.394 (0.82)	0.544 (0.54)
(#IPO * 0.01) ²	-0.035 (-2.62)	-0.012 (-0.31)	0.012 (0.18)	0.036 (0.36)	0.119 (0.57)	-0.055 (-4.15)	-0.026 (-0.70)	0.002 (0.03)	0.030 (0.30)	0.130 (0.60)
IPO size	-0.990 (-28.62)	-0.916 (-11.06)	-0.843 (-5.78)	-0.769 (-3.65)	-0.512 (-1.16)	-1.004 (-31.61)	-0.953 (-11.82)	-0.902 (-6.28)	-0.851 (-4.09)	-0.673 (-1.54)
Secondary	-0.880 (-8.16)	-2.517 (-9.65)	-4.154 (-8.83)	-5.791 (-8.43)	-11.520 (-7.93)	-0.917 (-8.64)	-2.569 (-9.76)	-4.221 (-8.81)	-5.873 (-8.37)	-11.655 (-7.83)
Hi-tech	0.095 (1.77)	0.757 (4.93)	1.420 (4.98)	2.082 (4.96)	4.400 (4.92)	0.093 (1.73)	0.746 (4.88)	1.399 (4.93)	2.052 (4.91)	4.339 (4.87)
VC	-0.430 (-7.22)	-0.552 (-3.64)	-0.673 (-2.43)	-0.795 (-1.95)	-1.221 (-1.41)	-0.440 (-7.39)	-0.571 (-3.76)	-0.702 (-2.52)	-0.834 (-2.04)	-1.293 (-1.49)
Syndicate	0.463 (5.79)	0.406 (2.11)	0.348 (1.03)	0.291 (0.60)	0.090 (0.09)	0.464 (6.16)	0.448 (2.35)	0.431 (1.29)	0.415 (0.86)	0.358 (0.36)
Intercept	11.259 (96.61)	12.367 (42.82)	13.475 (26.79)	14.584 (20.17)	18.463 (12.30)	11.296 (100.52)	12.465 (43.52)	13.633 (27.13)	14.802 (20.44)	18.892 (12.54)
Infection point	2.35	7.07				2.41	5.82			
R squared	0.692	0.222	0.101	0.069	0.046	0.694	0.225	0.104	0.072	0.049
# Obs.	586	586	586	586	586	579	579	579	579	579

Panel B – Subsample of low-quality underwriters

Measure of high quality	Carter-Manaster score ≥ 8					Rank (past market share) ≤ 15				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
(#IPO * 0.01)	-0.180 (-3.49)	-0.705 (-4.74)	-1.229 (-4.50)	-1.754 (-4.38)	-3.590 (-4.23)	-0.224 (-4.55)	-0.787 (-5.24)	-1.349 (-4.84)	-1.911 (-4.66)	-3.879 (-4.44)
(#IPO * 0.01) ²	0.035 (3.46)	0.181 (5.60)	0.327 (5.44)	0.472 (5.35)	0.982 (5.23)	0.044 (4.47)	0.193 (5.97)	0.343 (5.65)	0.493 (5.50)	1.016 (5.33)
IPO size	-0.999 (-29.27)	-0.918 (-10.56)	-0.838 (-5.43)	-0.757 (-3.39)	-0.475 (-1.02)	-1.002 (-32.13)	-0.935 (-11.11)	-0.868 (-5.75)	-0.800 (-3.65)	-0.564 (-1.23)
Secondary	-0.927 (-8.45)	-2.488 (-8.96)	-4.049 (-8.01)	-5.610 (-7.59)	-11.074 (-7.06)	-0.972 (-8.90)	-2.608 (-9.39)	-4.244 (-8.35)	-5.880 (-7.89)	-11.606 (-7.34)
Hi-tech	0.089 (1.66)	0.721 (4.75)	1.353 (4.81)	1.984 (4.80)	4.195 (4.77)	0.085 (1.59)	0.718 (4.74)	1.350 (4.81)	1.983 (4.80)	4.197 (4.76)
VC	-0.430 (-7.11)	-0.495 (-3.22)	-0.561 (-2.00)	-0.626 (-1.53)	-0.855 (-0.98)	-0.435 (-7.19)	-0.518 (-3.36)	-0.600 (-2.14)	-0.683 (-1.66)	-0.974 (-1.11)
Syndicate	0.454 (5.95)	0.475 (2.52)	0.497 (1.49)	0.518 (1.07)	0.593 (0.59)	0.434 (6.24)	0.439 (2.41)	0.443 (1.35)	0.448 (0.94)	0.465 (0.46)
Intercept	11.447 (77.92)	12.604 (33.82)	13.761 (20.71)	14.918 (15.47)	18.966 (9.37)	11.507 (83.12)	12.766 (34.82)	14.025 (21.20)	15.284 (15.86)	19.690 (9.69)
Inflection point (LQ)	2.54	1.95	1.88	1.86	1.83	2.57	2.03	1.97	1.94	1.91
R squared	0.693	0.239	0.122	0.091	0.069	0.695	0.241	0.122	0.091	0.068
# Obs.	1,617	1,617	1,617	1,617	1,617	1,624	1,624	1,624	1,624	1,624

Table A8 – Tests of Predictions 1a and 1b while including measures of information asymmetry

Measure of high quality	Carter-Manaster score ≥ 8					Rank(past market share) ≤ 15				
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
Measure of compensation										
(#IPO * 0.01) * HQ	0.034 (0.40)	0.089 (0.41)	0.145 (0.37)	0.201 (0.35)	0.395 (0.33)	0.133 (1.53)	0.259 (1.13)	0.386 (0.93)	0.512 (0.85)	0.955 (0.75)
(#IPO * 0.01) ² * HQ	-0.011 (-0.65)	0.005 (0.11)	0.021 (0.26)	0.037 (0.31)	0.092 (0.37)	-0.030 (-1.75)	-0.012 (-0.27)	0.005 (0.06)	0.022 (0.18)	0.083 (0.32)
(#IPOs * 0.01) * LQ	-0.182 (-2.31)	-0.550 (-2.96)	-0.918 (-2.73)	-1.286 (-2.61)	-2.574 (-2.46)	-0.171 (-2.24)	-0.516 (-2.82)	-0.861 (-2.60)	-1.206 (-2.48)	-2.414 (-2.34)
(#IPOs * 0.01) ² * LQ	0.036 (2.61)	0.152 (4.06)	0.268 (3.88)	0.384 (3.78)	0.791 (3.65)	0.035 (2.61)	0.146 (3.94)	0.256 (3.75)	0.366 (3.65)	0.753 (3.52)
IPO size	-0.996 (-29.00)	-0.953 (-11.12)	-0.909 (-6.01)	-0.865 (-3.96)	-0.713 (-1.56)	-1.008 (-32.27)	-0.996 (-12.02)	-0.984 (-6.63)	-0.972 (-4.51)	-0.929 (-2.05)
Secondary	-0.938 (-8.05)	-2.354 (-8.58)	-3.770 (-7.65)	-5.187 (-7.22)	-10.144 (-6.68)	-0.965 (-8.41)	-2.419 (-8.91)	-3.873 (-7.89)	-5.326 (-7.43)	-10.415 (-6.85)
Hi-tech	0.084 (1.57)	0.709 (4.64)	1.335 (4.71)	1.960 (4.70)	4.147 (4.67)	0.082 (1.53)	0.701 (4.62)	1.320 (4.69)	1.939 (4.68)	4.106 (4.65)
VC	-0.432 (-7.22)	-0.511 (-3.32)	-0.589 (-2.11)	-0.668 (-1.63)	-0.943 (-1.09)	-0.441 (-7.39)	-0.541 (-3.53)	-0.642 (-2.29)	-0.743 (-1.81)	-1.095 (-1.26)
Syndicate	0.424 (5.11)	0.697 (3.53)	0.970 (2.81)	1.243 (2.50)	2.200 (2.12)	0.433 (5.59)	0.763 (4.01)	1.093 (3.25)	1.423 (2.92)	2.578 (2.53)
Analysts following	0.019 (1.61)	-0.045 (-1.52)	-0.110 (-2.03)	-0.174 (-2.20)	-0.399 (-2.38)	0.018 (1.54)	-0.048 (-1.59)	-0.113 (-2.09)	-0.179 (-2.26)	-0.408 (-2.43)
Forecast dispersion	-0.210 (-0.64)	-1.435 (-1.85)	-2.660 (-1.89)	-3.885 (-1.89)	-8.173 (-1.87)	-0.188 (-0.57)	-1.422 (-1.83)	-2.657 (-1.89)	-3.892 (-1.89)	-8.213 (-1.88)
Intercept	11.343 (60.04)	12.944 (29.64)	14.546 (18.99)	16.147 (14.60)	21.753 (9.41)	11.357 (62.74)	13.039 (30.36)	14.721 (19.41)	16.403 (14.94)	22.291 (9.69)
Inflection point (HQ)	1.57					2.25	10.55			
Inflection point (LQ)	2.51	1.81	1.71	1.67	1.63	2.43	1.77	1.68	1.65	1.60
R squared	0.694	0.243	0.127	0.097	0.075	0.696	0.246	0.130	0.100	0.078
# Obs.	2,203	2,203	2,203	2,203	2,203	2,203	2,203	2,203	2,203	2,203

Table A9 – Tests of Predictions 2a and 2b while including measures of information asymmetry

Measure of high quality	Carter-Manaster score ≥ 8							Rank(past market share) ≤ 15							
	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%	Direct +0%	Direct +10%	Direct +20%	Direct +30%	Direct +65%
(#IPO * 0.01)	0.065 (5.07)	0.085 (5.41)	0.093 (4.49)	0.096 (3.85)	0.101 (2.77)	0.065 (4.39)	0.080 (4.46)	0.084 (3.69)	0.085 (3.13)	0.085 (2.19)					
(#IPO * 0.01) ²	-0.008 (-3.80)	-0.011 (-4.76)	-0.013 (-3.94)	-0.013 (-3.34)	-0.013 (-2.31)	-0.008 (-3.65)	-0.010 (-3.54)	-0.011 (-2.77)	-0.010 (-2.26)	-0.009 (-1.45)					
IPO size	0.941 (100.51)	0.944 (81.38)	0.948 (66.69)	0.953 (57.31)	0.967 (41.63)	0.935 (94.75)	0.932 (79.69)	0.933 (65.98)	0.934 (56.63)	0.942 (40.27)					
Secondary	-0.101 (-3.11)	-0.149 (-3.33)	-0.166 (-2.97)	-0.173 (-2.63)	-0.170 (-1.86)	-0.140 (-4.42)	-0.204 (-5.11)	-0.233 (-4.57)	-0.249 (-4.07)	-0.270 (-3.05)					
Hi-tech	0.024 (2.68)	0.072 (5.78)	0.104 (6.20)	0.127 (6.28)	0.182 (6.21)	0.027 (2.48)	0.072 (5.82)	0.102 (6.53)	0.125 (6.72)	0.178 (6.80)					
VC	-0.036 (-4.69)	-0.021 (-1.44)	-0.014 (-0.70)	-0.011 (-0.43)	-0.008 (-0.21)	-0.043 (-3.79)	-0.016 (-1.16)	-0.003 (-0.15)	0.006 (0.28)	0.021 (0.70)					
Syndicate	-0.739 (-30.81)	-0.624 (-13.90)	-0.549 (-8.70)	-0.491 (-6.40)	-0.359 (-3.33)	-0.775 (-31.44)	-0.670 (-19.06)	-0.596 (-12.66)	-0.539 (-9.45)	-0.405 (-4.97)					
Analysts following	-0.003 (-1.02)	-0.009 (-2.36)	-0.012 (-2.70)	-0.015 (-2.82)	-0.022 (-2.83)	-0.004 (-1.28)	-0.009 (-2.01)	-0.012 (-2.25)	-0.015 (-2.37)	-0.021 (-2.48)					
Forecast dispersion	0.288 (3.15)	0.237 (2.24)	0.182 (1.38)	0.131 (0.83)	-0.012 (-0.05)	0.241 (2.97)	0.109 (1.15)	0.002 (0.02)	-0.086 (-0.64)	-0.308 (-1.67)					
Intercept	-0.083 (-4.52)	-0.083 (-3.80)	-0.079 (-2.84)	-0.074 (-2.22)	-0.059 (-1.21)	-0.028 (-1.36)	-0.003 (-0.11)	0.020 (0.67)	0.040 (1.10)	0.095 (1.77)					
Inflection point	4.26	3.74	3.69	3.71	3.87	3.98	3.87	3.98	4.10	4.52					
R squared	0.936	0.872	0.796	0.731	0.584	0.930	0.869	0.795	0.731	0.585					
# Obs.	29,017	29,017	29,017	29,017	29,017	24,369	24,369	24,369	24,369	24,369					