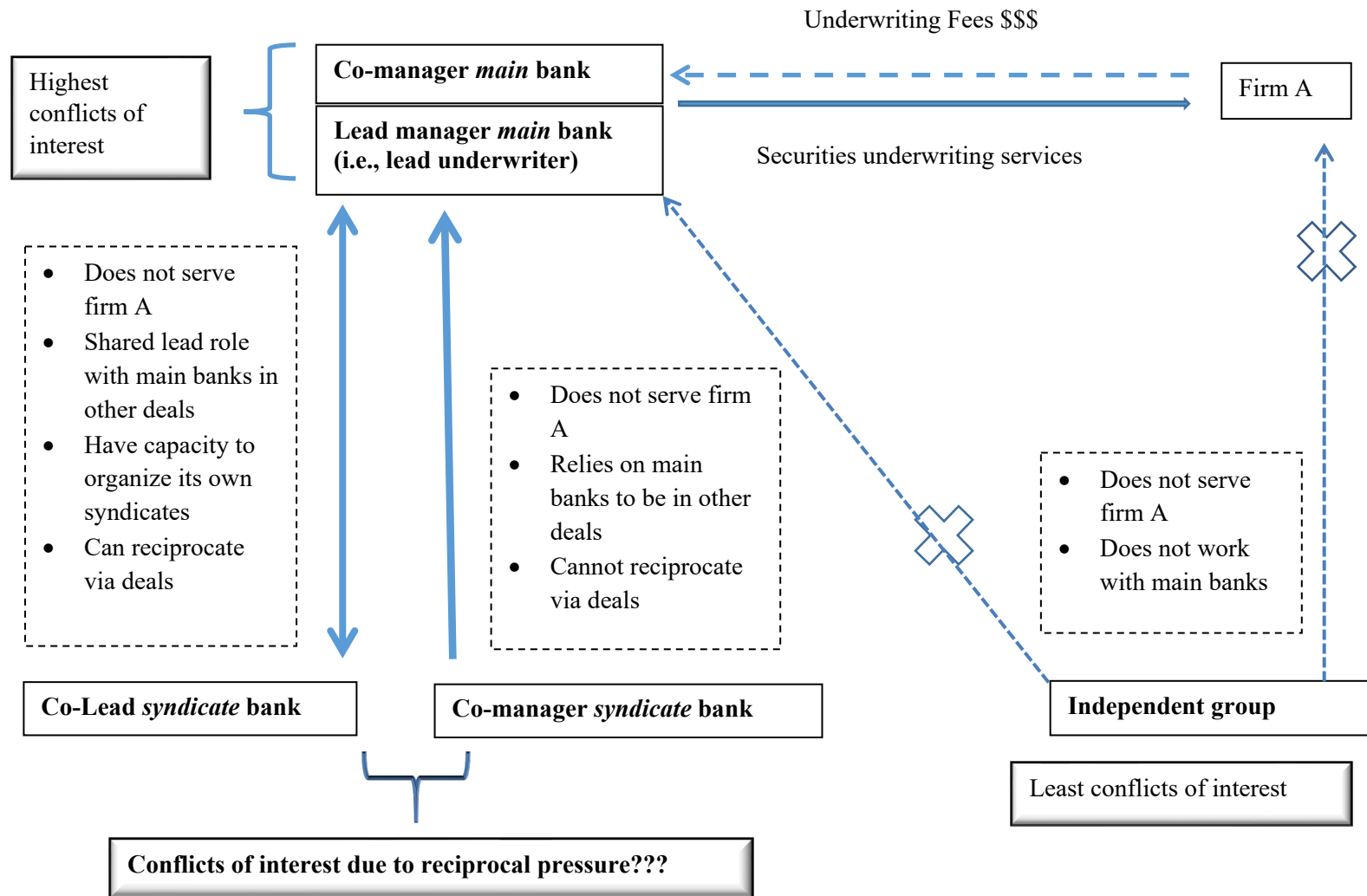


Online-Appendix B1 Bank types and the levels of conflicts of interest

See Panel A of Appendix A1 for the definitions of bank types and associated analyst types.



Online-Appendix B2 Buy and hold values of investing in stocks of sued firms during event windows

The sample consists of firms being sued in securities class action lawsuits from 1996 to 2006. Class period is specified in each lawsuit dating the beginning and the end of a sued firm's wrongdoing. The class period starting date to the max value day denotes the period that a buy and hold investment reaches maximum value starting from the beginning of the class period. The class ending date denotes the day when wrongdoing is uncovered. Lawsuit date is the day when the lawsuit is filed. This table reports the buy and hold values of the sued firms or those of the CRSP market indexes at the end of the time interval if \$1 was invested at the beginning of the interval. Significance levels of tests of differences between sued firms and the market index are indicated next to the means and medians of sued firms.

Event window	Obs.	Sued firms		Value weighted index		Equally weighted index			
		Mean	Median	Mean	Median	Mean	Median		
Class period starting date to two days prior to class period ending date	519	0.87	***	0.82	***	1.09	1.07	1.29	1.17
Class period starting date to max value day	519	1.63	***	1.30	***	1.09	1.05	1.17	1.10
Three days around class period ending date [-1,0,1]	686	0.79	***	0.81	***	1.00	1.01	1.00	1.01
Two days following class period ending date to two days prior to lawsuit date	541	0.88	***	0.94	***	1.00	1.00	1.11	1.05
Three days around the lawsuit date [-1,0,1]	682	0.95	***	0.98	***	1.00	1.00	1.00	1.01

*, **, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Online-Appendix B3 Analysis of the timeliness of recommendation downgrade revisions – Robustness tests

This table reports the robustness test results on the timeliness of stock recommendation downgrades. In column (1), we define co-lead and co-manager syndicate banks without restrictions on underwriting market shares. In column (2), we separate the independent group into independent banks and independent research firms. In column (3), we follow Hong and Kubik (2003) and include an additional control variable, analyst forecast accuracy in the regression. The dependent variable is “*Scaled # days*,” which is the number of days that the current recommendation is issued after the class period beginning date (i.e., wrongdoing starting date) divided by the duration of the class period, multiplied by 100. To formally examine whether the coefficients are different between co-lead syndicate and co-manager syndicate banks, or between independent bank and independent research firm in column (2), we conduct *F*-tests and report the results at the bottom of the table. See Appendix A1 for variable definitions. Standard errors (S.E.) are clustered allowing correlations within brokers. *, **, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

	(1)		(2)		(3)	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Affiliated analyst:						
Intercept (=lead manager main bank)	144.98	26.97 ***	151.90	32.15 ***	147.14	38.34 ***
=1 if co-manager main bank	-9.05	12.20	-7.07	12.78	-11.16	12.18
Reciprocity-pressured analyst:						
=1 if co-manager syndicate bank	-14.96	11.18	-8.50	11.97	-10.37	12.39
Reciprocity-resistant analyst:						
=1 if co-lead syndicate bank	-23.38	10.01 **	-25.64	10.01 **	-25.76	10.52 **
Independent analyst:						
=1 if independent group	-27.51	16.00 *			-20.74	16.59
=1 if independent bank			-29.97	19.05		
=1 if independent research firm			-9.54	17.90		
Analyst forecast accuracy					-0.10	0.14
R ²	0.08		0.08		0.08	
No. of observations	3734		3301		2801	
Firm/analyst/broker Characteristics	Yes		Yes		Yes	
Broker fixed effects	Yes		Yes		Yes	
<i>F</i> -test (co-lead syndicate = co-manager syndicate)	0.93		3.02*		3.95**	
<i>P</i> -value of <i>F</i> -test	0.34		0.08		0.05	
<i>F</i> -test (independent bank = independent research firm)			1.62			
<i>P</i> -value of <i>F</i> -test			0.21			

Online-Appendix B4 Reasons for filing lawsuits

This table reports the sample distribution of the reasons for filing securities class action lawsuits during 1996 to 2006.

Reasons for filing lawsuits	No.	%
IPO allocation, Tie-in/laddering Agreements	145	19.4
General financial misreporting	541	72.3
Artificially inflate securities prices	640	85.6
Inadequate internal control	87	11.6
Bond issuance related	55	7.4
Equity issuance related	293	39.2
Mergers and acquisitions related	122	16.3
Insider trading	255	34.1
SEC 1934 Sections 10(b) and rule 10b-5	643	86.0
SEC 1933 Section 11	246	32.9
GAAP violation/improper accounting	239	32.0
Investment banks also sued in the same filing	208	27.8
Total number of lawsuits	748	100.0

Online-Appendix B5 Frivolous lawsuits: Sample screening criteria in Dyck, Morse, Zingales (DMZ, 2010)

This table reports the robustness test results applying the lawsuit sample screening criteria in DMZ (2010) with different asset size restrictions. The dependent variable is “*Scaled # days*,” which is the number of days that the current recommendation is issued after the class period beginning date (i.e., wrongdoing starting date) divided by the duration of the class period, multiplied by 100. To formally examine whether the coefficients are different between co-lead syndicate and co-manager syndicate banks, we conduct *F*-tests and report the results at the bottom of the table. See Appendix A1 for variable definitions. Standard errors (S.E.) are clustered allowing correlations within brokers. *, **, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

	(1) without asset size restriction			(2) Assets >= 750 \$mil		(3) Assets >= 500 \$mil			
	Coef.	S.E.		Coef.	S.E.	Coef.	S.E.		
Affiliated analyst:									
Intercept (=lead manager main bank)	156.44	43.56	***	135.75	67.44	**	129.54	60.65	**
=1 if co-manager main bank	-3.82	17.77		-13.42	32.85		-12.58	28.96	
Reciprocity-pressured analyst:									
=1 if co-manager syndicate bank	-9.34	15.81		-5.94	27.51		-7.77	26.17	
Reciprocity-resistant analyst:									
=1 if co-lead syndicate bank	-30.56	13.09	**	-38.76	20.67	*	-39.15	19.64	**
Independent analyst:									
=1 if independent group	-27.47	24.66		-18.05	28.62		-15.25	26.71	
R ²	0.09			0.11			0.11		
No. of observations	2,361			1,309			1,475		
Firm/analyst/broker Characteristics	Yes			Yes			Yes		
Broker fixed effects	Yes			Yes			Yes		
<i>F</i> -test (co-lead syndicate = co-manager syndicate)	2.89*			2.82*			3.21*		
<i>P</i> -value of <i>F</i> -test	0.09			0.10			0.08		

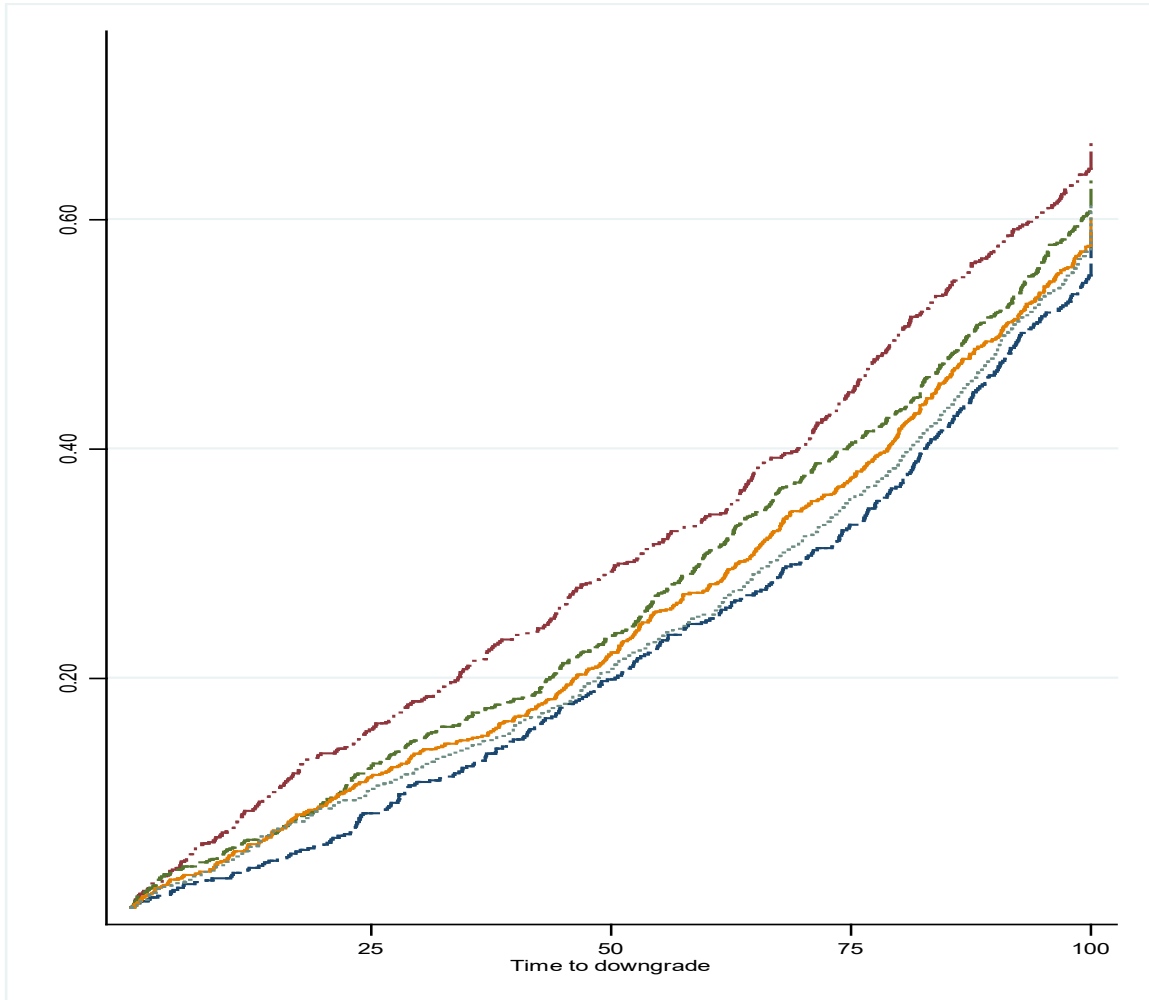
Online-Appendix B6 Addressing imprecision of class period as a proxy of a sued firm’s wrongdoing period

In this table, we employ different event windows to address the possibility that the class period is not a precise proxy for sued firm’s wrongdoing period. In the first regression, we extend the sample period by including three more months prior to the class period. In the second regression, we extend the sample period to six months prior to the class period. In the third regression, we follow the second regression but end the sample one day following the class period ending date. In the fourth regression, we use the same sample period as that in regression three, but do not include broker fixed effects. The dependent variable is “*Scaled # days*,” which is the number of days that the current recommendation is issued after the class period beginning date (i.e., wrongdoing starting date) divided by the duration of the class period, multiplied by 100. To formally examine whether the coefficients are different between co-lead syndicate and co-manager syndicate banks, we conduct *F*-tests and report the results at the bottom of the table. See Appendix A1 for variable definitions. Standard errors (S.E.) are clustered allowing correlations within brokers. *, **, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

	(1) 3 months prior to class period		(2) 6 months prior to class period		(3) 6 months prior-one day following class period		(4) 6 months prior-one day following class period					
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.				
Affiliated analyst:												
Intercept (=lead manager main bank)	189.04	35.54	***	200.46	35.47	***	159.40	34.39	***	118.24	26.98	***
=1 if co-manager main bank	-5.91	12.07		-6.03	11.47		0.04	3.98		-0.23	4.13	
Reciprocity-pressured analyst:												
=1 if co-manager syndicate bank	-11.16	11.75		-13.45	11.64		-7.16	5.45		-6.48	4.85	
Reciprocity-resistant analyst:												
=1 if co-lead syndicate bank	-31.56	9.57	***	-35.99	10.05	***	-18.06	5.91	***	-19.24	6.68	***
Independent analyst:												
=1 if independent group	-23.19	16.78		-23.75	15.92		-6.37	6.58		-8.98	6.00	
R ²	0.09			0.09			0.11			0.05		
No. of observations	3,561			3,839			2,946			2,946		
Firm/analyst/broker Characteristics	Yes			Yes			Yes			Yes		
Broker fixed effects	Yes			Yes			Yes			No		
<i>F</i> -test (co-lead syndicate = co-manager syndicate)	4.43**			4.58**			2.038			2.86*		
<i>P</i> -value of <i>F</i> -test	0.0365			0.0334			0.155			0.0923		

Online-Appendix B7 Failure functions of stock recommendation downgrades by analyst type

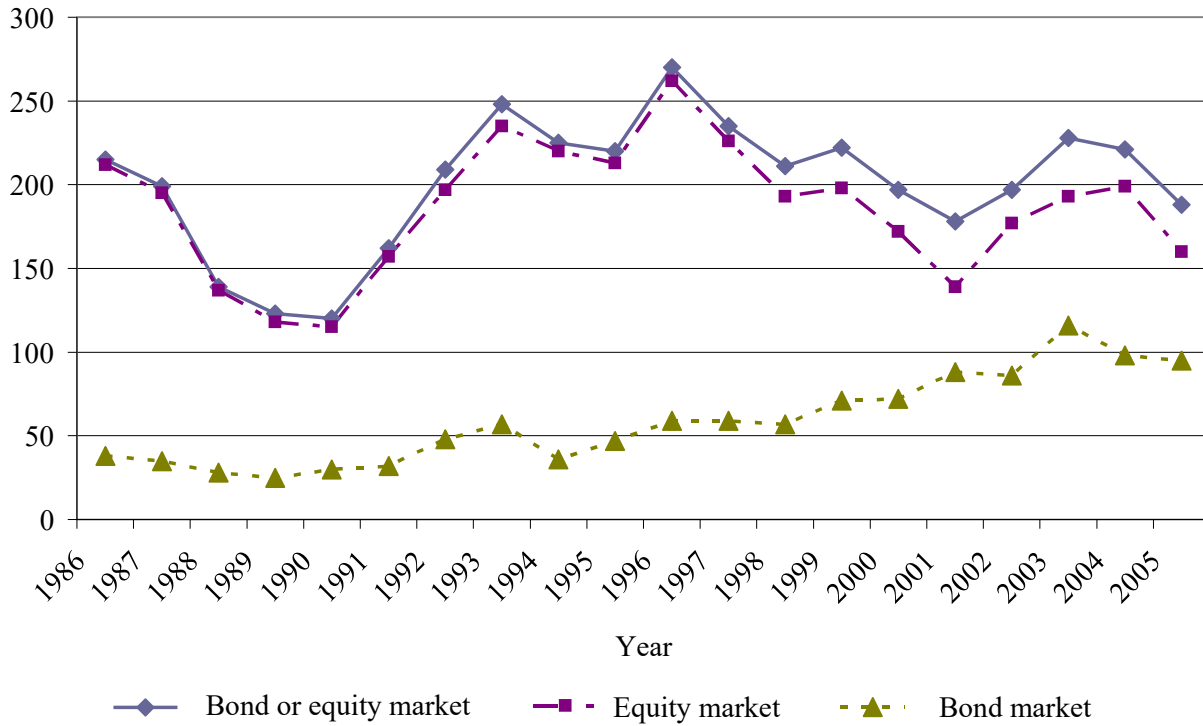
“Time to downgrade” represents “*Scaled # days*,” which is the number of days that the current recommendation is issued after the class period starting date (i.e., wrongdoing beginning date) divided by the duration of the class period and multiplied by 100. Time 0 (100) corresponds to class period starting (ending) date. See Appendix A1, Panel A for the definitions of analyst/bank types and Table 5 for sample description. The y-axis shows failure (downgrade) rates.



- — — — — Affiliated analyst/Lead manager main bank
- Affiliated analyst/Co-manager main bank
- Reciprocity-pressured analyst/Co-manager syndicate bank
- - - - Reciprocity-resistant analyst/Co-lead syndicate bank
- . . - Independent analyst/Independent group

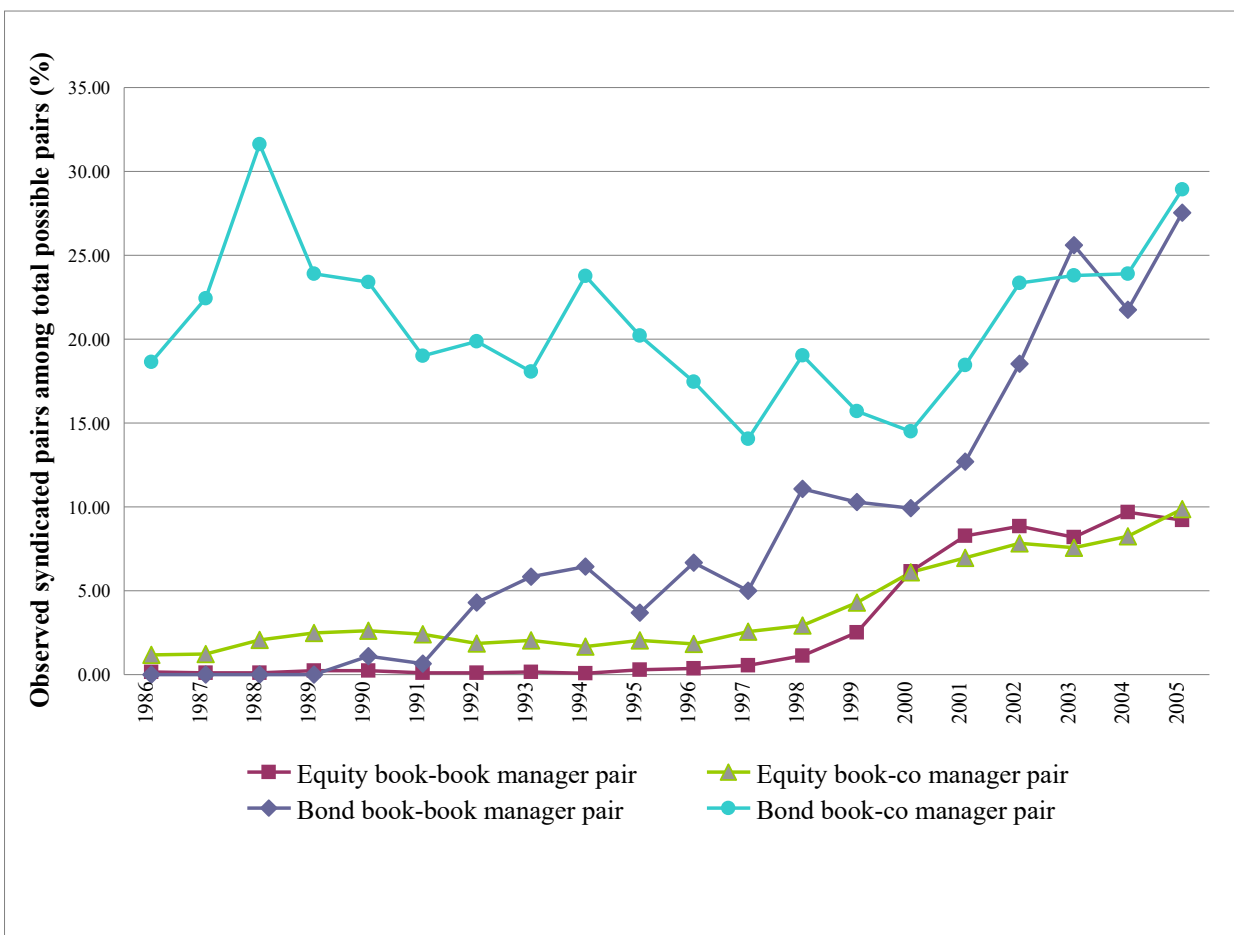
Online-Appendix B8 Total number of underwriters in the underwriting markets over time

This figure reports the total number of underwriters over time during 1986 through 2006. The data are obtained from the Thomson Financial/SDC Platinum database of securities offerings. The number of underwriters is counted based on parent company names.



Online-Appendix B9 Percentage of syndicated pairs based on possible pairs

This figure reports the percentage of observed pairs divided by possible pairs in bond or equity underwriting market over time. The possible book-co manager pair is calculated based on the number of available book managers and co-managers in a market each year. For example, if the numbers of book managers and co-managers served in the bond market in a year are 10 and 20, respectively, then the possible pair is 190 ($10 \times 20 - 10$) because book managers will not include themselves as co-managers in the same deals. In addition, book managers are active co-managers in deals organized by other book managers, 10 co-managers overlap with the book managers. The data are obtained from the Thomson Financial/SDC Platinum database of securities offerings.



Online-Appendix B10 Mean values of stock recommendations, forecast optimism, and target prices surrounding lawsuit events

In this table, we report the mean values of stock recommendations, earnings forecast optimism, ex ante target prices, and ex post target prices in Panels A to D, respectively, for the following four periods: (1) within two years prior to the class period, i.e. before the wrongdoing starts; (2) the class period; (3) from the end of class period (i.e., the time the wrongdoing is uncovered) to the lawsuit filing; (4) within two years following the lawsuit filing. Forecast optimism is defined as earnings forecast (item “Fiscal Year (1)”) minus actual reported earnings scaled by the absolute value of actual reported earnings. Ex ante target price is defined as target price (for 12-month horizon) minus opening price on the day target price is issued scaled by opening price. Ex post target price is defined as target price minus one-year ahead opening price scaled by one-year ahead opening price. Matched sample includes firms that were not sued in the same industry (classified by 2-digit SIC code) as sued firms with the closest number of analysts followed by the closest firm size (total assets) during the year prior to the class period. To formally examine whether the mean values are different between lead manager main bank and other groups, we conduct *t*-tests and report the significance level along other groups. The numbers of observations used in Panels A, B, C, D for sued (matched) sample is 75,740, 207,192, 66,946, and 62,998 (65,564, 103,656, 31,291, and 29,105), respectively. *, **, *** indicate statistical significance at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

	Sued sample				Matched sample			
	(1) Prior to class period	(2) Class period	(3) Prior to lawsuit	(4) After lawsuit	(1) Prior to class period	(2) Class period	(3) Prior to lawsuit	(4) After lawsuit
Panel A. Stock recommendations								
Affiliated analyst:								
Lead manager main bank	4.07	3.96	3.42	3.39	4.00	3.97	3.77	3.63
Co-manager main bank	4.15 ***	3.98	3.44	3.49 ***	4.04	3.90 *	3.67	3.69 *
Reciprocity-pressured analyst:								
Co-manager syndicate bank	4.02 *	3.96	3.53 ***	3.56 ***	4.01	3.91	3.84	3.77 ***
Reciprocity-resistant analyst:								
Co-lead syndicate bank	3.87 ***	3.76 ***	3.49 *	3.36	3.84 ***	3.79 ***	3.61 **	3.59
Independent analyst:								
Independent broker	3.91 ***	3.75 ***	3.41	3.47 ***	3.84 ***	3.73 ***	3.66 *	3.62
Independent research	3.93 ***	3.86 ***	3.50 *	3.59 ***	3.85 ***	3.86 ***	3.78	3.82 ***
Panel B. Forecast optimism								
Affiliated analyst:								
Lead manager main bank	0.15	0.48	0.54	0.38	0.17	0.27	0.17	0.16
Co-manager main bank	0.13	0.41 ***	0.52	0.40	0.18	0.29	0.28 *	0.20
Reciprocity-pressured analyst:								
Co-manager syndicate bank	0.16	0.42 **	0.56	0.29 ***	0.20	0.22 *	0.18	0.18
Reciprocity-resistant analyst:								
Co-lead syndicate bank	0.09 ***	0.39 ***	0.42 ***	0.25 ***	0.08 ***	0.12 ***	0.13	0.08 ***
Independent analyst:								
Independent broker	0.17	0.41 ***	0.42 ***	0.28 ***	0.17	0.16 ***	0.30 **	0.15
Independent research	0.16	0.45	0.45 *	0.29 ***	0.21 **	0.22 *	0.29 **	0.15

Online-Appendix B10 (continued)

	Sued sample				Matched sample				
	(1) Prior to class period	(2) Class period	(3) Prior to lawsuit	(4) After lawsuit	(1) Prior to class period	(2) Class period	(3) Prior to lawsuit	(4) After lawsuit	
Panel C. Ex ante target prices									
Affiliated analyst:									
Lead manager main bank	1.74	3.49	3.41	1.64	0.43	0.96	1.50	0.87	
Co-manager main bank	1.49	2.95 *	4.64 **	1.71	0.61	1.24	1.97	0.42 ***	
Reciprocity-pressured analyst:									
Co-manager syndicate bank	2.27	3.72	5.26 ***	1.74	0.98 **	0.93	1.57	0.72	
Reciprocity-resistant analyst:									
Co-lead syndicate bank	1.12 **	2.20 ***	4.60 **	1.39	0.66	0.32 ***	1.30	0.43 ***	
Independent analyst:									
Independent broker	1.54	1.35 ***	1.37 ***	1.13 ***	0.29	0.32 ***	0.27 ***	0.50 ***	
Independent research	1.68	1.90 ***	1.86 ***	1.50	0.81 *	0.74	1.14	0.64	
Panel D. Ex post target prices									
Affiliated analyst:									
Lead manager main bank	1.67	3.87	3.62	1.59	0.18	0.83	1.58	0.75	
Co-manager main bank	1.50	3.48	4.77 *	1.62	0.42	1.28	2.08	0.30 **	
Reciprocity-pressured analyst:									
Co-manager syndicate bank	2.23	4.31	5.82 ***	1.74	0.86 ***	0.55	1.69	0.63	
Reciprocity-resistant analyst:									
Co-lead syndicate bank	1.10 **	2.60 ***	4.93 **	1.36	0.50 *	0.19 ***	1.29	0.31 ***	
Independent analyst:									
Independent broker	1.42	1.51 ***	1.32 ***	0.99 ***	0.12	0.24 ***	0.15 ***	0.38 **	
Independent research	1.56	2.12 ***	1.68 ***	1.47	0.66 **	0.69	0.93	0.53	