

## Internet Appendix for

### “Short-Selling Bans around the World: Evidence from the 2007-09 Crisis”\*

This appendix contains additional estimates and figures that are mentioned and described in our paper but were not reported there to preserve space. Specifically, the appendix includes:

**Table IA.I:** Panel regressions whose dependent variable is the Amihud illiquidity measure, defined as the absolute value of the stock daily return divided by its trading volume on the same day. The specifications of the regressions in this table are the same as those shown in the first four columns of Table III of the paper, where the dependent variable is the bid-ask spread.

**Table IA.II:** Statistics on the quality of the match by country.

**Table IA.III:** Liquidity of banned and control stocks around the ban by country.

**Table IA.IV:** Bid-ask spreads and short-selling bans excluding bad matches.

**Table IA.V:** Cross-country regressions whose dependent variables are the country-specific estimated coefficients on the ban variables in the regressions from Table VI of the paper. The 18 observations used in the regression shown in column 1 include the estimated coefficients on the covered ban dummy for Italy, the Netherlands, and Switzerland, where the estimate for the naked ban dummy would also be available. This choice is dictated by the fact that in Italy and the Netherlands the covered ban lasted much longer than the naked ban (which in the Netherlands lasted only two weeks), and in Switzerland financials were always subject to a covered ban (and nonfinancials to a naked ban).

**Table IA.VI:** 2SLS panel regression of the bid-ask spread for countries that applied short-selling bans on financials only, where the short-selling dummy (capturing both naked bans and covered bans) is instrumented with the lagged monthly values of the average credit default swap on financials and of the Financial Stress Indicator.

---

\*Beber, Alessandro, and Marco Pagano, Internet Appendix for “Short-Selling Bans around the World: Evidence from the 2007-09 Crisis” *Journal of Finance*, DOI: 10.1111/j.1540-6261.2012.01802.x. Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

**Table IA.VII:** Liquidity of banned and control stocks around the ban lift, by country.

**Table IA.VIII:** Excess returns of banned and control stocks around the ban, by country.

**Table IA.IX:** Stock returns and short-selling bans excluding bad matches.

**Table IA.X:** 2SLS panel regression of excess stock returns for countries that applied short-selling bans on financials only, where the short-selling dummy (capturing both naked bans and covered bans) is instrumented with the lagged monthly values of the average credit default swap on financials and of the Financial Stress Indicator.

**Table IA.XI:** Excess returns of banned and control stocks around the ban lift date, by country.

**Table IA.XII:** Regression of the returns on a dummy variable for short-selling bans in a 50-day window around the lifting of the ban.

**Figure IA.1:** Ratio between average bid-ask spread and bid-ask spread 100 days before ban in Australia, Italy, Japan, South Korea, and Spain.

**Figure IA.2:** Ratio between average bid-ask spread for stocks with and without ban in Canada and the U.S.

**Figure IA.3:** Ratio between average bid-ask spread for stocks with and without ban in Switzerland and the U.K.

**Figure IA.4:** Ratio between the average bid-ask spread of stocks subject to bans and the average bid-ask spread of exempt stocks for countries with partial bans.

## REFERENCES

La Porta, Rafael, Florencio Lopez de Silanes, Andrei Shleifer, and Robert Vishny, 1998, Law and finance, *Journal of Political Economy* 106, 1113-1155.

Stock, James H., and Motohiro Yogo, 2005, Testing for Weak Instruments in Linear IV Regression. Chapter 5 in J.H. Stock and D.W.K. Andrews (eds), *Identification and Inference for Econometric Models: Essays in Honor of Thomas J. Rothenberg*, Cambridge University Press.

**Table IA.I****Amihud Illiquidity Measure and Short-Selling Bans: Regression Analysis**

The dependent variable is the percentage Amihud illiquidity measure for all 30 countries. *Naked Ban* is a dummy variable that equals one if naked short sales are forbidden and covered sales are allowed, and zero otherwise. *Covered Ban* is a dummy variable that equals one if even covered short sales are forbidden, and zero otherwise. *Disclosure* is a dummy variable that equals one if the seller has to disclose his position, and zero otherwise. *Volatility* is a moving standard deviation of returns based on the previous 20 observations. The regressions are estimated using OLS on daily data with robust standard errors clustered at the stock level in columns 1, and 2, and AR(1) correction in columns 3 and 4. All regressions include fixed effects at the stock level. The numbers reported in parentheses below the coefficient estimates are *t*-statistics. The estimates marked with three (two) asterisks are significantly different from zero at the 1% (5%) level.

	(1)	(2)	(3)	(4)
Constant	0.56*** (591.24)	0.73*** (211.73)	0.69*** (763.55)	0.66*** (691.97)
Naked Ban	0.20*** (21.96)	0.20*** (4.20)	0.39*** (32.94)	0.40*** (33.82)
Covered Ban	0.12*** (18.39)	0.12*** (3.07)	0.21*** (19.13)	0.21*** (19.49)
Disclosure	-0.12*** (-13.63)	-0.10** (-2.24)	-0.20*** (-16.44)	-0.20*** (-16.08)
Volatility				0.33*** (43.33)
Stock-Level Fixed Effects	Yes	Yes	Yes	Yes
AR(1) Disturbances	No	No	Yes	Yes
Number of Observations	4,373,944	707,054	4,357,092	4,357,092
Included Stocks	All	Financials	All	All
Number of Stocks	16,852	2,804	16,822	16,822

**Table IA.II****Statistics on the Quality of the Match by Country**

The table provides summary statistics by country on the quality of the match between stocks subject to the ban and control stocks chosen according to the methodology described in the text. Since size and price are expressed in local currencies, the coefficient of variation provides a comparable measure of variability across countries.

Country	No. Obs.	Size (Millions)			Price			Distance Measure					
		Mean	Std.Dev.	Coeff.Var.	Mean	Std.Dev.	Coeff.Var.	Min	Q25	q50	Mean	q75	max
Austria	61	4605.15	3038.35	0.66	25.50	12.59	0.49	0.0595	0.0640	0.1103	0.1466	0.2292	0.3063
Belgium	347	15502.76	12511.48	0.81	23.09	19.41	0.84	0.2020	0.6826	0.7247	1.1749	1.5494	2.7157
Canada	553	27403.39	21806.32	0.80	58.35	74.91	1.28	0.0002	0.0021	0.0623	0.0956	0.1318	0.4828
Denmark	747	22282.08	45324.55	2.03	358.50	426.88	1.19	0.0330	0.0521	0.0668	0.3560	0.1485	3.4626
France	1069	23195.38	33495.82	1.44	38.09	28.01	0.74	0.0032	0.0130	0.0390	0.0607	0.1086	0.1564
Germany	775	11740.53	12855.53	1.09	106.38	204.26	1.92	0.0082	0.0210	0.0875	0.1259	0.2783	0.3272
Ireland	225	3561.35	2094.89	0.59	4.89	1.97	0.40	0.1038	0.1594	0.2491	0.2256	0.2918	0.3003
Netherlands	448	8126.86	12604.97	1.55	14.31	14.10	0.99	0.0088	0.0557	0.0967	0.5570	0.5571	3.5910
Norway	439	9036.92	18925.35	2.09	285.78	659.76	2.31	0.0041	0.0176	0.0237	0.1369	0.0617	0.6279
Portugal	393	12422.15	22110.05	1.78	5.80	4.25	0.73	0.0176	0.0485	0.0919	0.6075	0.7702	2.5072
U.K.	1486	629103.50	846214.10	1.35	341.33	332.19	0.97	0.0015	0.0048	0.0289	0.1228	0.1768	0.6637
U.S.	39045	4888.02	26777.98	5.48	19.06	26.45	1.39	0.0000	0.0005	0.0014	0.0155	0.0042	2.7570

**Table IA.III**

**Liquidity of Banned and Control Stocks around the Ban by Country**

The table provides summary statistics by country on the liquidity of banned and control stocks around the ban. The liquidity measure is the quoted percentage bid-ask spread at market close. In columns (A) and (B), three asterisks indicate that the median bid-ask spread for stocks subject to the ban is significantly different from the median bid-ask spread for control stocks, at the 1% level, based on a Wilcoxon test for differences between medians. In column (C), three (one) asterisks indicate that the difference (during versus before the ban) of difference (banned versus control stocks) of median bid-ask spreads is significantly different from zero at the 1% (5%) percent level, based on a Wilcoxon test.

Country	Before the Ban					During the Ban					Difference			
	Subject to Ban		Control Stocks		Diff. of Medians (A)	Subject to Ban		Control Stocks		Diff. of Medians (B)	Difference (C)			
	Median	Mean	Median	Mean		Median	Mean	Median	Mean					
Austria	0.3715	0.5462	0.2370	0.5344	0.1345	0.5915	0.8393	0.3861	0.4428	0.2054	***	0.0709	***	
Belgium	0.1971	1.9124	0.1659	0.3428	0.0312	***	0.5428	2.1756	0.2831	0.6426	0.2597	***	0.2285	***
Canada	0.2568	0.8164	0.2811	2.3392	-0.0243		0.4620	1.1171	0.2454	1.9950	0.2167	***	0.2410	***
Denmark	1.1695	1.5811	0.6689	1.1275	0.5006	***	1.6807	2.4841	0.6431	1.1518	1.0376	***	0.5370	***
France	0.2072	0.4939	0.1323	0.9160	0.0749		0.4340	0.9282	0.1537	1.5128	0.2803	***	0.2054	***
Germany	0.2926	0.3897	0.2580	0.4583	0.0346		0.5786	0.8035	0.2775	0.5299	0.3011	***	0.2665	***
Ireland	0.4900	0.5895	0.5618	1.6975	-0.0718		1.1905	1.3785	0.9677	2.6653	0.2228		0.2946	
Netherlands	0.2158	0.4468	0.1236	0.2401	0.0922	***	0.5644	0.8670	0.1806	0.3488	0.3838	***	0.2916	***
Norway	1.3333	3.4645	1.6438	3.4221	-0.3105		1.4760	5.3199	1.5503	3.6629	-0.0743	**	0.2362	***
Portugal	0.4640	1.7007	0.2739	0.3652	0.1901	***	0.9950	2.2255	0.2812	0.4495	0.7138	***	0.5237	*
U.K.	0.1369	0.9827	0.1611	0.7876	-0.0242	***	0.4407	2.0404	0.1936	1.1562	0.2471	***	0.2713	***
U.S.	0.5962	2.5341	0.3831	1.7115	0.2131	***	1.3736	3.6019	0.4581	2.1432	0.9155	***	0.7024	***

**Table IA.IV****Bid-Ask Spreads and Short-Selling Bans Excluding Bad Matches**

The dependent variable is the percentage quoted bid-ask spread at the market close. *Naked Ban* is a dummy variable that equals one if naked short sales are forbidden and covered sales are allowed, and equals zero otherwise. *Covered Ban* is a dummy variable that equals one if even covered short sales are forbidden, and is zero otherwise. *Disclosure* is a dummy variable that equals one if the seller has to disclose his position and zero otherwise. The regressions are estimated using OLS with robust standard errors, matched pair-level fixed effects, and day fixed effects, using daily data for the 13 countries that banned short sales only for financial stocks: Belgium, Canada, Germany, Denmark, France, the Netherlands, Ireland, Norway, Austria, Portugal, the U.K., and the U.S. The estimates are based on matched stocks using the event study methodology described in the text for a window spanning 50 days around the ban enactment. Columns (2) and (3) represent sub-samples excluding pairs where the distance of the matching variables was large (the largest 1% or 25% for each country). Column (4) excludes from the sample the countries with the largest mean distance measure, where presumably the matching was harder to implement. The numbers reported in parentheses below the coefficient estimates are *t*-statistics. The coefficient estimates marked with three (two) asterisks are significantly different from zero at the 1% (5%) level.

	(1) Full Sample	(2) Exclude 1% Worse Matches	(3) Exclude 25% Worse Matches	(4) Exclude Belgium, Netherlands, Portugal
Constant	0.71 <sup>***</sup> (42.76)	0.71 <sup>***</sup> (43.00)	0.61 <sup>***</sup> (34.55)	0.72 <sup>***</sup> (42.87)
Naked Ban	0.56 <sup>***</sup> (2.82)	0.67 <sup>***</sup> (3.09)	0.72 <sup>***</sup> (2.83)	0.67 <sup>***</sup> (3.17)
Covered Ban	1.19 <sup>***</sup> (3.66)	1.14 <sup>***</sup> (3.29)	1.17 <sup>***</sup> (2.96)	1.23 <sup>***</sup> (2.98)
Disclosure	-0.55 <sup>*</sup> (-1.75)	-0.49 <sup>*</sup> (-1.57)	-0.51 (-1.33)	-0.58 (-1.45)
Day Fixed Effects	Yes	Yes	Yes	Yes
Stock-Level Fixed Effects	Yes	Yes	Yes	Yes
Methodology	Event study	Event study	Event study	Event study
Number of Observations	45,588	44,945	34,330	43,941
Number of Matched Pairs	783	772	588	755

**Table IA.V****Bid-ask Spreads and Short-Selling Bans: Country-by-Country Estimates**

The table reports the estimates of a cross-country regression whose dependent variables are the ban dummies' coefficient obtained in the individual country regressions from Table VI in the paper. *Median Size* and *Median Volatility* are the country-level medians of total market value and stock return volatility in the first six months of 2008. *Ownership Concentration* is the average percentage of common shares owned by the three largest shareholders in the 10 largest nonfinancial, privately owned domestic firms in a given country (drawn from La Porta et al. (1998)).

	All Countries with Ban (1)	Countries with Covered Ban (2)
Constant	0.99*** (5.11)	1.44*** (7.05)
Median Size	-0.11 (-0.51)	-0.44* (-1.80)
Median Volatility	0.45* (1.84)	0.49** (2.41)
Ownership Concentration	0.44* (1.80)	1.13*** (4.36)
R <sup>2</sup>	0.26	0.79
Observations	18	10

**Table IA.VI****Bid-ask Spreads and Short-Selling Bans Applying to Financial Stocks Only:  
2SLS Estimates**

The dependent variable is the percentage quoted bid-ask spread at the market close. The Ban dummy variable equals one if either naked or covered short sales are forbidden, and is zero otherwise. The regression is estimated with 2SLS, using daily data for the 13 countries that banned short sales only for financial stocks: Belgium, Canada, Germany, Denmark, France, the Netherlands, Ireland, Norway, Austria, Portugal, the U.K. and the U.S. The *Ban* dummy variable is instrumented with the lagged monthly values of the average credit default swap on financials and of the Financial Stress Indicator. The specification includes stock-level fixed effects and day fixed effects: for computational reasons the estimation is implemented by replacing dependent and independent variables by their deviations from the respective stock-level average and including daily fixed effects in the regression. The number reported in parentheses below each coefficient estimate is its *t*-statistic, obtained with robust standard errors. The coefficient estimates marked with three asterisks are significantly different from zero at the 1% level, using the relevant critical values (e.g., critical values for the Cragg-Donald F-statistic are from Stock and Yogo (2005)).

Coefficient of Ban Variable	0.31 <sup>***</sup> (16.17)
Day Fixed Effects	Yes
Stock-Level Fixed Effects	Yes
First-Stage Kleibergen-Paap F-test	217.84 <sup>***</sup>
First-Stage Kleibergen-Paap LM statistic	436.74 <sup>***</sup>
First-Stage Cragg-Donald Wald F-test	280.83 <sup>***</sup>
Hansen J-Statistic (Robust Sargan Test)	0.67
Chi-sq(1) P-value	0.41



**Table IA.VII**

**Liquidity of Banned and Control Stocks around the Ban Lift by Country**

The table provides summary statistics by country on the liquidity of banned and control stocks around the lift of the ban. The liquidity measure is the quoted percentage bid-ask spread at market close. In column (A) and (B), three (two) asterisks indicate that the median bid-ask spread for stocks subject to the ban is significantly different from the median bid-ask spread for control stocks, at the 1% (5%) level, based on a Wilcoxon test for differences between medians. In column (C), three (two) asterisks, indicate that the difference (during versus after the ban) of difference (banned versus control stocks) of median bid-ask spreads is significantly different from zero at the 1% (5%) level, based on a Wilcoxon test.

Country	After the Ban						During the Ban						Difference	
	Subject to Ban		Control Stocks		Diff. of		Subject to Ban		Control Stocks		Diff. of		of	
	Median	Mean	Median	Mean	Medians	(A)	Median	Mean	Median	Mean	Medians	(B)	Difference	(C)
Canada	0.4900	1.2072	0.5500	2.4382	-0.0600	**	0.4620	1.1171	0.2454	1.9950	0.2167	*	0.2767	***
Netherlands	0.4200	0.9119	0.1500	0.2218	0.2700	***	0.4300	0.8715	0.1400	0.2887	0.2900	***	0.0200	
U.K.	0.3000	2.6889	0.1989	1.3918	0.1011	***	0.4350	2.1969	0.2300	1.5204	0.2050	***	0.1039	**
U.S.	0.9997	3.5610	0.5900	2.6881	0.4097	***	1.3736	3.6019	0.4581	2.1432	0.9155	***	0.5058	***

**Table IA.VIII**

**Excess Returns of Banned and Control Stocks around the Ban by Country**

The table provides summary statistics by country on the excess returns of banned and control stocks around the ban. In columns (A) and (B), three asterisks indicate that the median excess return for stocks subject to the ban is significantly different from the median return for control stocks, at the 1% level, based on a Wilcoxon test for differences between medians. In column (C), three (two, and one) asterisks indicate that the difference (during versus before the ban) of difference (banned versus control stocks) of median returns is significantly different from zero at the 1% (5%, and 10%) level, based on a Wilcoxon test.

Country	Before the Ban				Diff. of Medians (A)	During the Ban				Diff. of Medians (B)	Difference of Difference (C)			
	Subject to Ban		Control Stocks			Subject to Ban		Control stocks						
	Median	Mean	Median	Mean		Median	Mean	Median	Mean					
Austria	-0.0163	-0.0183	-0.0105	-0.0156	-0.0058	-0.0021	-0.0020	-0.0018	-0.0010	-0.0003	0.0055			
Belgium	-0.0031	0.0000	-0.0005	-0.0006	-0.0026	-0.0067	-0.0299	-0.0038	-0.0025	-0.0029	-0.0004	*		
Canada	-0.0007	-0.0006	-0.0002	-0.0025	-0.0005	-0.0004	-0.0053	-0.0141	-0.0214	0.0137	***	0.0142	**	
Denmark	-0.0040	-0.0155	-0.0064	-0.0144	0.0024	-0.0021	-0.0158	-0.0078	-0.0018	0.0057		0.0032	**	
France	0.0001	0.0022	-0.0015	-0.0007	0.0016	-0.0027	-0.0081	-0.0076	-0.0084	0.0049		0.0033		
Germany	-0.0030	-0.0026	0.0001	0.0025	-0.0031	-0.0135	-0.0152	-0.0018	-0.0041	-0.0117		-0.0085		
Ireland	-0.0074	-0.0084	-0.0011	-0.0044	-0.0064	0.0028	-0.0225	-0.0098	-0.0102	0.0126		0.0190		
Netherlands	-0.0008	-0.0032	0.0018	0.0019	-0.0026	-0.0094	-0.0199	-0.0068	-0.0043	-0.0026		0.0000		
Norway	-0.0003	-0.0161	-0.0002	-0.0124	-0.0001	-0.0004	-0.0047	-0.0007	-0.0122	0.0003		0.0004		
Portugal	-0.0008	0.0000	-0.0006	-0.0005	-0.0002	-0.0099	-0.0098	-0.0083	-0.0058	-0.0016		-0.0015		
U.K.	-0.0001	-0.0028	-0.0002	-0.0027	0.0001	-0.0042	-0.0063	-0.0030	-0.0062	-0.0012		-0.0013		
U.S.	-0.0006	-0.0013	-0.0009	-0.0035	0.0003	***	-0.0073	-0.0151	-0.0134	-0.0216	0.0061	***	0.0058	***

**Table IA.IX**

**Stock Returns and Short-Selling Bans Excluding Bad Matches**

The dependent variable is the weekly excess return for each stock, defined as the difference between the raw return and the country equally-weighted market index. We drop all observations in which the raw stock return is zero, to avoid nontrading biases. *Naked Ban* is a dummy variable that equals one if naked short sales are forbidden and covered sales are allowed, and equals zero otherwise. *Covered Ban* is a dummy variable that equals one if even covered short sales are forbidden, and equals zero otherwise. *Disclosure* is a dummy variable that equals one if the seller has to disclose his position and zero otherwise. The specifications in columns 1, 2, and 3 are estimated only on data for the U.S. and those in columns 4, 5, and 6 are estimated with data for all the other countries with partial bans. Columns 2, 3, 5 and 6 represent subsamples excluding pairs in which the distance of the matching variables was large (the largest 1% or 25% for each country). All estimates are based on matched stocks using the event study methodology described in the text. All regressions are estimated using OLS with robust standard errors, and include fixed effects at the matched-stock level and weekly time effects. The numbers reported in parentheses below the coefficient estimates are *t*-statistics. The coefficient estimates marked with three (two) asterisks are significantly different from zero at the 1% (5%) level.

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Exclude 1% Worse Matches	Exclude 25% Worse Matches	Full Sample	Exclude 1% Worse Matches	Exclude 25% Worse Matches
Constant	0.0022 <sup>***</sup> (10.78)	0.0022 <sup>***</sup> (10.79)	0.0028 <sup>***</sup> (12.95)	-0.0008 <sup>***</sup> (-1.77)	-0.0007 (-0.93)	-0.0007 (-0.83)
Naked Ban				-0.0081 <sup>***</sup> (-3.13)	-0.0079 <sup>***</sup> (-2.86)	-0.0080 <sup>***</sup> (-2.37)
Covered Ban	0.0041 <sup>***</sup> (3.77)	0.0041 <sup>***</sup> (3.78)	0.0030 <sup>***</sup> (2.67)	-0.0025 (-0.67)	-0.0026 (-0.63)	-0.0012 (-0.26)
Disclosure				-0.0006 (-0.17)	-0.0013 (-0.37)	-0.0006 (-0.15)
Stock-Level Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Weekly Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Countries in the Sample	U.S.	U.S.	U.S.	Countries with partial ban except U.S.	Countries with partial ban except U.S.	Countries with partial ban except U.S.
Number of Observations	43,973	43,516	32,869	7,695	6,974	5,735
Number of Matched Pairs	677	670	506	120	109	90

**Table IA.X**  
**Stock Returns and Short-Selling Bans Applying to Financial Stocks Only:**  
**2SLS Estimates**

The dependent variable is the excess return for each stock, defined as the difference between the raw return and the country equally weighted market index. The *Ban* dummy variable equals one if either naked or covered short sales are forbidden, and equals zero otherwise. The regression is estimated with 2SLS for the 13 countries that banned short sales only for financial stocks: Belgium, Canada, Germany, Denmark, France, the Netherlands, Ireland, Norway, Austria, Portugal, the U.K., and the U.S. The Ban dummy variable is instrumented with the lagged monthly values of the average credit default swap on financials and of the Financial Stress Indicator. The specification includes stock-level fixed effects and day fixed effects: for computational reasons the estimation is implemented by replacing dependent and independent variables by their deviations from the respective stock-level average and including daily fixed effects in the regression. The number reported in parentheses below each coefficient estimate is its *t*-statistic, obtained with robust standard errors. The coefficient estimates marked with three asterisks are significantly different from zero at the 1% level, using the relevant critical values (e.g., critical values for the Cragg-Donald F-statistic are from Stock and Yogo (2005)).

Dependent Variable: Excess Stock Return	
Ban Instrumented Variable	0.0015 (0.12)
Day Fixed Effects	Yes
Stock-Level Fixed Effects	Yes
First-Stage Kleibergen-Paap F-test	2272.17***
First-Stage Kleibergen-Paap LM statistic	2269.25***
First-Stage Cragg-Donald Wald F-test	1136.09***
Hansen J-Statistic (Robust Sargan Test)	4.03
Chi-sq(1) P-value	0.05

**Table IA.XI**

**Excess Returns of Banned and Control Stocks around the Ban Lift by Country**

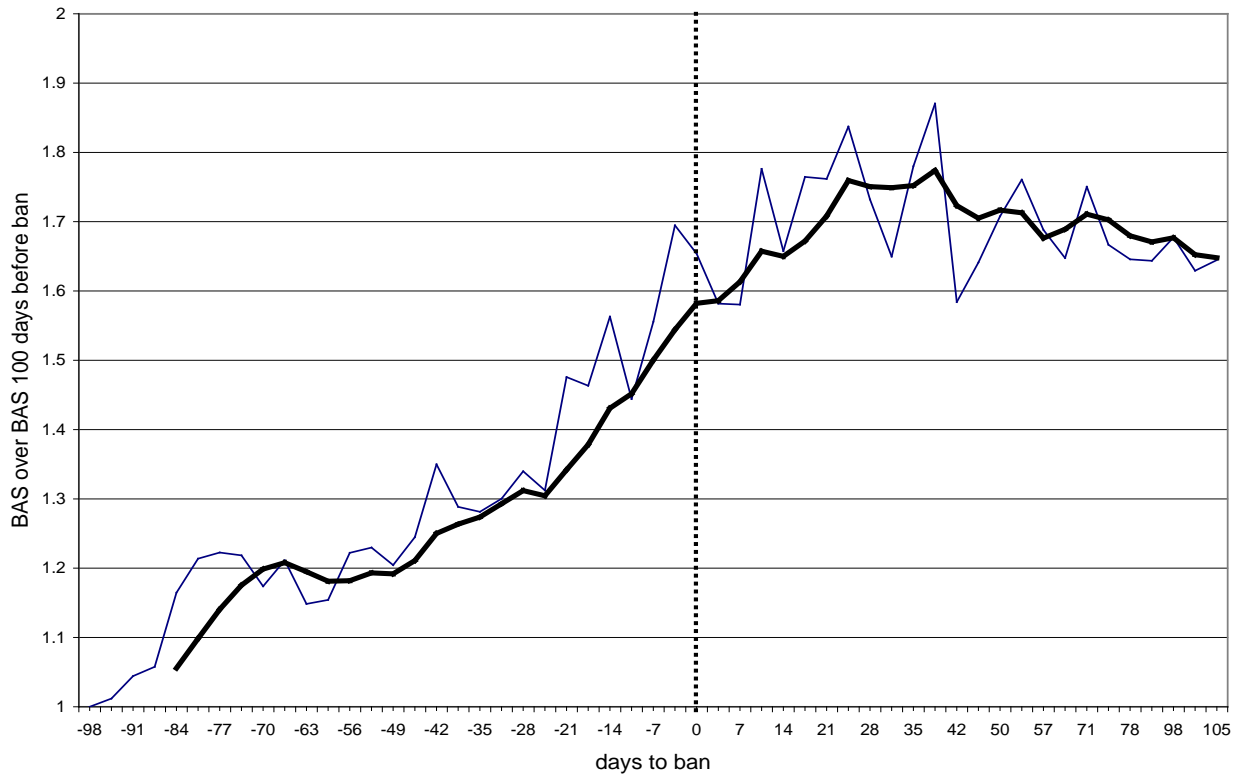
The table provides summary statistics by country on the excess returns of banned and control stocks around the lift of the ban. In columns (A) and (B), three (one) asterisks indicate that the median excess return for stocks subject to the ban is significantly different from the median return for control stocks, at the 1% (10%) level, based on a Wilcoxon test for differences between medians. In column (C), three asterisks indicate that the difference (during versus after the ban) of difference (banned versus control stocks) of median returns is significantly different from zero at the 1% level, based on a Wilcoxon test.

Country	After the Ban					(A)	During the Ban					(B)	Difference	
	Subject to Ban		Control Stocks		Diff. of		Subject to Ban		Control Stocks		Diff. of		Difference	(C)
	Median	Mean	Median	Mean	Medians		Median	Mean	Median	Mean	medians			
Canada	-0.0031	-0.0022	0.0001	0.0014	-0.0032		-0.0004	-0.0047	-0.0100	-0.0199	0.0096	***	0.0128	***
Netherlands	-0.0014	-0.0044	-0.0008	-0.0009	-0.0006		0.0001	0.0073	0.0001	0.0029	0.0000		0.0006	
U.K.	-0.0001	-0.0044	-0.0001	-0.0049	0.0000		0.0001	-0.0018	0.0002	0.0006	-0.0001		-0.0001	
U.S.	-0.0010	-0.0060	-0.0034	-0.0069	0.0024	*	-0.0073	-0.0142	-0.0100	-0.0201	0.0027	***	0.0003	***

**Table IA.XII****Stock Returns and Short-Selling Ban Lifts**

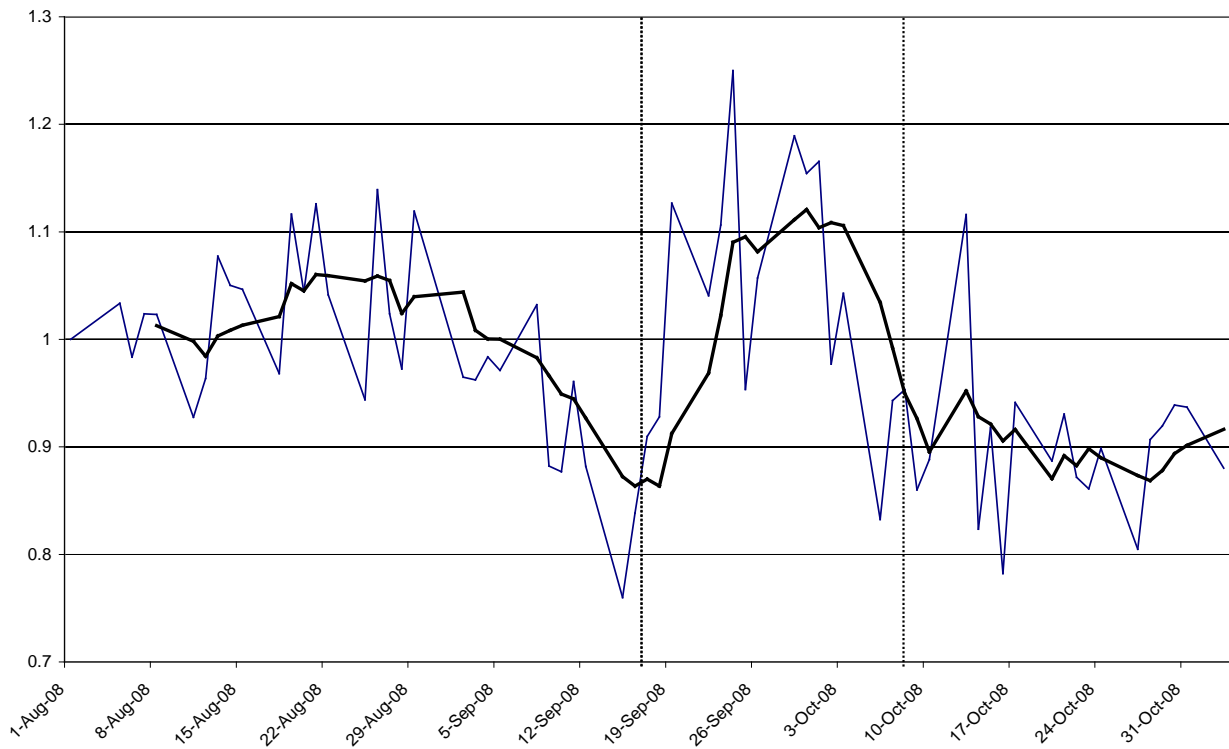
The dependent variable is the daily excess return for each stock, defined as the difference between the raw return and the country equally weighted market index. We drop all observations in which the raw stock return is zero, to avoid nontrading biases. *Covered Ban Lift* is a dummy variable that equals one after bans of covered short sales are lifted, and zero otherwise. The specification in column 1 is estimated with data for the U.S. only and that in column (2) is estimated with data for all the other countries with partial ban lifts (i.e., Canada, the Netherlands, and the U.K.). All estimates are based on matched stocks using the event study methodology described in the text, spanning a 50-day window before and after the ban lift. Both regressions are estimated using OLS with robust standard errors clustered at the stock level, and include fixed effects for matched stock pairs and day time effects. The numbers reported in parentheses below the coefficient estimates are *t*-statistics. The coefficient estimates marked with three asterisks are significantly different from zero at the 1% level.

	(1)	(2)
Constant	0.0002 (0.25)	0.0001 (0.37)
Covered Ban Lift	-0.0159*** (-2.89)	-0.0058 (-0.44)
Stock-Level Fixed Effects	Yes	Yes
Daily Fixed Effects	Yes	Yes
Countries in the Sample	U.S.	Countries with Partial Ban Lift, except U.S.
Methodology	Event study	Event study
Number of Observations	31,744	2,622
Number of Stocks	677	43



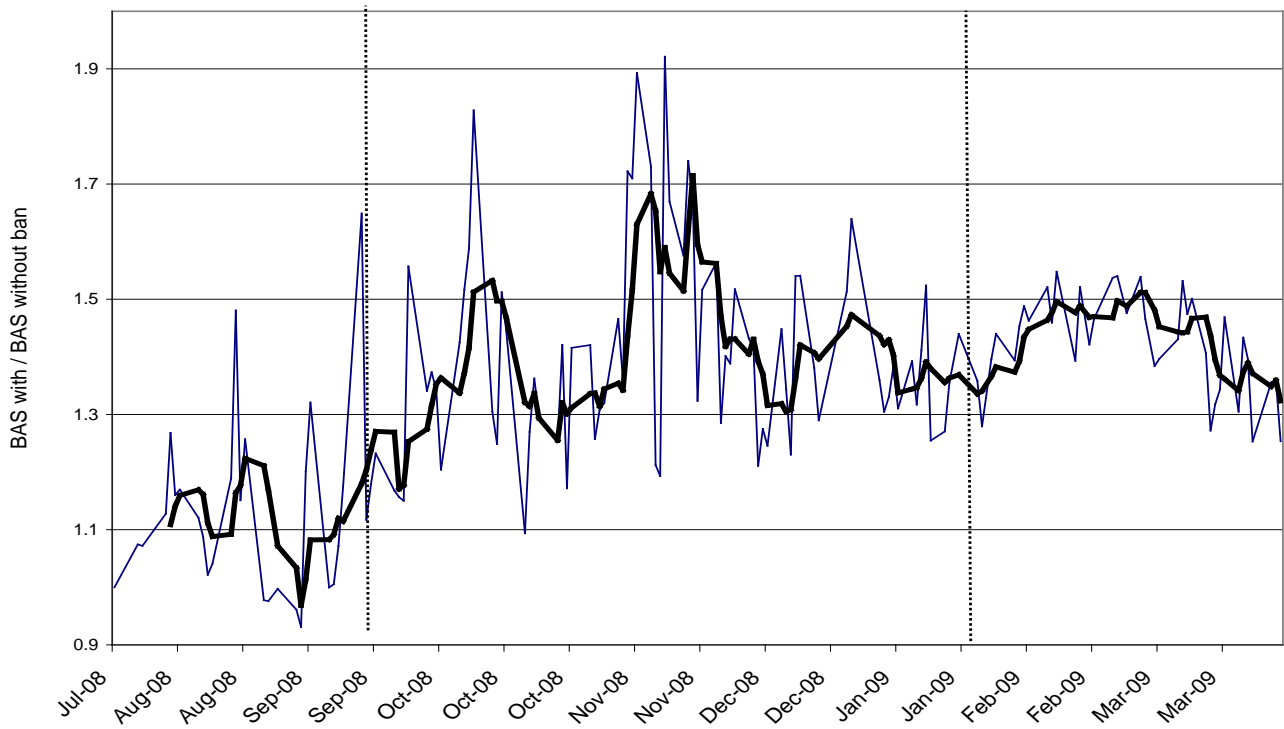
**Figure IA.1. Average bid-ask spread over bid-ask spread 100 days before the ban in Australia, Italy, Japan, South Korea, and Spain.**

(date 0: start of ban; thin line: daily values; bold line: 5-day moving average)

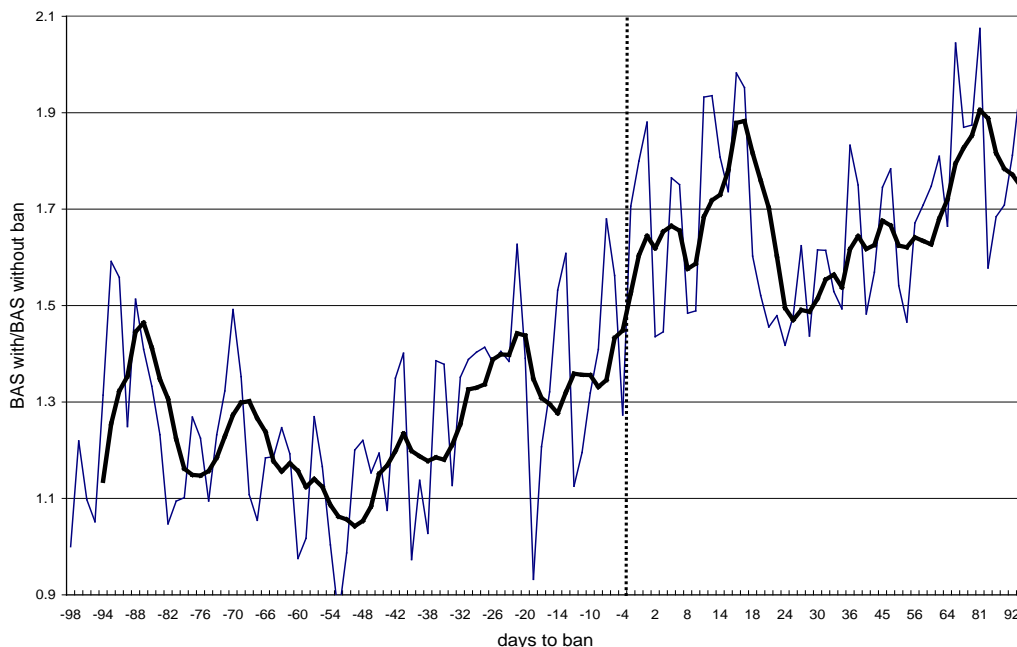


**Figure IA.2. Ratio between average bid-ask spread for stocks with and without ban in Canada and the U.S.**

(vertical lines: start and end of ban; thin line: daily values; bold line: 5-day moving average)



**Figure IA.3. Ratio between average bid-ask spread for stocks with and without ban in Switzerland and the U.K.**  
 (vertical lines: start and end of ban; thin line: daily values; bold line: 5-day moving average)



**Figure IA.4. Ratio between the average bid-ask spread of stocks subject to bans and the average bid-ask spread of exempt stocks for countries with partial bans.** The thin line plots daily values and the thick line plots the five-day moving average of this ratio. The data correspond to stocks from Austria, Belgium, Denmark, France, Germany, Ireland, the Netherlands, Norway, and Portugal. Date 0 marks the inception date of the ban.