

Analyst Coverage and Global Cross-listings:
The Role of Market Forces and Legal
Institutions in Bonding Cross-listed Firms

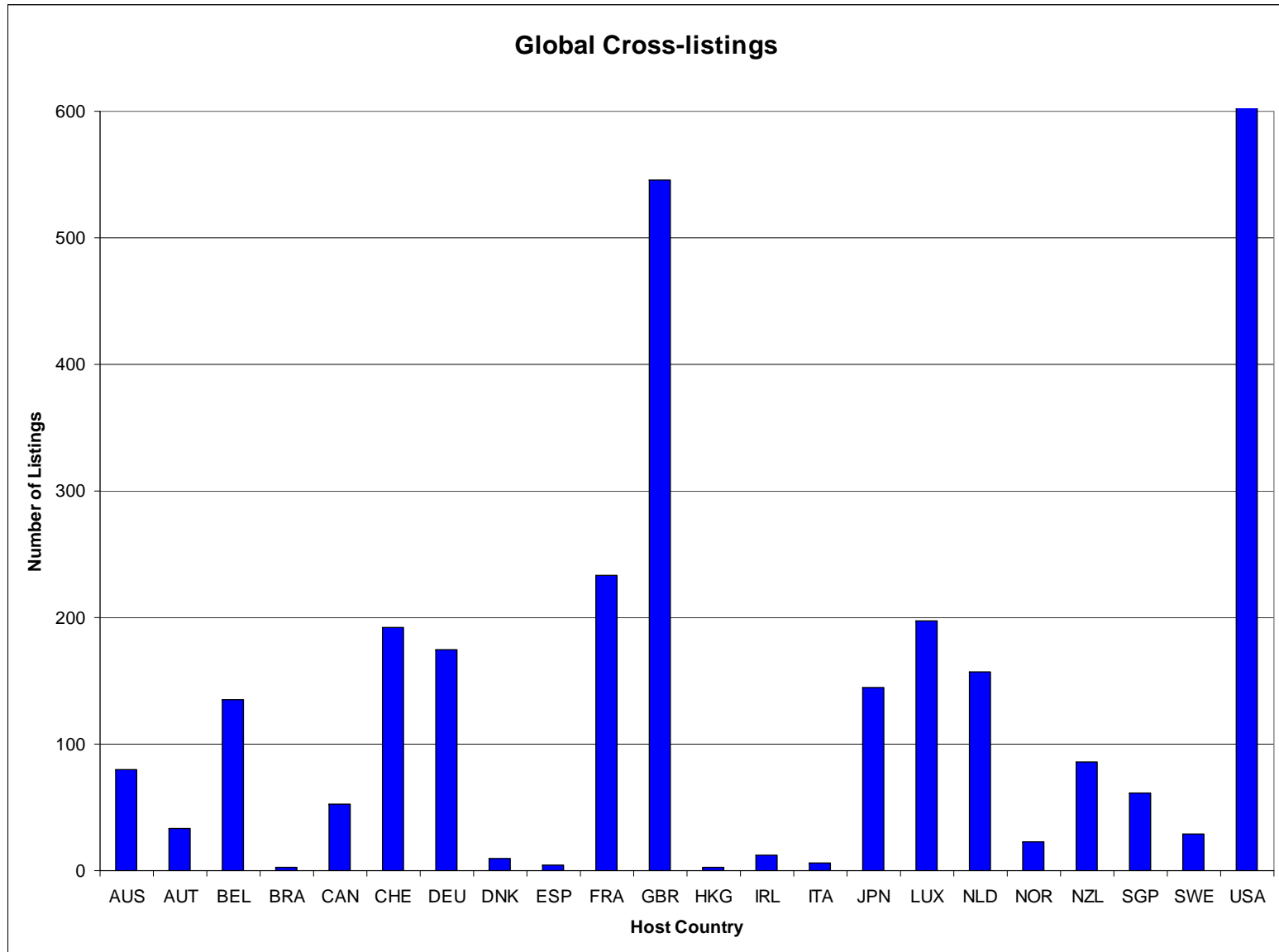
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Global Cross-listing Activity

- The academic literature and popular press focus on cross-listings in the U.S. and U.K.
 - This focus is warranted given most cross-listings take place in these markets.
- However, many firms cross-list on other exchanges, and these listings may shed light on important research questions

Global Cross-listing Sample

- I utilize a sample which includes cross-listings on several of the world's major exchanges through 2004
- The original sample was compiled by Sergei Sarkissian and Michael Schill (Sarkissian and Schill, 2004, 2008) and includes over 3,500 cross-listings



Cross-listings from Select Home and Host Countries

Home Country		Host Country											Total
		AUS	BEL	CHE	DEU	FRA	GBR	JPN	LUX	NLD	NZL	USA	
Australia	AUS			2	2	2	26	6	1		80	34	153
Canada	CAN	7	13	10	2	14	36	6		5	2	511	606
China	CHN						5					24	29
Germany	DEU		8	33		17	12	10	7	15		27	129
Spain	ESP			4	4	5	5	4		4		18	44
France	FRA		16	6	6		9	6	2	11		39	95
U.K.	GBR	8	13	5	10	27		19	3	11	4	144	244
India	IND						21		55			14	90
Ireland	IRL						69					17	86
Italy	ITA		2		5	8				3		16	34
Japan	JPN		5	15	52	38	36		23	19		39	227
Korea	KOR						17		18			12	47
Luxembourg	LUX		10	1	1	5	6			2		8	33
Mexico	MEX											42	42
Netherlands	NLD	1	14	21	18	14	13	3	5			46	135
Norway	NOR			1	2	1	5			1		14	24
New Zealand	NZL	27										8	35
Sweden	SWE		1	4	3	5	12	2				17	44
Taiwan	TWN						11		28			9	48
United States	USA	13	36	71	40	52	113	83	1	74			483
South Africa	ZAF	2	10	4	5	22	40		6			15	104
	Total	58	128	177	150	210	436	139	149	145	86	1054	2732

Listing Requirements On Global Exchanges

- Listing requirements on the primary exchanges in the U.S. and U.K. are among the strictest in the world
- What about the listing requirements in other markets?

Listing Requirements On Global Exchanges

- Many exchanges allow foreign firms to list on a secondary market or as an “exempt foreign listing”
- Many exchanges operate under the “mutual recognition” policy with respect to financial reporting:
 - The host country exchange simply requires cross-listed firms to deliver their financial reports from the home country
 - Host country investors receive home country financial statements

Research Question

- I examine the change in analyst coverage around a cross-listing to shed light on the bonding hypothesis
- Do legal institutions and/or market forces allow firms to “bond”?

The Bonding Hypothesis

- Firms from countries with weak institutions find it difficult to raise external capital
- To overcome this problem firms can cross-list in a host country with institutional features that deter managers from expropriation (e.g., the U.S.)
- Coffee (1999, 2002) and Stulz (1999) describe several institutional mechanisms that could deter expropriation:
 - Disclosure requirements
 - Legal system
 - Regulation
 - Market forces



Legal Institutions

Motivation

- Most papers which test the bonding hypothesis focus on legal institutions
- Some research questions the ability of legal institutions to bond cross-listed firms (Siegel, 2005; Licht, 2003)
 - U.S. exchanges waive governance provisions for cross-listed firms
 - Firms cross-listed in the U.S. are exempt from filing proxy statements, insider trading restrictions and Reg FD
 - Mutual recognition of accounting standards
- Market forces may fill this void and work in conjunction with legal institutions

Market Forces

- Fundamental characteristics of a country's financial structure:
 - Principal means of dispensing capital: equity vs. debt
 - Ownership structure
- These forces can affect reporting incentives in the absence of specific rules and regulations
 - In countries with strong equity markets and/or diffuse ownership, information is typically disseminated through public disclosure (Chang et al., 2000; Leuz, 2006)
- Anecdotal evidence: U.S. cross-listed firms are not subject to Reg FD, but some firms still comply (e.g., Nokia, TV Azteca)

Institutional Variables

- Legal Institutions
 - Disclosure: CIFAR, DISCLOSE
 - Legal environment: ANTIDIR, JUDEFF, COMLAW
 - Regulation: PUBLIC
- Market Forces
 - Size of the equity market: MKTCAP, SYSTEM
 - Ownership concentration: CONC
- Variables are used to capture the relative strength of the institutions in the home and host markets
 - Difference variables: “DIFF”
 - Indicator variables: “IND”

Research Design

- Analyst coverage is a measure of a firm's information environment (Lang, Lins and Miller, 2003)
- An improved information environment can
 - Lower the cost of monitoring the firm
 - Limit the expropriation of cash flows
- Main variable of interest is DCOV: change in coverage six months before to six months after the listing

Research Design

- Associate changes in analyst coverage with measures of legal institutions and market forces.
- H1: Firms listing in host markets where legal institutions (i.e., disclosure requirements and regulatory and legal pressures) are stronger than those in home markets will experience a larger increase in analyst coverage than other firms
- H2: Firms listing in host countries where market forces are stronger than those in home countries will experience a larger increase in analyst coverage than other firms

Caveats

- Firms cross list for other reasons
 - Reduce barriers to investment and increase investor base
 - Issue equity
 - Access expertise of foreign analysts
 - See Pagano, Roell and Zechner (2002)
- These and other motivations can affect analyst coverage
- Market forces are determined by legal institutions

Table 2, Panel B - Summary Statistics for DCOV by Host Country

Country	N	Mean		Median	StDev	Min	Max
AUS	18	1.1667		0	4.4391	-8	11
BEL	18	1.6944		1	5.4426	-8	12
CAN	12	1.2083		0.25	3.2854	-2	8
CHE	52	0.8269		1	5.9835	-31	12
DEU	113	-0.0265		0	3.2506	-11.5	11
FRA	45	1.5333	***	1	3.4219	-5	11
GBR	135	1.7556	***	1	3.5037	-7	11
JPN	81	1.5741	***	2	3.4992	-5	12
LUX	65	1.2308	***	1	2.5496	-5.5	10
NLD	59	1.4661	**	1	3.7195	-5	11
NZL	33	0.8636	**	1	2.0588	-4	6
SGP	16	1.7500	**	2	2.6141	-2	7
SWE	10	4.2000	**	2.5	5.8080	-4	13
USA	309	1.3981	***	1	4.1726	-15	26
Total	1,000	1.2985	***	1	3.8996	-31	26

Research Design – Regression Analysis

- Little theory exists to help in building a model of analyst coverage
- Prior research relies on the costs and benefits analysts face in covering firms
 - O'Brien and Bhushan, 1990; Barth et al., 2001

$$DCOV_i = \beta_0 + \beta_1 LOGCOV_i + \beta_2 LOGRET_i + \beta_3 DLOGTAD_i + \beta_4 MB_i + \beta_5 ISSUE_i + \beta_6 INST_i + \varepsilon_i$$

$$DCOV_i = \beta_0 + \beta_1 LOGCOV_i + \beta_2 LOGRET_i + \beta_3 DLOGTAD_i + \beta_4 MB_i + \beta_5 ISSUE_i + \beta_6 INST_i + \varepsilon_i$$

Table 5, Panel B - Regression Analysis, Indicator Institutional Variables

	1	2	3	4	5	6
	IND_ CIFAR	IND_ DISCLOSE	IND_ ANTIDIR	IND_ JUDEFF	IND_ COMLAW	IND_ PUBLIC
LOGCOV	-0.951 0.000	-0.947 0.000	-0.995 0.000	-0.879 0.000	-0.944 0.000	-0.988 0.000
LOGRET	0.217 0.656	0.189 0.698	0.216 0.654	0.231 0.623	0.009 0.985	0.198 0.686
DLOGTAD	0.788 0.191	0.792 0.170	0.812 0.160	0.770 0.185	0.747 0.183	0.787 0.173
MB	0.018 0.210	0.018 0.205	0.018 0.220	0.018 0.201	0.016 0.269	0.018 0.203
ISSUE	1.035 0.052	1.051 0.054	1.039 0.052	0.902 0.083	0.888 0.047	1.079 0.045
Institutional Variable	0.525 0.366	0.327 0.693	0.437 0.422	0.876 0.041	0.734 0.231	-0.419 0.496
Intercept	4.940 0.000	4.658 0.003	4.936 0.000	4.658 0.000	4.823 0.000	5.222 0.000
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Host-Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.077	0.068	0.069	0.076	0.074	0.068
#obs	532	536	536	536	574	536

$$DCOV_i = \beta_0 + \beta_1 LOGCOV_i + \beta_2 LOGRET_i + \beta_3 DLOGTAD_i + \beta_4 MB_i + \beta_5 ISSUE_i + \beta_6 INST_i + \varepsilon_i$$

	7	8	9
	IND_ MKTCAP	IND_ SYSTEM	IND_ CONC
LOGCOV	-0.890 0.000	-1.000 0.000	-0.909 0.000
LOGRET	0.221 0.637	0.305 0.525	0.185 0.699
DLOGTAD	0.870 0.145	1.058 0.121	0.797 0.176
MB	0.018 0.209	0.019 0.210	0.018 0.221
ISSUE	0.920 0.082	0.549 0.330	1.045 0.047
Institutional Variable	1.191 0.028	1.363 0.010	0.658 0.175
Intercept	4.725 0.000	4.610 0.001	4.513 0.001
Year Fixed Effects	Yes	Yes	Yes
Host-Country Fixed Effects	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes
R2	0.079	0.080	0.071
#obs	536	462	536

Identifying Legal Institutions and Market Forces

- Market forces and legal institutions are interrelated
- Isolate firms listing in the U.S. and U.K.
 - Legal institutions are stronger in the U.S.
 - Market forces are strong in both markets
- If legal institutions are driving increase in coverage U.S.-listed firms should experience a larger increase in analyst coverage

$$DCOV_i = \beta_0 + \beta_1 LOGCOV_i + \beta_2 LOGRET_i + \beta_3 DLOGTAD_i + \beta_4 MB_i + \beta_5 ISSUE_i + \beta_6 US_LISTED_i + \varepsilon_i$$

Analysis of Firms Listed in the U.S. and U.K.

LOGCOV	-1.090 0.000
LOGRET	-0.019 0.973
DLOGTAD	0.229 0.740
MB	0.012 0.333
ISSUE	0.930 0.064
U.S.-listed firm	-0.256 0.678
Intercept	3.622 0.000
Year Fixed Effects	Yes
Industry Fixed Effects	Yes
R2	0.090
#obs	296

Conclusions

- A cross-listing in any one of several host markets increases analyst coverage suggesting that the event changes the information environment
- The increase in analyst coverage is highest for firms listing in host countries with strong market forces
- Market forces and legal institutions play a role in bonding managers at cross-listed firms

Clustering in Home-Host Country Pairs

- The figure reveals several interesting clusters. For example:
 - Many firms from Australia cross-list in New Zealand and vice-versa
 - Many firms from Ireland list in the U.K.
 - Most firms that are cross-listed in Luxembourg are from India, Taiwan, Japan, and S. Korea
- Strong regional preferences apparent in some host markets
- Exchanges specialize in attracting specific types of firms

Analyst Coverage and U.S. Cross-listings

- Lang, Lins and Miller (2003) show that a U.S. cross-listing improves the information environment
- They attribute the increase to the disclosures required of cross-listed firms
- The improved information environment could also be a result of enhanced legal pressures and regulation (Leuz, 2003)
 - The U.S., as a host exchange, has strong institutions on all dimensions. Those institutions which improve the information environment are unclear.

Summary of Findings

- Analyst coverage increases across a wide sample of host countries
- The increase in coverage is concentrated in firms that list in host countries where the legal environment or market forces are stronger than those in the home country

Research Design - Data

- Financial data gathered from Datastream (Worldscope); analyst coverage from IBES
- The change in analyst coverage (DCOV) is the outcome variable of interest:
 - Measured as the difference in analyst coverage six months before and after the listing
 - Adjusted for the median increase in coverage across all firms in the home country

Table 2, Panel A - Summary Statistics for DCOV by Home Country

Country	N	Mean		Median	StDev	Min	Max
AUS	57	1.0702	***	1	3.2929	-6	11
CAN	129	2.1357	***	2	3.4208	-8	11
CHE	21	1.1905		1	4.0202	-6	10
DEU	50	1.4800		1.5	6.9700	-31	12
ESP	11	2.1818	*	1.5	3.2808	-1	8
FRA	45	3.4111	***	3	5.6922	-6	26
GBR	96	0.7708	*	1	3.8784	-15	13
HKG	10	2.6500	***	2.5	2.5501	-2	6.5
IND	51	1.9216	***	2	3.3337	-6	13
IRL	15	-0.4333		0	1.3478	-3	1
ITA	12	0.6667		3.25	6.2498	-11.5	10
JPN	82	0.3049		1	2.8618	-6	9
NLD	36	0.4861		0	4.3711	-9	14
NOR	13	2.1538	**	1.5	3.0440	-3	8
SWE	19	2.1842	**	2	3.4287	-4	11
TWN	31	1.2581	***	1	2.2835	-3	8
USA	203	0.7709	***	1	3.0512	-6	12
ZAF	16	0.6875	*	1	1.3525	-2	4
Total	1,000	1.2985	***	1	3.8996	-31	26

Table 3 - Summary Statistics for DCOV by Institutional Variables

Variable		N	Mean		Median	StDev	Min	Max
IND_CIFAR	0	453	0.9724	**	1	3.7777	-15	26
	1	470	1.6202		1	4.1487	-31	17
IND_DISCLOSE	0	464	1.1347		1	3.5314	-11.5	13
	1	463	1.4471		1	4.3803	-31	26
IND_ANTIDIR	0	669	1.2280		1	3.5260	-15	13
	1	258	1.4535		1	4.9693	-31	26
IND_JUDEFF	0	575	0.9270	***	1	3.4948	-15	14
	1	352	1.8849		1.5	4.6071	-31	26
IND_COMLAW	0	814	1.1953	*	1	3.6987	-31	13
	1	186	1.7500		2	4.6633	-8	26
IND_PUBLIC	0	414	1.2705		1	3.7677	-11.5	13
	1	513	1.3070		1	4.1453	-31	26
IND_MKTCAP	0	414	0.8237	***	1	3.5320	-15	13
	1	513	1.6676		1	4.2724	-31	26
IND_SYSTEM	0	316	0.7136	***	1	3.5779	-15	13
	1	477	1.6635		1	3.9400	-11.5	26
IND_CONC	0	419	0.9415	**	1	3.6564	-15	13
	1	508	1.5787		1	4.2084	-31	26

Table 4, Panel A - Summary Statistics, Firm-level Variables

Variable	N	Mean	Median	StDev	Min	Max
DCOV	574	1.0061	1.0000	3.6089	-15.0000	13.0000
COV	574	13.7822	12.5000	9.8958	1.0000	43.0000
LOGCOV	574	2.4190	2.6020	0.8081	0.6931	3.7842
RET	574	0.2394	0.1212	0.7507	-0.9621	7.8261
LOGRET	574	0.0944	0.1144	0.4964	-3.2719	2.1777
TAD	574	19,693.75	2,081.11	63,050.95	5.84	608,512.51
LOGTAD	574	14.5492	14.5484	2.2275	8.6720	20.2265
DLOGTAD	574	0.2315	0.1408	0.3761	-0.7621	3.2124
MB	574	3.8640	2.3220	5.9524	-7.3281	52.8708
ISSUE	574	0.1864	0.0000	0.3898	0.0000	1.0000
FOR_SALES	441	40.6554	37.6100	31.3198	0.0000	100.0000
DISTANCE	574	5,246.35	5,894.39	3,938.80	173.01	16,973.27
LOGDISTANCE	574	8.0717	8.6818	1.1664	5.1534	9.7394