Internet Appendix for "Regulatory Arbitrage and International Bank Flows"

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Our main dependent variable used in this paper is the international bilateral bank flow from 26 primarily OECD source countries to 120 recipient countries.[1],[2] Bilateral bank flow consists of bank loans and portfolio investments aggregated from banks located in a source country to all sectors of the economy in a recipient country, and is a panel data set that consists of bilateral country-level data.

Our bank flow panel data are constructed from the banking sector bilateral stock data published in the International Banking Statistics by the Bank for International Settlements (BIS). The BIS Consolidated/Nationality Banking Statistics publish aggregate foreign financial claims reported by domestic bank head offices, including the exposures of their foreign affiliates (i.e., branches and subsidiaries), and are collected on a worldwide consolidated basis with interoffice positions being netted out (BIS, 2003, p.55). These claims consist of financial assets such as loans, debt securities,

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[1] The 26 source countries/regions are: Australia, Austria, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Mexico, the Netherlands, Norway, Panama, Portugal, Spain, Sweden, Switzerland, Taiwan, Turkey, the U.K., and the U.S.

[2] The 120 recipient countries/regions are: Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Democratic Republic of Congo, Republic of Congo, Costa Rica, Croatia, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Georgia, Germany, Ghana, Greece, Guatemala, Haiti, Honduras, Hong Kong, Hungary, India, Indonesia, Iran, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Latvia, Lesotho, Lithuania, Macedonia, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mexico, Moldova, Mongolia, Morocco, Mozambique, Namibia, Nepal, the Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Senegal, Sierra Leone, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Togo, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, the U.K., the U.S., Uruguay, Venezuela, Vietnam, Zambia, and Zimbabwe.

properties, and equities, including equity participation in subsidiaries (BIS, 2003). The data have been published in Table 9B of the BIS Quarterly Review on a quarterly basis since December 1983 under the title "The consolidated foreign claims of reporting banks." The data are in matrix form with different source country/recipient country combinations. The most recent cross-sectional data can be downloaded from http://www.bis.org/statistics/pcsv/panx9b.csv and the full historical data can be downloaded from the BIS website at www.bis.org/statistics/hcsv/hanx9b.csv.

This database provides comprehensive data on banks' financial claims on residents outside the country in which these banks are headquartered. It is important to stress that a bank's home country is determined by the reporting bank's nationality and not its geographic location. So, for example, a loan issued by a U.S. bank located in London to a British bank operating in London is recorded in the database as a foreign loan, where the source country is the U.S. and the recipient country is the U.K. However, a loan issued by the same U.S. bank located in London to another U.S. bank located in New York is regarded as a domestic loan issued by the U.S. bank and is therefore not recorded in this database (for details, see Wooldridge (2002)).

For instance, if there was a large U.S. flow to their branches located in the U.K. but much of that flow was eventually headed towards emerging economies, the BIS data can actually capture the fact that these are indeed U.S. bank inflows, rather than U.K. bank inflows, to emerging economies.

As there is no flow measure in the BIS data, we construct a bank flow measure by calculating the annual difference of log total foreign claims for each bilateral source-recipient combination. Specifically, our bank flow is defined as 100 times the log-difference of the ratio of total foreign claims (*FCsr*) from source country *s* to recipient country *r*, that is, $100*\Delta ln(FCsr)$. We construct the annual bank flow variable by using the stock data (*FCsr*) as of December of each year in our sample period (1996 to 2007) to match the annual frequency of the other explanatory variables.

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Table IA.I
Correlation Matrix of Differenced Variables

This table examines the correlations among the changes in regulation and institution quality. A variable change is its difference between 2001 and 2004 and that between 2004 and 2007, that is, Δx_t, t=2004 and 2007. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Δ Overall activity restrictions	1												
2	Δ Restriction on banks owning nonfin firms	0.11**	1											
3	Δ Capital regulatory index	0.05	0.09	1										
4	Δ Strength of external audit	-0.09	0.01	0.21***	1									
5	Δ Fin statement transparency	-0.06	0.11**	0.09	0.23***	1								
6	Δ Independence of supervisory authority	-0.01	0.00	-0.09	-0.07	0.09	1							
7	Δ Official supervisory power	0.01	0.12**	0.03	0.22***	0.20***	0	1						
8	Δ Loan classification leniency	-0.11	-0.08	-0.01	-0.03	-0.01	0.08	-0.16***	1					
9	Δ Creditor rights	0.01	-0.12*	0.14**	-0.02	0.06	-0.02	-0.01	-0.1	1				
10	Δ Info share	-0.19**	-0.05	-0.01	0.12**	0.24***	0.02	-0.01	0.25***	-0.06	1			
11	Δ Property rights	-0.20**	-0.13**	-0.01	0.03	-0.05	0.02	0.00	0.24***	0.00	0.26***	1		
12	Δ Log income	-0.03	-0.03	0.02	0.02	0.07	0.06	0.04	0.05	-0.04	0.05	0.06	1	
13	Δ Log population	-0.01	0.04	-0.03	0.01	0.06	-0.07	0.01	0.04	-0.05	0.04	0.00	0.12**	1

Table IA.II

Regulatory Arbitrage and Bank Flows: Various Clustering Effects

This table presents robustness tests for equation 7 in Table IV of the main text under different two-way clustering specifications for standard errors of coefficients indicated in the first row (Petersen (2009)). The dependent variable is bank flows, which is defined as 100 times the log-difference of total foreign claims (*FCsr*) from source country *s* to recipient country *r*, that is, 100*Δ*ln(FCsr)*. *p*-values are computed using heteroskedasticity-robust standard errors clustered under different specifications and are presented in brackets. The country-level banking regulatory variables are time varying and are based on three major surveys spanning almost a decade by the World Bank (Barth, Caprio, and Levine (2008)). The values of regulatory variables for the period 1996 to 1999 are taken from the first survey recorded in 1998/1999, for the period 2000 to 2003 are taken from the second survey that assesses the state of regulation as of the end of 2002, and for the period 2004 to 2005 are taken from the third survey that characterizes the environment as of the end of 2005. Detailed variable definitions can be found in Table I. Time fixed effects, as well as source and recipient country-specific effects are included in the regressions but not reported. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

	1	2	3
Clustering by two dimensions	By recipient country and time	By source country and time	By recipient-source country pair and time
Overall activity restrictions (source)	0.36	0.36	0.36
	[0.009]***	[0.017]**	[0.016]**
Overall activity restrictions (recipient)	-0.33	-0.33	-0.33
	[0.018]**	[0.015]**	[0.029]**
Restriction on banks owning nonfin firms (source)	1.52	1.52	1.52
	[0.029]**	[0.023]**	[0.028]**
Restriction on banks owning nonfin firms (recipient)	-1.42	-1.42	-1.42
	[0.144]	[0.112]	[0.116]
Capital regulatory index (source)	0.23	0.23	0.23
	[0.123]	[0.128]	[0.124]
Capital regulatory index (recipient)	-0.34	-0.34	-0.34
	[0.028]**	[0.025]**	[0.025]**
Strength of external audit (source)	0.70	0.70	0.70
	[0.250]	[0.136]	[0.254]
Strength of external audit (recipient)	-0.65	-0.65	-0.65
	[0.033]**	[0.032]**	[0.030]**
Fin statement transparency (source)	1.85	1.85	1.85
	[0.027]**	[0.030]**	[0.027]**
Fin statement transparency (recipient)	-0.56	-0.56	-0.56
	[0.059]*	[0.047]**	[0.055]*
Independence of supervisory authority (source)	1.05	1.05	1.05
	[0.461]	[0.462]	[0.423]
Independence of supervisory authority (recipient)	-0.83	-0.83	-0.83
	[0.031]**	[0.022]**	[0.024]**
Official supervisory power (source)	0.66	0.66	0.66
	[0.078]*	[0.072]*	[0.074]*
Official supervisory power (recipient)	-0.52	-0.52	-0.52
	[0.023]**	[0.023]**	[0.024]**
Loan classification leniency (source)	-0.27	-0.27	-0.27
	[0.020]**	[0.011]**	[0.015]**
Loan classification leniency (recipient)	0.41	0.41	0.41

	[0.036]**	[0.033]**	[0.033]**
Creditor rights (source)	-2.40	-2.40	-2.40
	[0.018]**	[0.012]**	[0.019]**
Creditor rights (recipient)	3.65	3.65	3.65
	[0.026]**	[0.032]**	[0.037]**
Info sharing (source)	-0.68	-0.68	-0.68
	[0.035]**	[0.042]**	[0.034]**
Info sharing (recipient)	1.17	1.17	1.17
	[0.084]*	[0.083]*	[0.084]*
No. of days to enforce contracts (recipient)	0.10	0.10	0.10
	[0.036]**	[0.082]*	[0.038]**
No. of days to enforce contracts (source)	-0.15	-0.15	-0.15
	[0.027]**	[0.023]**	[0.025]**
Top 5 bank concentration (recipient)	-3.64	-3.64	-3.64
	[0.069]*	[0.051]*	[0.054]*
Government bank ownership (recipient)	-1.67	-1.67	-1.67
	[0.030]**	[0.024]**	[0.023]**
Property rights (source)	-2.44	-2.44	-2.44
	[0.034]**	[0.036]**	[0.033]**
Property rights (recipient)	1.86	1.86	1.86
	[0.029]**	[0.025]**	[0.026]**
Log income (source)	-1.16	-1.16	-1.16
	[0.364]	[0.365]	[0.388]
Log income (recipient)	2.11	2.11	2.11
	[0.112]	[0.081]*	[0.101]
Log population (source)	1.60	1.60	1.60
	[0.120]	[0.288]	[0.135]
Log population (recipient)	2.48	2.48	2.48
	[0.051]*	[0.033]**	[0.035]**
Common language	5.40	5.40	5.40
	[0.007]***	[0.013]**	[0.006]***
Log distance	-1.38	-1.38	-1.38
	[0.277]	[0.128]	[0.218]
Fin liberalization (source)	0.37	0.37	0.37
	[0.193]	[0.341]	[0.197]
Fin liberalization (recipient)	0.52	0.52	0.52
	[0.012]**	[0.007]***	[0.009]***
Growth opportunities (source)	-1.22	-1.22	-1.22
	[0.029]**	[0.022]**	[0.030]**
Growth opportunities (recipient)	1.67	1.67	1.67
	[0.030]**	[0.028]**	[0.029]**
Source country fixed effects	yes	yes	yes
Recipient country fixed effects	yes	yes	yes
Time fixed effects	yes	yes	yes
Observations	7,923	7,923	7,923
No. of source countries	23	23	23
No. of recipient countries	70	70	70

Adj. R^2	0.19	0.19	0.19

Internet Appendix Table IA.III
Regulatory Gaps and International Bank Flows

As a robustness test, we calculate the regulatory gaps between each source and recipient country, and use these as alternative explanatory variables. Specifically, we estimate the following model:

$$Bank\ Flow_{s,r,t} = \alpha_0 + \alpha\ Reg\ Gap_{s,r,t} + \beta\, Institutional\ Gap_{s,r,t} + \gamma \Delta X_{s,r,t} + \theta_1\, ln\left(Distance_{s,r}\right) + \theta_2 Common\ Language_{s,r} + \eta_s + \varphi_r + \mu_t + \varepsilon_{s,r,t},$$

where $\Delta X_{s,r,t} = X_{s,t} - X_{r,t}$,

$Reg\ Gap_{s,r,t} = Regulation_{s,t} - Regulation_{r,t}$ (3),

$Institutional\ Gap_{s,r,t} = Institutional\ Quality_{s,t} - Institutional\ Quality_{r,t}$,

s and *r* indicate the source and recipient country, respectively, and *t* indicates time (year).

The dependent variable is bank flows, which is defined as 100 times the log-difference of total foreign claims (*FCsr*) from source country *s* to recipient country *r*, that is, 100*Δ*ln(FCsr)*. *p*-values are computed using heteroskedasticity-robust standard errors clustered for recipient countries and are presented in brackets. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

	1	2	3	4	5	6
Overall activity restrictions (gap)	0.38				0.50	0.57
	[0.033]**				[0.023]**	[0.018]**
Restriction on banks owning nonfin firms (gap)	0.48				0.50	0.36
	[0.017]**				[0.011]**	[0.014]**
Capital regulatory index (gap)		0.89			0.75	0.85
		[0.067]*			[0.032]**	[0.035]**
Strength of external audit (gap)			0.46		0.35	0.36
			[0.017]**		[0.066]*	[0.077]*
Fin statement transparency (gap)			0.81		0.78	0.92
			[0.031]**		[0.033]**	[0.028]**
Independence of supervisory authority - overall (gap)				0.92	0.58	0.63
				[0.033]**	[0.047]**	[0.032]**
Official supervisory power (gap)				0.29	0.30	0.24
				[0.033]**	[0.034]**	[0.044]**
Loan classification leniency (gap)					-0.51	-0.67
					[0.029]**	[0.025]**
Creditor rights (gap)	-4.53	-4.46	-4.37	-4.28	-4.41	-5.36
	[0.046]**	[0.012]**	[0.006]***	[0.004]***	[0.004]***	[0.003]***
Info share (gap)	-1.14	-1.12	-1.14	-1.11	-1.19	-1.48
	[0.024]**	[0.065]*	[0.026]**	[0.027]**	[0.023]**	[0.040]**
Property rights (gap)	-1.67	-1.83	-1.93	-2.11	-1.60	-1.74
	[0.064]*	[0.062]*	[0.053]*	[0.028]**	[0.039]**	[0.043]**
Fin liberalization (gap)						0.49
						[0.189]
Growth opportunities (gap)						-1.46
						[0.038]**
Sample period			1996-2007			1996-2005
Other control variables	yes	yes	yes	yes	yes	yes
Source country fixed effects	yes	yes	yes	yes	yes	yes
Recipient country fixed effects	yes	yes	yes	yes	yes	yes
Time fixed effects	yes	yes	yes	yes	yes	yes
Observations	13,738	13,790	13,467	13,601	12,936	7,923
No. of source countries	26	26	26	26	26	23

No. of recipient countries	111	111	108	109	102	70
Adj. R^2	0.24	0.23	0.21	0.22	0.24	0.22

Table IA.IV
Change Regressions

We examine the effects of regulatory changes on international bank flow changes. Focusing on changes allows us to account for unobservable time-invariant country-specific characteristics that might influence both the level of bank regulation and international bank flows. This approach also helps alleviate the endogeneity concern (Lin et al. (2011)).

The first-differencing estimation relates to the time periods corresponding to the three surveys. Specifically, we examine how changes in the regulatory gap (between source and recipient pairs) influence changes in bank flows. Instead of using the full 10 years of data, we focus on the three survey years (1999, 2002, 2005) to measure regulatory changes. To capture the potential lagged effects of regulatory changes, we use bank flow data in 2001, 2004, and 2007 to measure the changes in bank flows. The sample thus contains observations of two time-series changes. Countries without regulatory changes are dropped from the estimation and the sample size drops to about 1,730. Specifically, the estimation can be expressed as follows:

$$\Delta\left(Bank\ Flow_{s,r,t}\right) = \alpha_0 + \alpha\,\Delta Reg\ Gap_{s,r,t} + \beta\,\Delta Institutional\ Gap_{s,r,t} + \gamma_1 \Delta Income\ Gap_{s,r,t} + \gamma_2 \Delta Population\ Gap_{s,r,t} + \mu_t + \varepsilon_{s,r,t}, \quad \text{for } t = 2 \text{ and } 3.$$

The regressions examine the effects of changes in regulatory and institutional gaps on changes in bank flows. The dependent variable is the difference in bank flows between 2001 and 2004 and that between 2004 and 2007, that is, Δy_t, t=2007 and 2004, where y is bank flows defined as 100 times the log-difference of the ratio of total foreign claims (*FCsr*) from source country *s* to recipient country *r*, that is, 100*$\Delta ln(FCsr)$. All explanatory variables are lagged two-year changes in regulation gaps between source and recipient countries (i.e., difference in regulatory gaps between 1999 and 2002 and between 2002 and 2005). *p*-values are computed using heteroskedasticity-robust standard errors clustered for recipient countries and are presented in brackets. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

	1	2	3	4	5	6
Δ Overall activity restrictions (gap)	0.46				0.43	0.51
	[0.031]**				[0.035]**	[0.031]**
Δ Restriction on banks owning nonfin firms (gap)	0.75				0.62	0.48
	[0.045]**				[0.041]**	[0.053]*
Δ Capital regulatory index (gap)		3.68			3.53	3.24
		[0.015]**			[0.018]**	[0.016]**
Δ Strength of external audit (gap)			0.98		0.81	0.59
			[0.034]**		[0.039]**	[0.047]**
Δ Fin statement transparency (gap)			1.12		1.10	1.15
			[0.029]**		[0.037]**	[0.052]*
Δ Independence of supervisory authority - overall (gap)				2.78	2.81	3.00
				[0.060]*	[0.062]*	[0.059]*
Δ Official supervisory power (gap)				0.15	0.34	0.46
				[0.022]**	[0.016]**	[0.015]**
Δ Loan classification leniency (gap)					-0.36	-0.47
					[0.028]**	[0.016]**
Δ Creditor rights (gap)	-3.08	-3.14	-3.02	-3.27	-2.81	-3.52
	[0.013]**	[0.019]**	[0.075]*	[0.020]**	[0.026]**	[0.020]**
Δ Info share (gap)	-1.82	-2.04	-1.51	-2.42	-1.63	-1.49
	[0.034]**	[0.026]**	[0.040]**	[0.018]**	[0.039]**	[0.052]*
Δ Property rights (gap)	-2.09	-2.06	-2.23	-2.06	-2.11	-1.53
	[0.130]	[0.039]**	[0.053]*	[0.044]**	[0.038]**	[0.047]**
Δ Log income (gap)	-2.73	-2.73	-2.82	-2.60	-2.73	-3.14
	[0.038]**	[0.046]**	[0.201]	[0.083]*	[0.075]*	[0.063]*
Δ Log population (gap)	3.65	3.28	4.50	3.74	4.41	5.31
	[0.143]	[0.230]	[0.111]	[0.064]*	[0.062]*	[0.036]**
Δ Fin liberalization (gap)						0.15
						[0.347]
Δ Growth opportunities (gap)						-0.34
						[0.039]**

Observations	1,731	1,701	1,673	1,673	1,639	1,081
Adj. R^2	0.19	0.16	0.16	0.17	0.14	0.18

Table IA.V
Current Account Analysis

Here we follow the traditional intertemporal approach of the current account (see, for example, a survey by Obstfeld and Rogoff (1995) on this research). This approach has been developed to address the Feldstein and Horioka (1980) saving-investment paradox of home bias in real investment (Sachs (1981)), and is related to the current "global savings glut" debate. We adopt a parsimonious version of this model documented in Tesar (1991) and Kraay and Ventura (2002).

The traditional regression model is given as follows:

$$CA_{it} = \alpha_0 + \alpha\, S_{it} + u_{it},$$

where CA_{it} and S_{it} are the current account/GNP and gross saving/GNP of country i respectively, α_0 and α are parameters, and u_{it} is the residual. The parameter α measures the response of the current account to changes in saving, which in turn implies the amount of capital outflow from the country. We augment this simple model of the determinants of the current account by a full set of key regulatory variables and other controls from our bank flow model as follows:

$$CA_{it} = \alpha_0 + \alpha\, S_{it} + \beta\, \text{Regulation}_{it} + \gamma\, \text{Control}_{it} + u_{it},$$

where Regulation_{it} and Control_{it} are a vector of regulatory variables and a vector of other control variables used in the previous bank flow analysis.

The dependent variable is the current account/GNP (in %), which is a proxy for aggregate capital outflows from the source countries in the sample. The country-level banking regulatory variables are time varying and are based on three major surveys spanning almost a decade by the World Bank. Detailed variable definitions can be found in Table I. Other control variables include log income (source) and log population (source). Time fixed effects and source country-specific effects are included in the regressions but not reported. *p*-values are computed using heteroskedasticity-robust standard errors clustered for source countries and are presented in brackets. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

	1	2	3	4	5	6	7
Saving/GNP (%) (source)	0.79	0.78	0.64	0.75	0.82	0.73	0.72
	[0.006]***	[0.003]***	[0.003]***	[0.005]***	[0.009]***	[0.005]***	[0.004]***
Overall activity restrictions (source)		0.30				0.49	0.58
		[0.016]**				[0.031]**	[0.026]**
Restriction on banks owning nonfin firms (source)		1.41				1.31	1.16
		[0.078]*				[0.014]**	[0.008]***
Capital regulatory index (source)			0.25			0.35	0.57
			[0.035]**			[0.126]	[0.072]*
Strength of external audit (source)				0.74		0.63	1.15
				[0.034]**		[0.243]	[0.121]
Fin statement transparency (source)				1.48		1.56	1.53
				[0.018]**		[0.023]**	[0.019]**
Independence of supervisory authority (source)					0.53	0.71	0.96
					[0.092]*	[0.605]	[0.454]
Official supervisory power (source)					0.96	0.91	0.81
					[0.160]	[0.057]*	[0.028]**
Loan classification leniency (source)						-0.50	-0.36
						[0.015]**	[0.016]**
Creditor rights (source)		-3.32	-2.83	-2.55	-2.50	-2.47	-2.44
		[0.025]**	[0.154]	[0.061]*	[0.137]	[0.032]**	[0.041]**
Info sharing (source)		-1.73	-2.30	-1.56	-1.32	-1.13	-1.44
		[0.026]**	[0.017]**	[0.019]**	[0.113]	[0.004]***	[0.017]**
No. of days to enforce contracts (source)						0.18	0.17
						[0.015]**	[0.023]**
Property rights (source)		-3.68	-4.90	-3.77	-3.98	-4.13	-4.51
		[0.065]*	[0.044]**	[0.072]*	[0.062]*	[0.037]**	[0.021]**
Fin liberalization (source)							0.51
							[0.161]
Growth opportunities (source)							-1.32

							[0.027]**
Sample period	1996-20007						1996-2005
Other control variables	yes	yes	yes	yes	yes	yes	yes
Source country fixed effects	yes	yes	yes	yes	yes	yes	yes
Observations	1,124	1,124	1,125	1,090	1,102	1,033	610
Adj. R^2	0.81	0.84	0.83	0.83	0.82	0.84	0.85
No. of source countries	104	104	104	101	102	96	67

Table IA.VI
Difference of Number of Foreign Subsidiaries in High Regulation versus Low Regulation Countries

This table tests the difference in the number of foreign subsidiaries in high regulation versus low regulation countries according to the size and profitability of the banks. Bank size is measured by total assets and profitability is measured by net income divided by total assets. Both are three-year averages. *, **, and *** represent statistical significance at the 10%, 5%, and 1% level, respectively.

For the matching estimation:
1) For each of the 26 source countries, we create a dummy variable related to each of the eight supervision and regulation measures used in our previous analysis. For each dummy variable, we assign a value of one to countries that have more stringent regulations relative to the sample median. We then construct the overall regulation index as the sum of these eight dummy variables. Thus, this overall measure ranges from 0 to 8, with a higher value indicating a higher level of bank regulation. We divide 26 source countries into high/low regulation groups according to the overall regulation index of each country being above or below the median level of the index.
2) We divide the 26 source countries into high/low regulation groups according to the overall regulation index of each country being above or below the median level of the index.
3) We divide all 301 banks from the 26 source countries into big/small banks according to their size and high/low profitable banks according to their profitability in comparison to the respective medians. This gives us a total of four cells.
4) For the four cells, we conduct four t-tests to see within each cell if banks located in highly regulated countries have more overseas subsidiaries than banks located in less regulated countries.

		1	2	3	4	5
Cell		High regulation countries	No. of obs	Low regulation countries	No. of obs	Difference = (1)-(3)
1	Bank size below median & low profitability	1.31	23	1.26	42	0.05
2	Bank size below median & high profitability	3.68	41	1.98	44	1.71*
3	Bank size above median & low profitability	8.74	36	6.13	49	2.61**
4	Bank size above median & high profitability	9.41	34	6.25	32	3.16**

Figure IA.1. Change in overall activity restrictions across countries (1999 vs. 2006).
The regulations of the following countries have not changed over 1999 to 2006: Brazil, Croatia, Japan, Jordan, Latvia, the Philippines, and the U.S.