

Membership has its Privileges

The Effect of Membership in International Organizations of FDI

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Relevance

- Debate: Do IOs help or hinder development?
- Our paper contributes to this debate.

The case of LeapFrog Investments

- *March 29, 2010*: International Finance Corporation (IFC) invests \$20 million.
 - Soros Economic Development Funds commits \$7 million.
 - Flagstone Reinsurance commits \$12 million.
 - KfW Entwicklungsbank commits \$26 million.
 - *May 6, 2010*: J.P. Morgan commits \$10 million.
 - TIAA-CREF commits \$7 million.
 - Proparco... Waterloo Foundation... ACE Group...
- IFC investment as a signaling device for other investors?

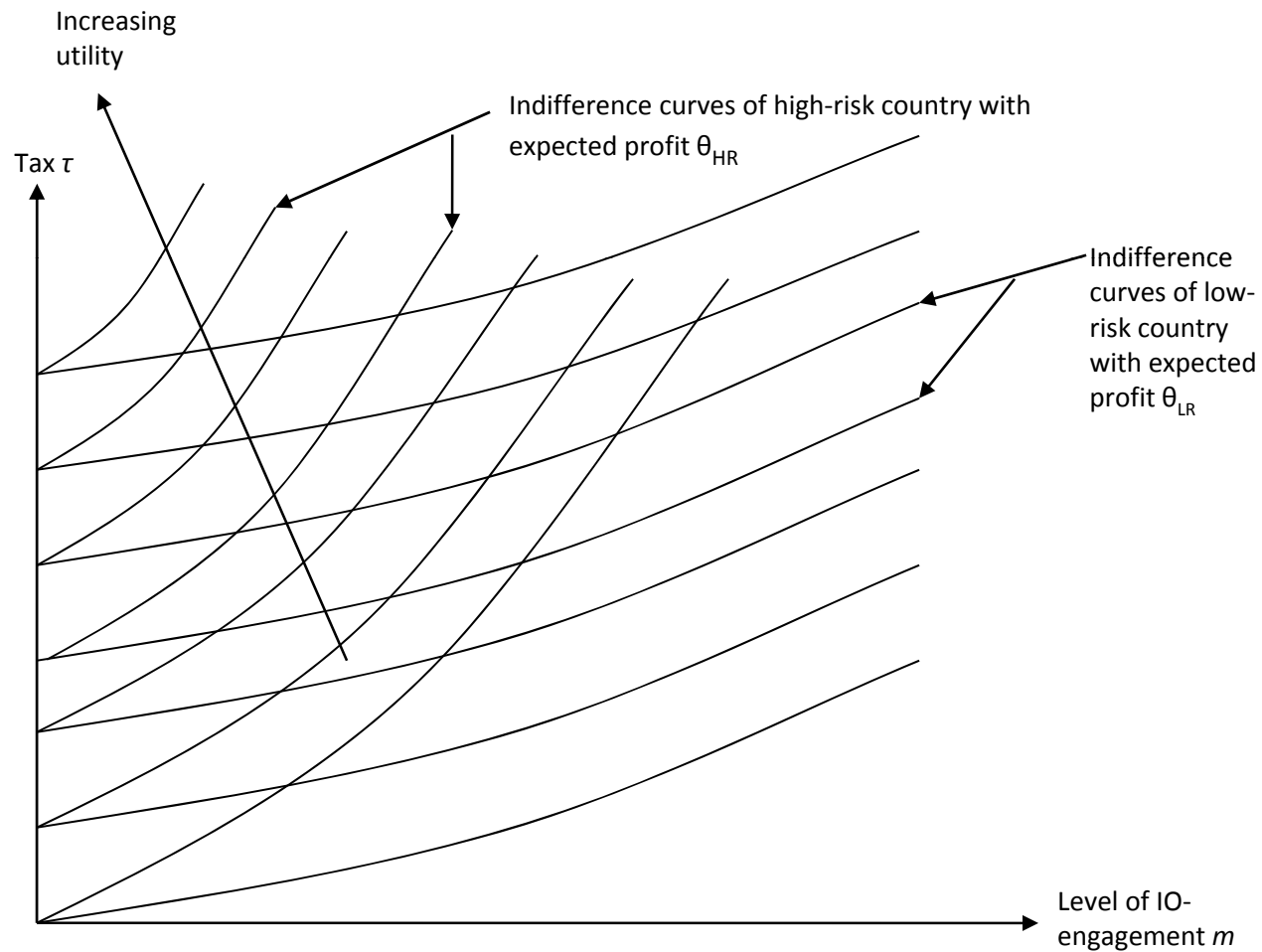
Question

- Can countries ...
 - ... use membership in certain international organizations ...
 - ... to signal their investment quality, and, thereby, ...
 - ... to attract foreign investment?

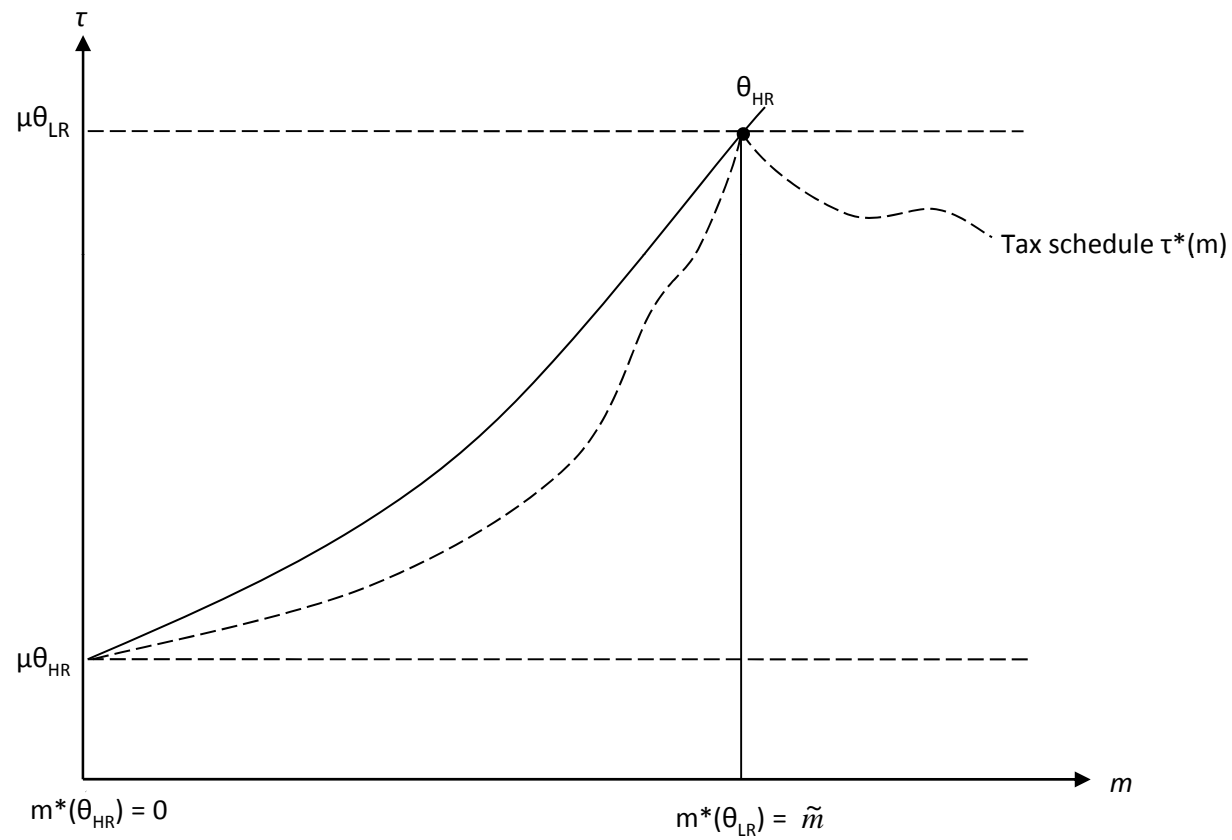
Signaling Model

- Country with low country risk where investment yields expected profit θ_{LR}
- Another country with high country risk where investment yields expected profit θ_{HR}
- $\theta_{LR} > \theta_{HR} > 0$
- Investor has to choose in which of the both countries to invest but cannot observe the countries' risk type.
- Countries can engage in IOs, investor can observe level of engagement m .
- Cost of IO engagement $c(\theta, m)$
- Reasonable assumption: $\partial c / \partial \theta < 0$
- Low risk country will choose m sufficiently higher than high risk country to credibly signal that it is indeed a low risk country ("Spence equilibrium").

Signaling Model – Set Up



Signaling Model – Spence Equilibrium



Making IO Membership Measurable

- IO selection criteria:
 - Organization promotes good investment conditions.
 - Organizations aims at securing goods which can be seen as fundamental pre-requisites for good investment conditions.
 - Monitoring
 - Deviating countries are sanctioned.
 - Organization is active/accessible globally.

Making IO Membership Measurable

- GATT/WTO
- Suborganizations of Worldbank:
 - International Finance Corporation (IFC)
 - International Center of the Settlement of Investment Disputes (ICSID)
- UN conventions:
 - International Covenant for Civil and Political Rights (ICCPR)
 - International Covenant for Economic, Social and Cultural Rights (ICESCR)
 - ICCPR Optional Protocol
 - Convention on the Recognition and Enforcement of Foreign Arbitral Awards (“New York Convention”)
 - Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT)
- *IO membership index by adding up over all organizations/conventions.*

Data and Method

- Unbalanced panel:
 - 133 countries
 - 1971 – 2005
 - Yearly observations
- Dependent variable: log of net inflows of foreign direct investment in current US\$
- Empirical set-up follows Tobin and Rose-Ackerman (*RIO* 2010)
- Standard errors clustered at country level
- Country and time-fixed effects included

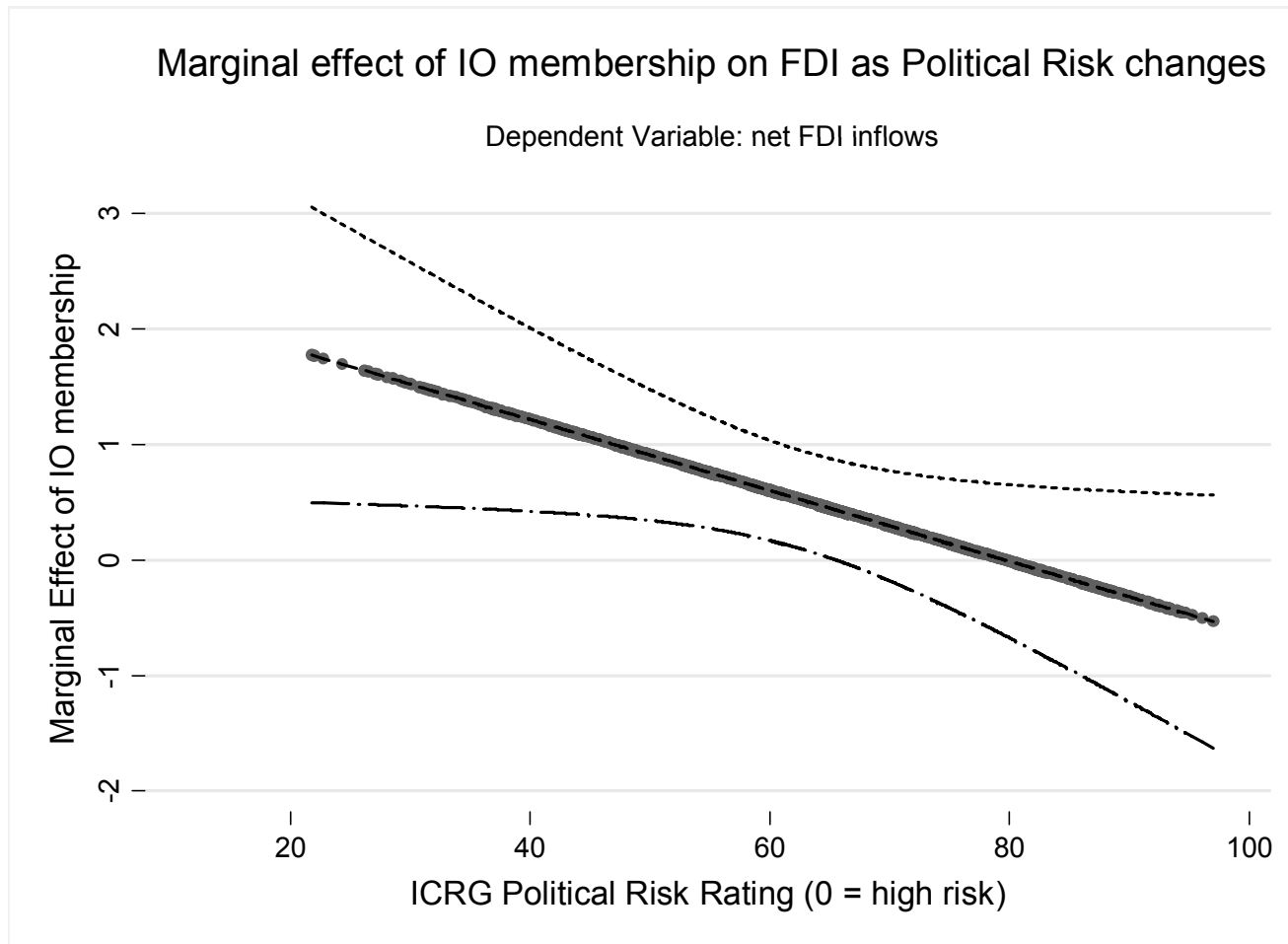
OLS-FE Results

	(1)	(2)	(4)
(Log) FDI net inflows, t-1	0.528*** (0.000)	0.525*** (0.000)	0.448*** (0.000)
(Log) Population, t-1	-0.347 (0.170)	-0.530* (0.080)	-0.910 (0.173)
(Log) GDP p.c., t-1	0.463*** (0.000)	0.396** (0.014)	0.121 (0.654)
GDP p.c. growth, t-1	0.469* (0.084)	0.573 (0.163)	0.917* (0.090)
Openness, t-1	0.005*** (0.000)	0.005*** (0.002)	0.003 (0.112)
IO membership, t-1		0.449** (0.030)	0.610** (0.022)
ICRG risk, t-1			0.009* (0.087)
Number of observations	3896	3233	1878
Number of countries	168	133	115
R-squared Adj.	0.50	0.51	0.50

IO Membership as Substitute for Good Domestic Institutions

- Do some countries profit more than others?

IO Membership as Substitute for Good Domestic Institutions – OLS-FE Results



Robustness

- Endogeneity of IO membership?
 - Granger causality tests
 - 2SLS
 - GMM
- Even after controlling for endogeneity, IO membership still exerts a significantly positive effect on FDI.
- Controlling for different institutional/political risk variables does not alter the results.
- All subcomponents of the IO membership index (except one) are positively significant.

Conclusion

- A country which is rated as “high risk country” may use membership in certain international organizations to signal to foreign investors that its investment quality is actually higher than directly observable information suggests.
- Such a country may attract additional FDI by joining certain international organizations.

Backup

Robustness 1: Endogeneity of IO Membership?

- Granger causality tests
 - Evidence that membership in international organizations Granger-causes FDI inflows
 - No evidence that FDI inflows Granger-cause membership
- 2SLS
 - Instruments:
 - Polity index (Rose, *JIE* 2004)
 - Number of embassies (Dreher, Gaston, Martins, *Measuring Globalization* 2008)
 - Contribution to UN peacekeeping operations (personnel relative to population size) (Dreher, Gaston, Martins, *Measuring Globalization* 2008)
- GMM

2SLS Results

	(2)	(3)
(Log) FDI net inflows, t-1	0.395*** (0.000)	0.393*** (0.000)
(Log) Population, t-1	-2.452*** (0.001)	-2.485*** (0.001)
(Log) GDP p.c., t-1	0.104 (0.636)	0.055 (0.806)
GDP p.c. growth, t-1	1.096* (0.055)	1.067* (0.059)
Openness, t-1	0.002 (0.281)	0.002 (0.292)
IO membership, t-1	5.491*** (0.002)	5.230*** (0.004)
ICRG risk, t-1		0.005 (0.252)
Number of observations	1819	1819
R-squared Adj.	0.84	0.85
Wooldridge test (p-value)	0.003	0.006
Robust regression-based F (p-value)	0.004	0.008
Overidentifying restrictions (p-value)	0.419	0.386

GMM Results

	(2)	(3)
(Log) FDI net inflows, t-1	0.433*** (0.000)	0.413*** (0.000)
(Log) Population, t-1	0.498*** (0.000)	0.516*** (0.000)
(Log) GDP p.c., t-1	0.811*** (0.000)	0.700*** (0.000)
GDP p.c. growth, t-1	0.485 (0.481)	0.715 (0.260)
Openness, t-1	0.005*** (0.000)	0.005*** (0.000)
IO membership, t-1	0.740*** (0.004)	0.597** (0.019)
ICRG risk, t-1		0.016*** (0.001)
Number of observations	1878	1878
Number of countries	115	115
Number of instruments	124	124
Arellano-Bond test (Pr>z)	0.54	0.54
Hansen test (Prob>chi2)	0.71	0.71

Robustness 2: Control for Other Institutional Variables

- Substituting the ICRG country risk rating by alternative indices of directly observable political risk, ...
 - ...Euromoney country risk rating, ...
 - ...Institutional Investor country risk rating, ...
 - ...Fraser index of economic freedom, ...

does not alter the results.

Robustness 3: Subcomponents of IO index

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ICRG risk, t-1	-0.033 (0.209)	0.008** (0.039)	0.009 (0.124)	0.034* (0.085)	0.009** (0.043)	0.017*** (0.002)	0.001 (0.895)	-0.033 (0.726)	-0.005 (0.577)
Gatt/WTO, t-1	8.948* (0.094)								
ICSID, t-1		0.020 (0.983)	0.376* (0.070)						
IFC, t-1				15.080* (0.075)					
ICCP, t-1					2.168*** (0.006)				
ICESCR, t-1						3.196*** (0.006)			
Optional Protocol to ICCPR, t-1							2.494*** (0.001)		
New York Convention, t-1								-26.631 (0.639)	
Convention against Torture, t-1									3.388** (0.037)
Method	2SLS	2SLS	OLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
Number of observations	1819	1819	1819	1819	1819	1819	1819	1819	1819
R-squared Adj.	0.36	0.88	0.48	0.66	0.85	0.82	0.83	.	0.76
Wooldridge test (p-value)	0.001	0.700		0.001	0.004	0.001	0.001	0.010	0.017
Robust regression-based F (p-value)	0.001	0.708		0.002	0.004	0.001	0.001	0.016	0.018
Overidentifying restrictions (p-value)	0.724	0.693		0.898	0.277	0.516	0.983	0.559	0.214