



COUNTRY RISK AND VALUATION OF U.S.-LISTED FOREIGN FIRMS

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Abstract

This study investigates the association of country risk with IPO valuations. Based on the law and finance literature, I hypothesize that firms domiciled in countries with higher country risk are worth less, other things equal. I test this hypothesis with a sample of international companies making their IPO debuts in the United States. The results indicate that several commonly used country-level variables can explain the observed IPO valuation differences across countries. In particular, the index of economic freedom, developed by the Heritage Foundation, and the Transparency International's corruption index have significant impact on IPO valuations. Specifically, IPO firms domiciled in countries with more economic freedom and less corruption are associated with higher valuation.

Data and Sample

The sample contains 293 U.S.-listed foreign IPOs completed from 1986 to 2002. Valuation is measured by a firm's Tobin's q , which is defined as the ratio of total asset (TA), minus book value of equity (BE), plus market value of equity (ME), over total asset. The market/book ratio is the ratio of market equity over book equity.

Table 1 Sample Distribution and Summary Statistics

Tobin's q and ME/BE by Year					
Year	N	Mean q	Median q	Mean ME/BE	Median ME/BE
1986	2	1.265	1.265	1.604	1.604
1987	7	1.738	1.217	1.999	1.433
1988	3	1.238	1.139	1.424	1.234
1989	6	1.372	1.387	2.263	1.785
1990	3	1.270	0.993	1.512	0.988
1991	6	2.029	2.085	3.434	2.855
1992	17	3.412	2.954	7.133	3.682
1993	27	3.119	2.498	4.676	3.346
1994	26	2.787	1.713	3.400	2.056
1995	24	2.369	1.944	4.560	2.204
1996	59	3.326	2.112	3.441	3.041
1997	41	2.650	2.177	4.881	3.013
1998	21	3.981	1.611	9.947	2.385
1999	19	6.131	6.213	6.025	7.744
2000	18	1.986	1.774	2.430	1.877
2001	7	2.195	1.729	6.642	1.970
2002	7	2.155	1.480	3.865	2.045
Whole Sample	293	3.021	1.925	4.605	2.786
Mean Tobin's q and ME/BE by Industry					
Industry	N	Mean q	Median q	Mean ME/BE	Median ME/BE
High-tech	124	4.026	2.651	6.251	3.524
Non High-Tech	169	2.284	1.629	3.397	2.052
Mean Tobin's q and ME/BE by Exchange					
Exchange	N	Mean q	Median q	Mean ME/BE	Median ME/BE
NYSE	133	2.300	1.611	3.611	2.163
AMEX	17	1.853	1.254	2.172	1.533
Nasdaq	135	3.657	2.443	5.715	3.134
OTC	2	2.195	2.195	2.640	2.640
SmallCap	6	8.307	2.858	9.224	3.397
Mean Tobin's q and ME/BE by Nature of Shares					
Nature of Shares	N	Mean q	Median q	Mean ME/BE	Median ME/BE
ADRs	154	2.763	1.929	4.099	2.859
Non-ADRs	139	3.308	1.925	5.165	2.496
Mean Tobin's q and ME/BE by Nature of Offerings					
Nature of Offerings	N	Mean q	Median q	Mean ME/BE	Median ME/BE
Global IPOs	160	2.891	1.906	5.188	2.697
Pure U.S. IPOs	133	3.179	1.928	3.905	2.840

Country Risk Measures

Measure 1: A Country's Legal Heritage

Laws vary a lot across countries, partly due to differences in legal origin. Based on previous studies, each country is assigned to one of four legal traditions:

- (1) English common law
- (2) French civil law
- (3) German civil law
- (4) Scandinavian civil law.

In general, common law countries give both shareholders and creditors the strongest, and French civil law countries the weakest, protection. German civil law and Scandinavian countries generally fall between the other two.

Measure 2: Economic Freedom

The *Index of Economic Freedom* is created by the Heritage Foundation along with the Wall Street Journal. Since 1995 this index has tracked the march of economic freedom of more than 180 countries around the world. The economic freedom is described as the absence of government coercion or constraint on the production, distribution, or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty itself.

Measure 3: Freedom from Corruption

Corruption index is from Transparency International

Other Measures are also used:

1. Anti-director-rights index
2. Anti-self-dealing index
3. GNI per capita

Table 2 Tobin's q and Law and Economic Indicators Sorted by Legal Heritage

Origin of Law	N	Tobin's q	Economic Freedom	Corruption Index	GNI per Capita (Current US\$)	GDP Growth (%)
English	144	3.443	72.9	75.1	17,400	4.63
French	92	2.471	61.5	58.6	12,524	3.75
German	22	3.60	70.6	75.1	27,853	2.78
Scandinavian	10	2.443	65.0	89.9	29,329	3.20
Offshore	25	2.340	73.3	67.1	20,917	3.59
Whole Sample	293	3.021	69.0	69.8	17,094	4.10
Kruskal-Wallis Test Chi-square (p-value)		3.92 (0.42)	78.78 (0.000)	62.66 (0.000)	19.63 (0.001)	12.12 (0.017)

Research Method

Regression analyses are used to examine the effect of country risk variables on the valuation of foreign IPOs listed in the U.S.

$$\text{IPO Valuation} = \alpha + \beta X + \gamma Y$$

X represent offer- and firm-specific variables that may affect the valuation of IPO firms. They include firm size, high tech dummy, global offer dummy, IPO first-day return and the number of underwriting managers. Y represents a number of country risk variables.

Empirical Results

Table 3 Regression Results
The independent variable is IPO valuation, measured by Tobin's q.

Variables	(1)	(2)	(3)	(4)	(5)
Intercept	4.875 [5.21]***	2.665 [1.96]**	-1.680 [-0.88]	2.187 [1.80]*	-2.083 [-1.04]
High-Tech	1.240 [3.51]***	1.199 [3.29]***	1.288 [3.63]***	1.267 [3.56]***	1.290 [3.57]***
Global Offer	0.631 [1.71]*	0.621 [1.59]	0.774 [2.05]**	0.714 [1.88]*	0.683 [1.81]*
Initial Return	1.138 [1.10]	1.017 [0.87]	0.905 [0.85]	1.071 [0.97]	0.884 [0.82]
N_Managers	0.170 [2.61]***	0.191 [2.77]***	0.183 [2.36]**	0.189 [2.48]**	0.201 [2.72]***
Ln (TA)	-0.601 [-3.43]***	-0.648 [-3.36]***	-0.645 [-3.37]***	-0.638 [-3.36]***	-0.70 [-3.63]***
LN (GNI per capita)		0.140 [0.70]	0.265 [1.87]*	0.138 [1.02]	0.130 [0.66]
English		0.761 [0.91]			0.734 [0.88]
French		0.705 [0.75]			1.546 [1.56]
German		1.386 [1.31]			1.615 [1.56]
Scandinavian		0.426 [0.52]			0.985 [1.15]
Economic Freedom			0.05 [2.85]***		0.07 [3.21]***
TI Corruption Index				0.016 [2.72]***	
Adj. R ²	0.157	0.157	0.178	0.173	0.175
F-value	11.91***	6.15***	9.61***	9.29***	6.35***

The results indicate that IPO valuation is not only affected by its offer- and firm-characteristics such as firm size, whether or not it is in the high-tech sector and the number of underwriters, but also affected by the home country's economic freedom and freedom from corruption. The magnitude of the coefficient of the economic freedom index implies that for each 10 point increase in a nation's economic freedom index, the average q ratio can increase by 0.70.

Conclusion

Overall, this paper finds that the valuation of U.S.-listed foreign IPOs is significantly affected by a number of country risk measures, the most pronounced of which are economic freedom and corruption. The result is consistent with previous studies showing that IPO firms from countries with governmental policies and institutional practices that protect the economic freedom of its citizens are significantly less underpriced.

Testable Hypothesis

In general, countries with weak legal institutions or less economic freedom are associated with weak investor protection and shaky corporate governance. Hence, the main hypothesis of the paper is as follows:

The valuation of foreign IPOs is inversely related to country risk. In other words, firms domiciled in countries with higher country risk are worth less, other things equal, at their IPO debuts in the United States.