sp500 risk premium	5.2%
emerging relative volatility	1.3

	rating_ds	rating_crp	rating_erp
Caribbean	6.5%	8.1%	13.4%
Central and South America	4.4%	5.5%	10.7%

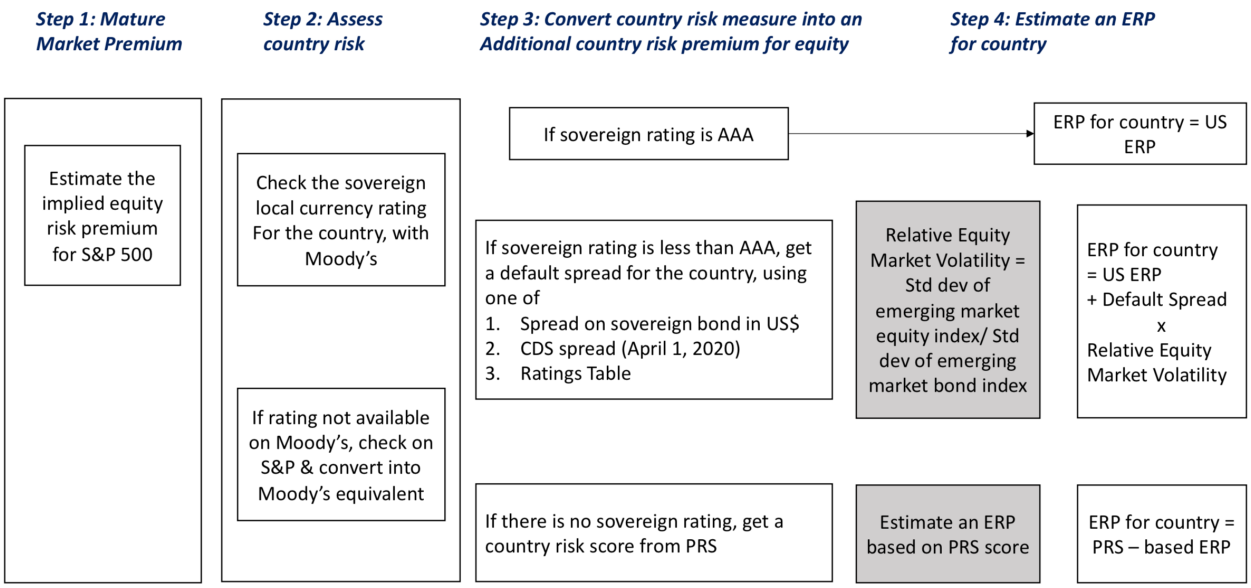
country	region	sp_rating	moodys_rating	rating_ds	rating_crp	rating_erp
Cayman Islands	Caribbean		Aa3	0.7%	0.9%	6.1%
Chile	Central and South America	A+	A1	0.8%	1.0%	6.3%
Bermuda	Caribbean	A+	A2	1.0%	1.2%	6.5%
Peru	Central and South America	BBB+	A3	1.4%	1.8%	7.0%
Aruba	Caribbean	BBB+	Baa1	1.9%	2.3%	7.6%
Mexico	Central and South America	BBB	Baa1	1.9%	2.3%	7.6%
Panama	Central and South America	BBB+	Baa1	1.9%	2.3%	7.6%
Turks and Caicos	Caribbean	BBB+	Baa1	1.9%	2.3%	7.6%
Colombia	Central and South America	BBB-	Baa2	2.2%	2.8%	8.0%
Curacao	Caribbean	BBB	Baa2	2.2%	2.8%	8.0%
Uruguay	Central and South America	BBB	Baa2	2.2%	2.8%	8.0%
Montserrat	Caribbean	BBB-	Baa3	2.6%	3.2%	8.5%
St. Maarten	Caribbean		Baa3	2.6%	3.2%	8.5%
Guatemala	Central and South America	BB-	Ba1	2.9%	3.7%	8.9%
Paraguay	Central and South America	BB	Ba1	2.9%	3.7%	8.9%
Trinidad and Tobago	Caribbean	BBB-	Ba1	2.9%	3.7%	8.9%
Bahamas	Caribbean	BB	Ba2	3.5%	4.4%	9.6%
Brazil	Central and South America	BB-	Ba2	3.5%	4.4%	9.6%
Dominican Republic	Caribbean	BB-	Ba3	4.2%	5.3%	10.5%
Bolivia	Central and South America	B+	B1	5.3%	6.6%	11.8%
Honduras	Central and South America	BB-	B1	5.3%	6.6%	11.8%
Costa Rica	Central and South America	B+	B2	6.5%	8.1%	13.3%
Jamaica	Caribbean	B+	B2	6.5%	8.1%	13.3%
El Salvador	Central and South America	B-	B3	7.6%	9.6%	14.8%
Nicaragua	Central and South America	B-	B3	7.6%	9.6%	14.8%
St. Vincent & the Grenadines	Caribbean		B3	7.6%	9.6%	14.8%
Suriname	Central and South America	CCC+	B3	7.6%	9.6%	14.8%
Barbados	Caribbean	B-	Caa1	8.8%	11.0%	16.2%
Belize	Central and South America	CCC	Caa1	8.8%	11.0%	16.2%
Cuba	Caribbean		Caa2	10.6%	13.2%	18.5%
Ecuador	Central and South America	SD	Caa3	11.7%	14.7%	19.9%
Argentina	Central and South America	SD	Ca	14.1%	17.6%	22.9%
Venezuela	Central and South America	SD	C	17.5%	21.9%	27.1%

DR Company Risk Exposure

Rafael Nicolas Fermin Cota

2020-09-24

The country risk in valuation is built on two presumptions. First, a company's risk exposure is based on where it does business, not where it is incorporated or headquartered [1]. Second, the risk of investing in equities varies across the world, resulting in higher equity risk premiums in some markets than others. To estimate these risk premiums, I follow a four-step process:



As an example, let's assume that I want to estimate the *equity risk premium* for operating in the Dominican Republic.

(1) I start with the implied equity risk premium for the S&P in July 01, 2020, which I estimated to be 5.23%. I use this estimate as the mature market premium.

(2) As a second step, I look up the local currency sovereign rating for the Dominican Republic from Moody's Sovereign & Supranational and arrive at a Ba3 rating; the typical default spread for a Ba3 rated country on July 01, 2020 was 4.22%. I check this estimate against the sovereign CDS spread for Dominican Republic, which was NA% on July 01, 2020. I use the ratings-based spread of 4.22% as the default spread for the Dominican Republic, though I would not raise too much of a fight, if you insisted on using the CDS spread.

[1] The conventional practice in valuation, which seems to be ascribe to all countries incorporated and listed in a country, the country risk premium for that country, is both sloppy and wrong. A company's risk comes from where and how it operates its businesses, not where it is incorporated and traded. A German company that manufactures its products in Poland and sells them in China is German only in name and is exposed to Polish and Chinese country risk. One reason that I estimate the equity risk premiums for as many countries as I need them in both valuation and corporate finance, even if every company I analyze is a US company.

(3) In the third step, I try to estimate how much riskier equities are than government bonds in emerging markets by using proxies for each one: the S&P Emerging BMI Index (an index of emerging market equities) for stocks, and the S&P Emerging Market Public (government and quasi government) bond index yield. The ratio of the standard deviation in the former and the coefficient of variation in the latter is 1.25. Multiplying this ratio by the default spread in step 2 yields a country risk premium for the Dominican Republic of 5.29%.

(4) In the fourth step, I add the country risk premium to the implied premium of 5.23% that I estimated in `step 1` to arrive at an equity risk premium for the Dominican Republic of 10.52%.

If *equity risk premiums* are a critical ingredient for valuation, they are just as important in corporate finance, determining what hurdle rates multinationals should use, when considering projects in foreign markets. With *L'Oreal*, for instance, a project for expansion in Brazil should carry the equity risk premium for Brazil, whereas a project in India should carry the Indian equity risk premium. The notion of a corporate cost of capital that you use on every project is both absurd and dangerous, and becomes even more so when you are in multiple businesses.