

# COUNTRY RISK

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# 1. Country Risk Versus Political Risk

- Country risk
  - Political and economic risks of operating in a country
    - Political: government action will negatively affect a company's cash flows (expropriation, nationalization)
    - Economic: Country recession, labor strikes, clashes
  - Sovereign risk
    - Risk associated with government defaulting on bond payments
- What factors enter a country risk analysis?
  - Financial and economic risk factors
    - Ratio of a country's external debt to its GDP
    - Ratio of a country's debt service payments to its exports
    - Ratio of a country's imports to its official international reserves
    - A country's terms of trade (export / import prices)
    - A country's current account deficit

# 1. Country Risk Versus Political Risk

- Political risk factors
  - Expropriation / nationalization – worst-case scenario
  - Contract repudiation
  - Taxes and regulation (i.e., hiring / firing, environmental standards, repatriation of funds)
  - Exchange controls (e.g., Argentina in 2002)
  - Corruption and legal inefficiency
    - Transparency International Corruption Perceptions Index for more than 170 countries
  - Ethnic violence, political unrest, and terrorism
  - Home-country restriction

# 1. Country Risk Versus Political Risk

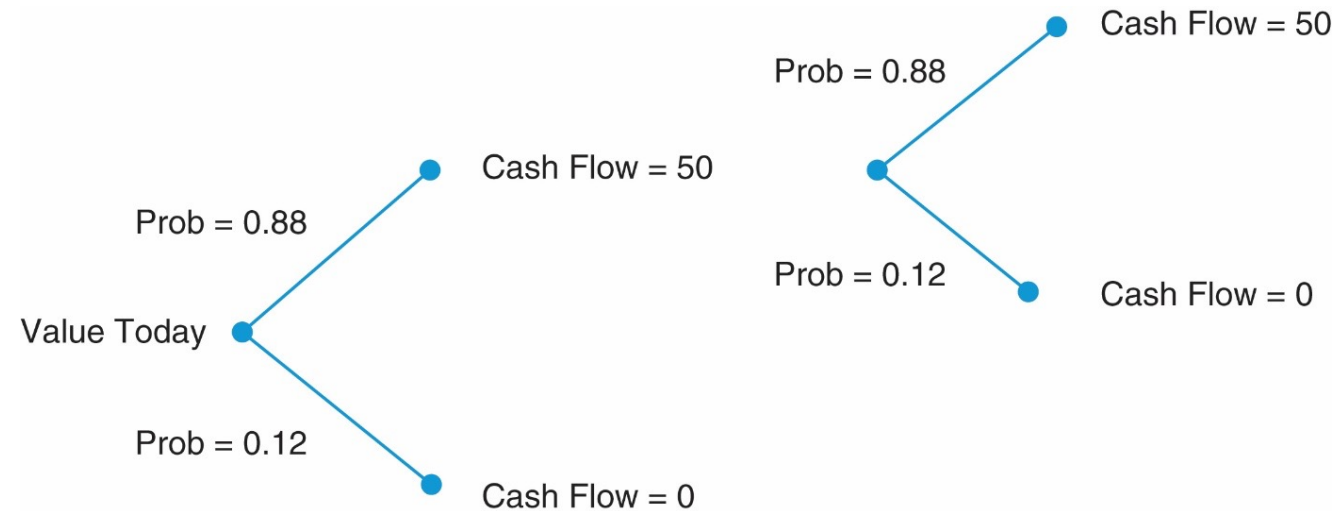
- The Debt Crisis (1980s)
  - Origins of the debt crisis
    - Mexico announced in 1982 they could not repay their foreign debt; by the end of the year 24 other countries followed suit
  - Managing the debt crisis: The Baker plan (1985)
    - Loans by banks/World Bank in exchange for agreeing to follow economic advice
    - Debt overhang issue
  - Debt and debt service-reducing operations
    - Debt buyback (at a discount)
    - Debt-equity swap
      - MNC buys discounted debt to invest – helps country and is cheaper way for companies to invest in developing nations

## 2. Incorporating Political Risk in Capital Budgeting

- Adjusting expected cash flows for political risk (infinite constant cash flows, constant probability of expropriation)
  - Compute discount rate normally (i.e., without expropriation risk)
  - Compute a probability distribution of expropriation risks for each future period
  - Compute an expected NPV based on those
- Adjusting the discount rate instead of cash flows
  - Discount rates for emerging markets and political risk:
    - $r^* = (r + p)/(1 - p)$ ,  $p$  = probability of worse case scenario

# Adjusting the MNC's Cash Flows for Political Risk

- Oconoc, an American oil company invests 75 million USD, predicts that the project will yield it \$50 million per year for 2 years.
- The probability that the government will expropriate the project is 12% each year
- Discount rate = 10%
- $$V = \frac{(0.88 \times 50) + (0.12 \times 0)}{1.1} + \frac{(0.88^2 \times 50) + (0.88 \times 0.12 \times 0) + (0.12 \times 0)}{1.1^2} = 72 \text{ mil. USD}$$
- Manager can also find the expropriation
- Probability  $p$  that would cause the project to have a net present value (NPV) of 0.
- $r^* = 0.25$



# Example of Political Risk Analysis

## Risk Attributes:

- Political risk analysis uses measurable “risk attributes” (at top) to predict risk events for MNCs (bottom).
  - Political stability (for example, the number of different governments in power over time)
  - Ethnic and religious unrest; the strength and organization of radical groups
  - The level of violence and armed insurrections; the number of demonstrations
  - Enforcement of property rights
  - The extent of xenophobia (fear of foreigners); the presence of extreme nationalism
- The different political variables are then weighted and added to provide one country score.

# Examples of Rating Systems

- The PRS Group's ICRG Rating System  
Political Risk Services Group (PRS Group), focuses on future risks, some ratings services focus on current conditions only ([more info](#))
- The political risk measure is based on 12 different subcomponents, and the financial and economic risk measures are based on five subcomponents each

Exhibit 14.5 The ICRG risk components

## Political risk components

Component	Points (max.)
Government stability	12
Socioeconomic conditions	12
Investment profile	12
Internal conflict	12
External conflict	12
Corruption	6
Military in politics	6
Religious tensions	6
Law and order	6
Ethnic tensions	6
Democratic accountability	6
Bureaucracy quality	4
<b>Maximum total points</b>	<b>100</b>
<b>Financial risk components</b>	
<b>Component</b>	
Foreign debt as a percentage of GDP	10
Foreign debt service as a percentage of XGS*	10
Current account as a percentage of XGS*	15
Net liquidity as months of import cover	5
Exchange rate stability	10
<b>Maximum total points</b>	<b>50</b>
<b>Economic risk components</b>	
<b>Component</b>	
GDP per head of population	5
Real annual GDP growth	10
Annual inflation rate	10
Budget balance as a percentage of GDP	10
Current account balance as a percentage of GDP	15
<b>Maximum total points</b>	<b>50</b>



# Country and Political Risk Ratings for Selected Countries

**Exhibit 14.6** Country and political risk ratings for selected countries

Country	Overall country risk	Political risk	Quality of institutions	Conflict	Democratic tendencies	Policies	Investment conditions/ corruption
USA	76.8	81.5	81.3	83.3	83.3	79.2	88.9
UK	76.0	80.5	84.4	77.8	100.0	75.0	80.6
France	74.5	78.0	81.3	73.6	95.8	75.0	88.9
Germany	82.3	83.0	87.5	84.7	100.0	73.6	91.7
Japan	82.0	80.5	84.4	84.7	83.3	73.6	88.9
Norway	91.0	89.0	93.8	88.9	100.0	83.3	91.7
Somalia	36.0	24.0	9.4	34.7	16.7	22.2	16.7
Brunei	87.5	82.5	68.8	93.1	45.8	90.3	77.8
Indonesia	67.8	60.5	50.0	61.1	62.5	63.9	66.7
Malaysia	78.5	73.0	59.4	77.8	79.2	72.2	63.9
Singapore	82.5	84.5	84.4	87.5	58.3	90.3	91.7
Vietnam	68.3	65.5	53.1	83.3	33.3	63.9	58.3
Myanmar	51.8	46.5	34.4	66.7	8.3	44.4	22.2
Philippines	72.3	62.5	46.9	70.8	66.7	59.7	61.1
Thailand	68.8	56.0	40.6	58.3	62.5	58.3	52.8

# Examples of Rating Systems

- <https://info.worldbank.org/governance/wgi/Home/Reports>
- <https://www.marsh.com/us/services/political-risk/insights/political-risk-report.html>
- Credit rating: <https://tradingeconomics.com/country-list/rating>
- Ease of doing business index: <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ>
- The composite risk indicator of the Economist Intelligence Unit (EIU), a sister company to the magazine The Economist

# 3. Country and Political Risk Analysis

- Country Credit Spreads

- Difference between yields of government bonds. If the yield on a 5-year Italy bond is 6%, and the yield on a 5-year bond issued by the German government is 3%, the Italian country credit spread is 3%.
- Sovereign credit ratings – Moody's, S&P, Fitch
- Why is sovereign credit risk different?
  - Cannot take a country to bankruptcy court, no formal bankruptcy proceedings.
  - Still, there are consequences
    - Country will not be able to borrow so easily going forward
    - International trade could be impacted
    - Default could make economic crises worse

# Sovereign Credit Ratings by Standard & Poor's

Exhibit 14.7 Sovereign credit ratings by Standard & Poor's

Albania	B+	Fiji Islands	B+	The Netherlands	AAA
Andorra	BBB-	Finland	AA+	New Zealand	AA
Angola	B+	France	AA	Nicaragua	B+
Argentina	D	Gabonese Republic	B	Nigeria	B+
Aruba	BBB+	Georgia	BB-	Norway	AAA
Australia	AAA	Germany	AAA	Oman	BBB-
Austria	AA+	Ghana	B-	Pakistan	B-
Azerbaijan	BB+	Greece	B-	Panama	BBB
Bahamas	BBB-	Grenada	D	Papua New Guinea	B+
Bahrain	BB	Guatemala	BB	Paraguay	BB
Bangladesh	BB-	Guernsey	AAA	Peru	BB
Barbados	B	Honduras	B+	Philippines	BBB
Belarus	B-	Hong Kong	AAA	Poland	BBB+
Belgium	AA	Hungary	BB+	Portugal	BB+
Belize	B-	Iceland	BBB+	Qatar	AA
Benin	B	India	BBB-	Romania	BBB-
Bermuda	A+	Indonesia	BB+	Russia	BB+
Bolivia	BB	Ireland	A+-	Rwanda	B+
Bosnia and Herzegovina	B+	Isle of Man	A	Saudi Arabia	A-
Botswana	A-	Israel	A+	Senegal	B+
Brazil	BBB-	Italy	BBB-	Serbia	BB-
Bulgaria	B	Jamaica	B-	Singapore	AAA
Burkina Faso	B-	Japan	A-	Slovakia	A+
Cambodia	B+	Jordan	BB-	Slovenia	A-
Cameroon	B	Kazakhstan	BBB	South Africa	BBB-
Canada	AAA	Kenya	B+	Spain	AA
Cape Verde	B+	Korea	A	Sri Lanka	B+
Chile	AA+-	Kuwait	AA+	Suriname	B+
China	AA-	Kyrgyzstan	B	Sweden	AAA
Colombia	BBB-	Latvia	BB+	Switzerland	AAA
Cook Islands	BB-	Lebanon	B-	Taiwan	AA-
Costa Rica	BB-	Liechtenstein	AAA	Thailand	BBB+
Croatia	BBB-	Lithuania	BBB	Trinidad and Tobago	A
Cyprus	BB-	Luxembourg	AAA	Tunisia	BBB-
Czech Republic	AA-	Macedonia	BB-	Turkey	BB
Denmark	AAA	Malaysia	A-	Uganda	B+
Dominican Republic	BB-	Malta	BBB+	Ukraine	B+
Ecuador	B-	Mexico	BBB+	United Arab Emirates	AA
Egypt	B	Mongolia	BB-	United Kingdom	AAA
El Salvador	B+	Montenegro	B+	United States	AAA
Estonia	AA-	Morocco	BBB-	Uruguay	BB
Ethiopia	B	Mozambique	B+	Venezuela	BB-
		Mozambique	B+	Vietnam	BB-
				Zambia	B

# 3. Country and Political Risk Analysis

- Brady Bonds
  - Valued like other fixed-income securities but have special features
    - Principal collateral: all par and discount bonds are collateralized by US Treasury zero-coupon securities
    - Interest collateral: the government issuing Brady bonds deposits money w/ NY Federal Reserve Bank in amounts covering 12 – 18 months of interest payments
    - Sovereign portion: The remaining cash flows are subject to sovereign risk

### 3. Country and Political Risk Analysis

- Country spreads and political risk probabilities
  - An indication of default risk of a sovereign bond
    - Not the risk of expropriation
  - Moody's reported in 2011 an historical recovery rate of 30-35%
- Default probabilities with positive recovery values
  - Stripped Price is the dollar price of the bond after subtracting the value of the collateral
    - Stripped price:
      - $Stripped\ Price = \sum_{j=1}^{10} \frac{CF(j)(1-p)^j}{[1+i(j)]^j}$ , CF(j) is the promised dollar cash flow at time j; i(j) is the USD spot interest rate for period j ; and p is the default probability. The assumptions are that the default probability is constant over time and the recovery value upon default is 0.

# 3. Country and Political Risk Analysis

- Adjusting capital flows
  - Preferred to adjusting discount rate
  - Must compute the political risk probabilities
- Computing political risk probabilities
  - Country credit spreads
    - Examine securities of different maturities
    - Local macroeconomic conditions and, importantly, global risk factors (such as U.S. credit spreads) play an important role
    - About 40% of the variation in spreads is due to political risk factors Bekaert et al. (2011)
  - Political risk ratings
    - No evidence of predictive ability
    - Could be lagging (and not leading)
  - Political risk insurance premiums

# Country and Currency Premiums Around the Mexican Currency Crisis

Exhibit 14.9 Country and currency premiums around the Mexican currency crisis

Exchange rate		Three-month interest rates			Spreads		
		USA	Mexico		Country risk premium	Currency risk premium	Default probability
Month	Peso/\$ Spot	T-bill	Cetes	Tesobonos			
Dec 93	3.1070	3.054	10.370	5.090	2.021	5.569	0.5026
Jan 94	3.1065	2.992	10.890	4.670	1.666	6.148	0.4147
Feb 94	3.1900	3.435	9.340	5.050	1.601	4.237	0.3987
Mar 94	3.3586	3.538	10.120	6.790	3.223	3.274	0.7994
Apr 94	3.2700	3.940	16.450	7.750	3.773	8.535	0.9344
May 94	3.3200	4.260	16.770	7.190	2.899	9.411	0.7196
June 94	3.3900	4.240	17.000	7.000	2.731	9.828	0.6781
July 94	3.4000	4.354	17.190	7.250	2.865	9.763	0.7111
Aug 94	3.3785	4.655	13.820	7.240	2.555	6.463	0.6348
Sept 94	3.3955	4.768	13.100	6.790	1.998	6.205	0.4971
Oct 94	3.4335	5.121	14.350	6.730	1.589	7.494	0.3956
Nov 94	3.4475	5.423	14.760	7.500	2.049	7.126	0.5097
Dec 94	5.0750	5.682	31.990	10.490	4.741	20.95	1.171
Jan 95	5.7350	5.902	38.000	24.980	18.80	12.25	4.489
Feb 95	5.8750	5.870	57.000	16.990	10.96	38.38	2.667



# Credit Default Swap

- The **credit default swap** (CDS) is a type of **credit** derivative product. **Credit** derivatives provide transferring **credit** risk, which is the possibility that one of the contract parties will not be able to fulfill his obligations, from one contractor to another
- <http://www.worldgovernmentbonds.com/sovereign-cds/>