

# Chapter Objectives

- Identify the common factors used by MNCs to measure country risk.
- Explain how to measure country risk.
- Explain how MNCs use the assessment of country risk when making financial decisions.
- Explain how MNCs can prevent host government takeovers.

# What is Country Risk Analysis

Country risk is the potentially adverse impact of a country's environment on an MNC's cash flows.

An MNC conducts country risk analysis when it applies capital budgeting to determine whether to implement a new project in a particular country or to continue conducting business in a particular country.

# Country Risk Characteristics (1 of 3)

## Political Risk Characteristics

- **Attitude of consumers in the host country** — A tendency of residents to purchase only locally produced goods.
- **Laws enacted by the host government**— A host government might impose pollution control standards and additional corporate taxes, as well as withholding taxes and fund transfer restrictions.
- **Blockage of fund transfers** — A host government may block fund transfers, which could force subsidiaries to undertake projects that are not optimal (just to make use of the funds).
- **Currency inconvertibility** — Some governments do not allow the home currency to be exchanged into other currencies.

# Country Risk Characteristics (2 of 3)

## Political Risk Characteristics (continued)

- **War** — Conflicts with neighboring countries or internal turmoil can affect the safety of employees hired by an MNC's subsidiary or by salespeople who attempt to establish export markets for the MNC.
- **Inefficient bureaucracy** — Bureaucracy can delay an MNC's efforts to establish a new subsidiary or expand business in a country.
- **Corruption** — Corruption can occur at the firm level or with firm-government interactions. Transparency International has derived a corruption index for most countries (see [www.transparency.org](http://www.transparency.org)). (Exhibit 16.1)

## Exhibit 16.1 Corruption Index Ratings for Selected Countries (maximum rating = 10; high ratings indicate low corruption) (1 of 2)

Country	Corruption Index
New Zealand	89
Denmark	88
Finland	85
Switzerland	85
Singapore	85
Norway	84
Netherlands	82
Canada	81
Luxembourg	81
United Kingdom	80
Germany	80

Country	Corruption Index
Australia	76
Hong Kong	76
Iceland	76
Austria	76
Belgium	75
Ireland	73
Japan	73
Estonia	73
France	72
United States	71
United Arab Emirates	70

## Exhibit 16.1 Corruption Index Ratings for Selected Countries (maximum rating = 10; high ratings indicate low corruption) (2 of 2)

Country	Corruption Index
Taiwan	63
Israel	61
Slovenia	60
Poland	60
Czech Republic	59
Spain	58
South Korea	57
Italy	52
Saudi Arabia	49
Malaysia	47
Greece	45

Country	Corruption Index
India	41
China	39
Indonesia	38
Thailand	36
Brazil	35
Russia	29
Iran	28
Mexico	28
Venezuela	18
Iraq	18
Afghanistan	16

# Country Risk Characteristics (3 of 3)

## Financial Risk Characteristics

- **Economic Growth** is influenced by:
  - **Interest rates:** Higher interest rates tend to slow growth and reduce demand for MNC products.
  - **Exchange rates:** Strong currency may reduce demand for the country's exports, increase volume of imports, and reduce production and national income.
  - **Inflation:** Inflation can affect consumers' purchasing power and their demand for MNC goods.

# Measuring Country Risk (1 of 5)

**Macro-assessment of country risk** represents an overall risk assessment of a country and considers all variables that affect country risk except those that are firm-specific.

**Micro-assessment of country risk** involves assessment of a country as it relates to the MNC's type of business.



# Measuring Country Risk (2 of 5)

## Techniques to Assess Country Risk

- **Checklist approach:** Ratings assigned to various factors
- **Delphi technique:** Collection of independent opinions without group discussion
- **Quantitative analysis:** Use of models such as regression analysis
- **Inspection visits:** Meetings with government officials, business executives, and consumers to clarify risk
- **Combination of techniques:** Many MNCs have no formal method but use a combination of methods

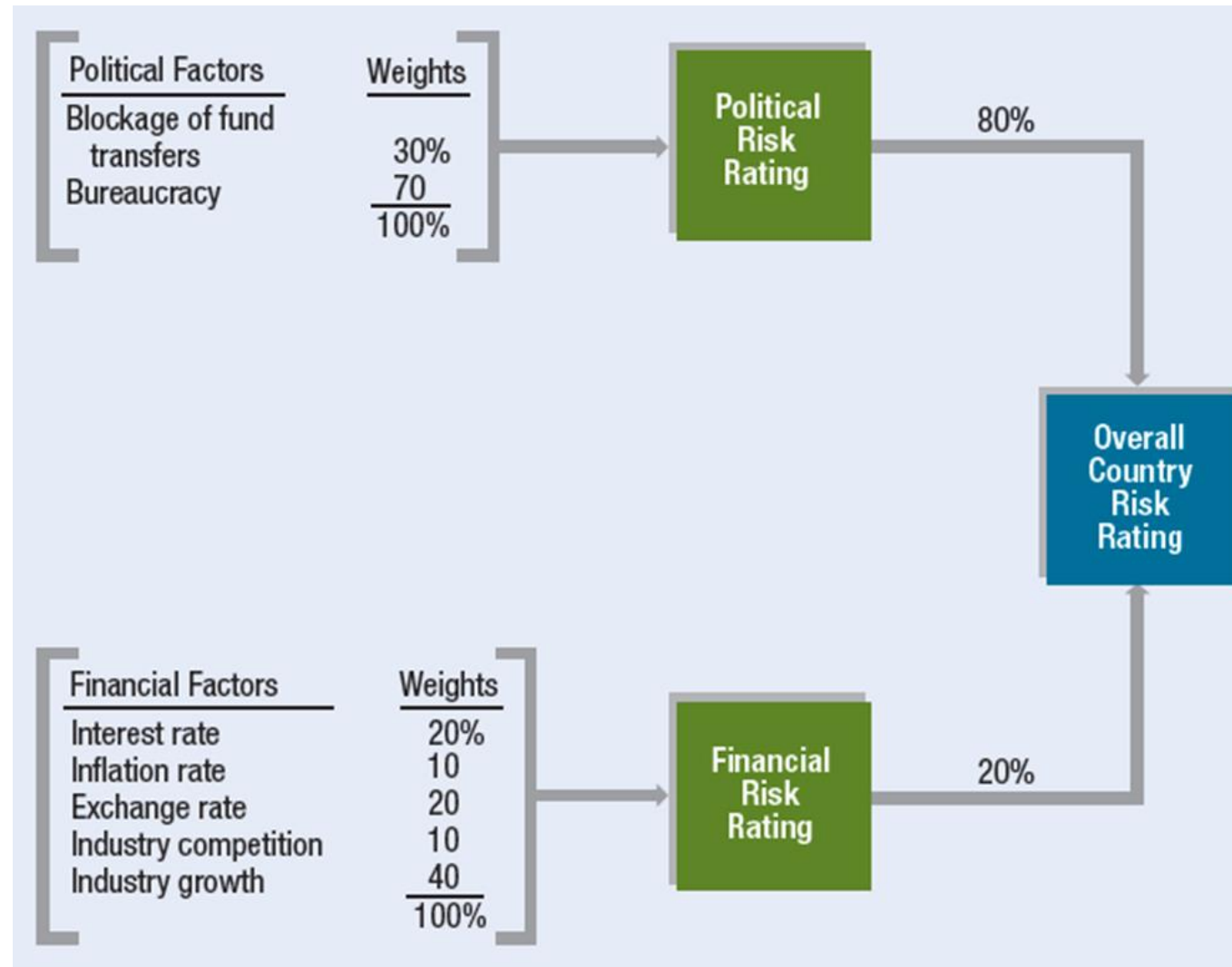
# Measuring Country Risk (3 of 5)

## Deriving A Country Risk Rating (Exhibits 16.2 and 16.3)

An overall country risk rating using a checklist approach can be developed from separate ratings for political and financial risk.

- First, the political factors are assigned values within some range.
- Next, these political factors are assigned weights. The assigned values of the factors times their respective weights can then be summed to derive a political risk rating.
- The process is then repeated to derive the financial risk rating.
- Once the political and financial ratings have been derived, a country's overall country risk rating as it relates to a specific project can be determined by assigning weights to the political and financial ratings according to importance.

# Exhibit 16.2 Determining the Overall Country Risk Rating



# Exhibit 16.3 Derivation of the Overall Country Risk Rating Based on Assumed Information (1 of 2)

(1)	(2)	(3)	(4) = (2) × (3)
POLITICAL RISK FACTORS	RATING ASSIGNED BY COMPANY TO FACTOR (WITHIN A RANGE OF 1–5)	WEIGHT ASSIGNED BY COMPANY TO FACTOR ACCORDING TO IMPORTANCE	WEIGHTED VALUE OF FACTOR
Blockage of fund transfers	4	30%	1.2
Bureaucracy	3	<u>70</u>	<u>2.1</u>
		100%	3.3 = Political risk rating
FINANCIAL RISK FACTORS			
Interest rate	5	20%	1.0
Inflation rate	4	10	0.4
Exchange rate	4	20	0.8
Industry competition	5	10	0.5
Industry growth	3	<u>40</u>	<u>1.2</u>
		100%	3.9 = Financial risk rating

# Exhibit 16.3 Derivation of the Overall Country Risk Rating Based on Assumed Information (2 of 2)

(1)	(2)	(3)	(4) = (2) × (3)
CATEGORY	RATING AS DETERMINED ABOVE	WEIGHT ASSIGNED BY COMPANY TO EACH RISK CATEGORY	WEIGHTED RATING
Political risk	3.3	80%	2.64
Financial risk	3.9	<u>20</u>	<u>0.78</u>
		100%	3.42 = Overall country risk rating

# Measuring Country Risk (4 of 5)

## Deriving A Country Risk Rating (continued)

- **Governance of the Country Risk Assessment**
  - MNCs need a proper governance system to ensure that managers fully consider country risk when assessing potential projects.
  - One solution is to require that major long-term projects use input from an external source (such as a consulting firm) regarding the country risk assessment of a specific project and that this assessment be directly incorporated in the analysis of the project.

# Measuring Country Risk (5 of 5)

## Comparing Risk Ratings among Countries

One approach to comparing political and financial ratings among countries is a foreign investment risk matrix (FIRM) that displays the financial (or economic) and political risk by intervals ranging across the matrix from “poor” to “good.”

- Each country can be positioned in its appropriate location on the matrix based on its political rating and financial rating.

# Incorporating Risk in Capital Budgeting (1 of 2)

**Adjustment of the discount rate:** Lower risk rating implies higher risk and higher discount rate.

**Adjustment of the estimated cash flows:** Adjust estimates for the probability that cash flows may not be realized. (Exhibits 16.4, 16.5, 16.6, and 16.7)

- **Accounting for uncertainty:** Could account for the uncertainty of country risk characteristics while also allowing for uncertainty in the other variables as well.



# Exhibit 16.4 Analysis of Project Based on a 20 Percent Withholding Tax: Spartan, Inc.

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
14. S\$ remitted by subsidiary		S\$6,000,000	S\$6,000,000	S\$7,600,000	S\$8,400,000
15. Withholding tax imposed on remitted funds (20%)		S\$1,200,000	S\$1,200,000	S\$1,520,000	S\$1,680,000
16. S\$ remitted after withholding taxes = (14) – (15)		S\$4,800,000	S\$4,800,000	S\$6,080,000	S\$6,720,000
17. Salvage value					S\$12,000,000
18. Exchange rate of S\$		\$0.50	\$0.50	\$0.50	\$0.50
19. Cash flows to parent = [(16) + (17)] × (18)		\$2,400,000	\$2,400,000	\$3,040,000	\$9,360,000
20. PV of parent cash flows (15% discount rate)		\$2,086,956	\$1,814,745	\$1,998,849	\$5,351,610
21. Initial investment by parent	\$10,000,000				
22. Cumulative NPV		-\$7,913,044	-\$6,098,299	-\$4,099,450	\$1,252,160

# Exhibit 16.5 Analysis of Project Based on a Reduced Salvage Value: Spartan, Inc.

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
14. S\$ remitted by subsidiary		S\$6,000,000	S\$6,000,000	S\$7,600,000	S\$8,400,000
15. Withholding tax imposed on remitted funds (10%)		S\$600,000	S\$600,000	S\$760,000	S\$840,000
16. S\$ remitted after withholding taxes = (14) – (15)		S\$5,400,000	S\$5,400,000	S\$6,840,000	S\$7,560,000
17. Salvage value					S\$7,000,000
18. Exchange rate of S\$		\$0.50	\$0.50	\$0.50	\$0.50
19. Cash flows to parent= [(16) + (17)] × (18)		\$2,700,000	\$2,700,000	\$3,420,000	\$7,280,000
20. PV of parent cash flows (15% discount rate)		\$2,347,826	\$2,041,588	\$2,248,706	\$4,162,364
21. Initial investment by parent	\$10,000,000				
22. Cumulative NPV		-\$7,652,174	-\$5,610,586	-\$3,361,880	\$800,484

# Exhibit 16.6 Analysis of Project Based on a 20 Percent Withholding Tax and a Reduced Salvage Value: Spartan, Inc.

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
14. S\$ remitted by subsidiary		S\$6,000,000	S\$6,000,000	S\$7,600,000	S\$8,400,000
15. Withholding tax imposed on remitted funds (20%)		S\$1,200,000	S\$1,200,000	S\$1,520,000	S\$1,680,000
16. S\$ remitted after withholding taxes = (14) – (15)		S\$4,800,000	S\$4,800,000	S\$6,080,000	S\$6,720,000
17. Salvage value					S\$7,000,000
18. Exchange rate of S\$		\$50	\$0.50	\$0.50	\$0.50
19. Cash flows to parent= [(16) + (17)] × (18)		\$2,400,000	\$2,400,000	\$3,040,000	\$6,860,000
20. PV of parent cash flows (15% discount rate)		\$2,086,956	\$1,814,745	\$1,998,849	\$3,922,227
21. Initial investment by parent	\$10,000,000				
22. Cumulative NPV		-\$7,913,044	-\$6,098,299	-\$4,099,450	-\$177,223

# Exhibit 16.7 Summary of Estimated NPVs across the Possible Scenarios: Spartan, Inc.

SCENARIO	WITHHOLDING TAX IMPOSED BY SINGAPORE GOVERNMENT	SALVAGE VALUE OF PROJECT	NPV	PROBABILITY
1	10%	S\$12,000,000	\$2,229,867	(70%)(60%) = 42%
2	20%	S\$12,000,000	\$1,252,160	(30%)(60%) = 18%
3	10%	S\$7,000,000	\$800,484	(70%)(40%) = 28%
4	20%	S\$7,000,000	-\$177,223	(30%)(40%) = 12%

$$E(\text{NPV}) = \$2,229,867(42\%) + \$1,252,160(18\%) + \$800,484(28\%) - \$177,223(12\%) = \$1,364,801$$

# Incorporating Risk in Capital Budgeting (2 of 2)

## Analysis of Existing Projects

- An MNC should not only consider country risk when assessing a new project but should also review the country risk periodically after a project has been implemented.
- If an MNC has a subsidiary in a country that experiences adverse political conditions, it may need to reassess the feasibility of maintaining this subsidiary.

# Preventing Host Government Takeovers

**Strategies to reduce exposure to a host government takeover include:**

- Use a short-term horizon
- Rely on unique supplies or technology
- Hire local labor
- Borrow local funds
- Purchase insurance
- Use project finance

# Summary (1 of 4)

- The characteristics used by MNCs to measure a country's political risk include the attitude of consumers toward purchasing locally produced goods, the host government's actions toward the MNC, the blockage of fund transfers, currency inconvertibility, war, bureaucratic problems, and corruption. These characteristics can increase the costs of international business.
- The characteristics used by MNCs to measure a country's financial risk are the country's gross domestic product, interest rate, exchange rate, and inflation rate.

# Summary (2 of 4)

- The techniques typically used by MNCs to measure the country risk are the checklist approach, the Delphi technique, quantitative analysis, and inspection visits. Since no one technique covers all aspects of country risk, a combination of these techniques may be used. An overall measure of country risk is essentially a weighted average of the political or financial factors that are perceived to constitute country risk. Each MNC has its own view as to the weights that should be assigned to each factor and its own view about each factor's importance as related to its business. Thus, the overall rating for a country varies among MNCs.



# Summary (3 of 4)

- Once country risk is measured, it can be incorporated into a capital budgeting analysis by adjustment of the discount rate. The adjustment is somewhat arbitrary, however, and may lead to improper decision making. An alternative method of incorporating country risk analysis into capital budgeting is to explicitly account for each factor that affects country risk. For each possible form of risk, the MNC can recalculate the foreign project's net present value under the condition that the event (such as blocked funds or increased taxes) occurs.

# Summary (4 of 4)

- MNCs can reduce the likelihood of a host government takeover of their subsidiary by using a short-term horizon for their operations whereby the investment in the subsidiary is limited. In addition, reliance on unique technology (that cannot be copied), local citizens for labor, and local financial institutions for financing may create some protection from the host government.