

M U N I

Country and Political Risks

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Country Risk

- the risk of investing or lending in a country, arising from possible changes in the business environment that may adversely affect operating profits or the value of assets in the country
- the risk of economic agents (including government) in a particular country will not fulfill their international financial obligations
- the risk that a foreign government will default on its bonds or other financial commitments
- the uncertainty associated with investing in a particular country, and more specifically the degree to which that uncertainty could lead to losses for investors

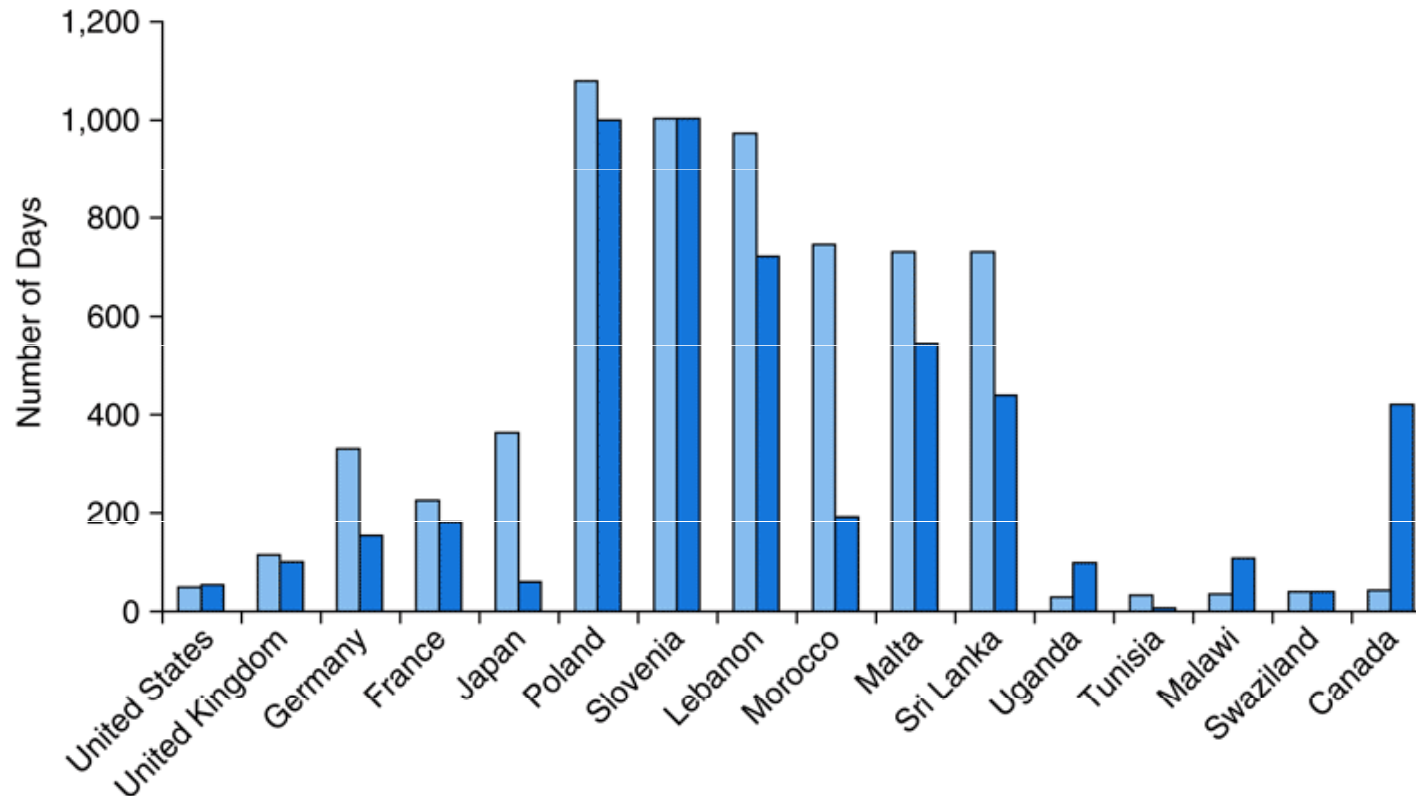
Financial and Economic Risk Factors

- 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

Political Risk Factors

- Expropriation/nationalization – worst-case scenario
- Contract repudiation (revoking) without compensation
 - Default on payments, cancelation of licenses
- 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 150 countries)
- Ethnic violence, political unrest, and terrorism
- Home-country restriction

Legal System Quality



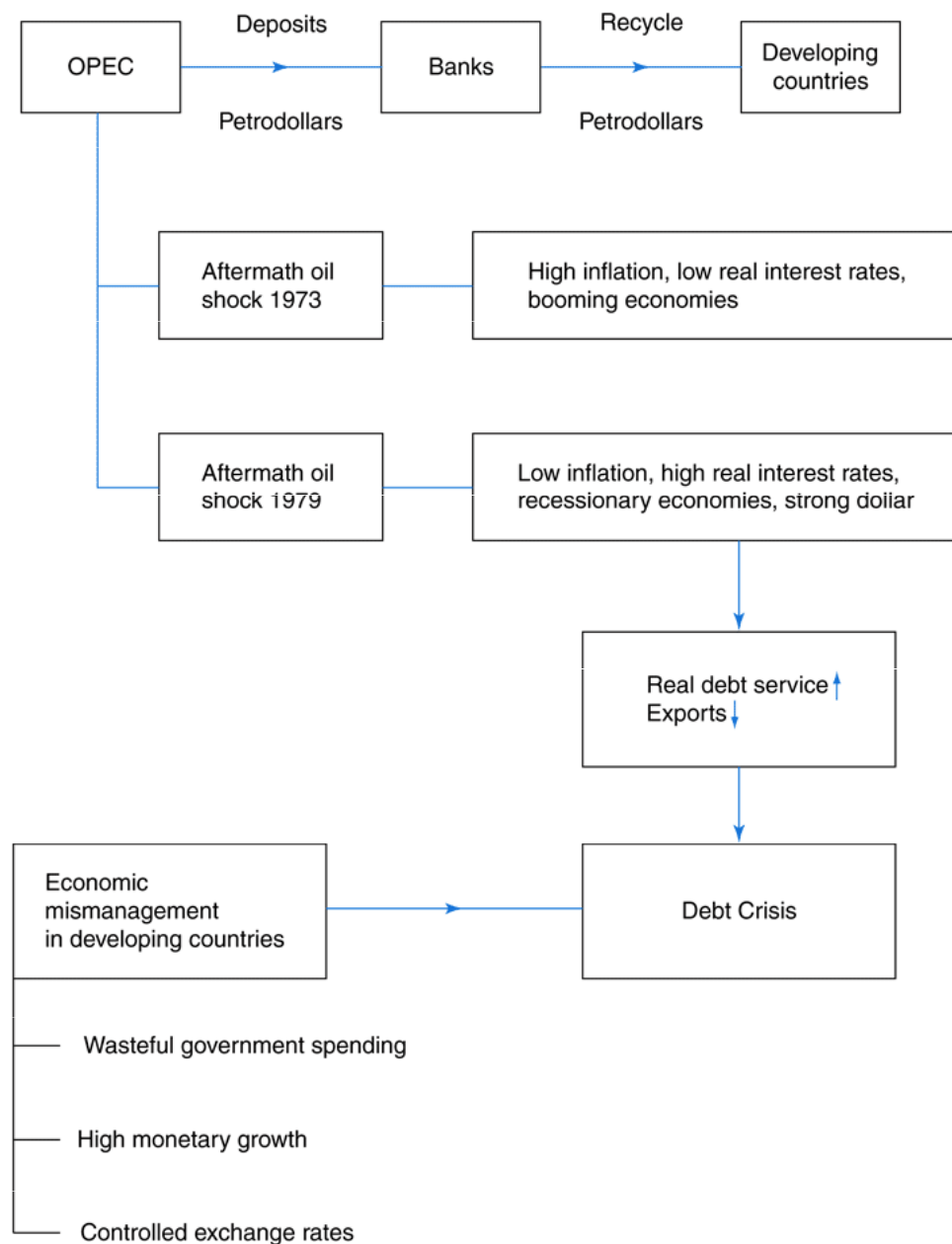
Notes: For each country, the column heights indicate numbers represent the number of days it takes to evict a tenant (on the left) or to collect a bounced check through the court system (on the right). We report numbers for the G5 countries and the five countries with the longest and shortest durations.

Source: Data from Table 6, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes and Andre Shleifer, 2003, "Courts" *The Quarterly Journal of Economics* 118, 453–517.

The Debt Crisis Origins (late 70s, early 80s)

- Origins of the debt crisis – oil prices went from \$2.50 to \$60.00 per barrel (in 2000 dollars)!
- OPEC extra income was deposited with international banks, which in turn loaned “petrodollars” to non-OPEC developing countries at floating interest rates
- Oil shock of late 1970s led to the change of macroeconomic situation in developed countries: high real interest rates, dollar appreciation
- Mexico announced in 1982 they could not repay their foreign debt; by the end of the year 24 other countries followed suit

The Debt Crisis Origins (late 70s, early 80s)



The Debt Crisis Resolution (late 70s, early 80s)

- First treated as a liquidity problem (IMF recommendations)
- Managing the debt crisis - **The Baker plan** (1985)
 - Implemented when IMF debt restructurings didn't work
 - Included new loans by banks/World Bank in exchange for agreeing to follow economic advice
- **“Debt overhang”** – the country with a huge debt burden has little incentive to implement economic reforms or stimulate investment because the resulting increase in income will simply be appropriated by the country's creditors
- **Debt and debt service-reducing operations**
 - Debt buyback (at a discount)
 - Debt-equity swap – MNC buys discounted debt to invest in country. This helps country and is a cheaper way for companies to invest in developing nations

The Debt Crisis Resolution (late 70s, early 80s)

- The **Brady Plan** (1989), Options available to the banks:
 - **Buybacks**: the debtor country was allowed to repurchase part of its debt at an agreed discount
 - **Discount bond exchange**: the loans could be exchanged for bonds at an agreed discount, with the bonds yielding a market rate of interest
 - **Par bond exchange**: the loans could be exchanged at their face value for bonds yielding a lower interest rate than the one on the original loans
 - **Conversion bonds combined with new money**: loans could be exchanged for bonds at par that yield a market rate; banks had to provide new money in a fixed proportion of the amount converted
- Official credit enhancements in the form of collateral provisions

Brady Bonds

Valued like other fixed-income securities but have special features

- **Principal collateral:** all par and discount bonds are collateralized by U.S. 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

Analyzing a Brady Bond

Year	Dollar Cash Flows	Dollar Spot Rates	Present Value of the Cash Flows
1	7	3.50	6.76
2	7	4.10	6.46
3	7	4.65	6.11
4	7	5.05	5.75
5	7	5.55	5.34
6	7	5.85	4.97
7	7	6.05	4.64
8	7	6.25	4.31
9	7	6.35	4.02
10	107	6.50	57.00

Notes: The bond is trading at a price of \$92 (per \$100 par value) and carries a coupon of 7%. The second column lists the cash flows accruing to the bondholder when Peru does not default on its obligation. The third column lists the dollar spot interest rates. The fourth column computes the present value of the future cash flows, using these spot interest rates.

Country Risk Analysis

- The PRS Group's ICRG Rating System
 - Financial and economic risk factors – assessing a country's ability to repay foreign debt; objective inputs
 - The political risk components – stability based on government; subjective inputs
 - Overall ratings
 - 1-49: Very risky
 - 50-59.9 High risk
 - 60-69.9 Moderate risk
 - 70-79.9 Low Risk
 - 80-100 Very low Risk

Political Risk Analysis

Societal Attribute:	Ethnic fractionalization	Frequency of government changes
Political Choice/Action:	Ethnic conflict	Left-wing government
Effective Outcome:	Civil strife damages	Labor regulations and nationalization
Loss to the MNC:	Damage to facilities	Increased costs Loss of total investment

Note: Political risk analysis uses measurable “risk attributes” (at top) to predict risk events for MNCs (bottom).

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
Maximum total points	100

Notes: XGS, exports of goods and services. From *International Country Risk Guide*, published by the PRS Group, Inc. Copyright © 2010. The PRS Group, Inc., www.prsgroup.com.

FINANCIAL RISK COMPONENTS

Component	Points (max.)
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

Maximum total points 50

ECONOMIC RISK COMPONENTS

Component	Points (max.)
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

Maximum total points 50

*XGS = exports of goods and services.

Political Risk Ratings

Country	Overall Country Risk	Political Risk	Quality of Institutions	Conflict	Democratic Tendencies	Policies	Investment Conditions / Corruption
United States	76.8	81.5	81.3	83.3	83.3	79.2	88.9
United Kingdom	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

Notes: The ratings are taken from ICRG's Web site (www.prsgroup.com/ICRG.aspx). The data are for July 2010. Subgroup ratings were computed as the sum of the points for the several subcategories and normalizing, so that 100 would mean a perfect score (no risk).

Country Credit Spreads

- Institutional Investor's Annual Rating
- Sovereign credit ratings – Moody's, S&P, Fitch

Why is sovereign credit risk different?

- Can't take a country to bankruptcy court
- Still, there are consequences
 - Assets may be seized
 - Country won't be able to borrow so easily going forward
 - International trade could be impacted
 - Default could make economic crises worse

Country and Political Risk Analysis (1)

- Country spreads and political risk probabilities
- An indication of default risk of a sovereign bond
- Moody's reported in 2008 an historical recovery rate of 35%
- Default probabilities with positive recovery values

$$\text{Stripped Price} = \sum_{j=1}^{10} \frac{CF(j)(1-p)^j}{[1+i(j)]^j}$$

where Stripped Price is the dollar price of the bond after subtracting the value of the collateral, $CF(j)$ is the promised dollar cash flow, $i(j)$ is the USD interest rate for period j and p is the default probability

Country and Political Risk Analysis (2)

- In order to adjust capital flows (preferred to adjusting discount rate) one must compute the political risk probabilities
- Information
 - Country spreads
 - Don't just add to discount rate
 - Uncover default probabilities
 - Political risk ratings
 - No evidence of predictive ability
 - Could be lagging (and not leading)
 - Political risk insurance premiums (if available)

Country and Currency Premiums Around the Mexican Currency Crisis

EXCHANGE RATE		3 MONTH INTEREST RATES			SPREADS		
Month	Peso/\$ Spot	U.S. T-bill	Mexico Cetes Tesobonos		Country Risk Premium	Currency Risk Premium	Default Probability
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
Jun-94	3.3900	4.240	17.000	7.000	2.731	9.828	0.6781
Jul-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
Sep-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	20.950	1.1710
Jan-95	5.7350	5.902	38.000	24.980	18.800	12.250	4.4890
Feb-95	5.8750	5.870	57.000	16.990	10.960	38.380	2.6670

Notes: The original source is Bloomberg, but the first five columns were taken from Froot (1995). The last three columns represent the authors' own computations. The risk premiums are annualized, but the default probability applies to a 3-month horizon, and is in percent.

Managing Political Risk (1)

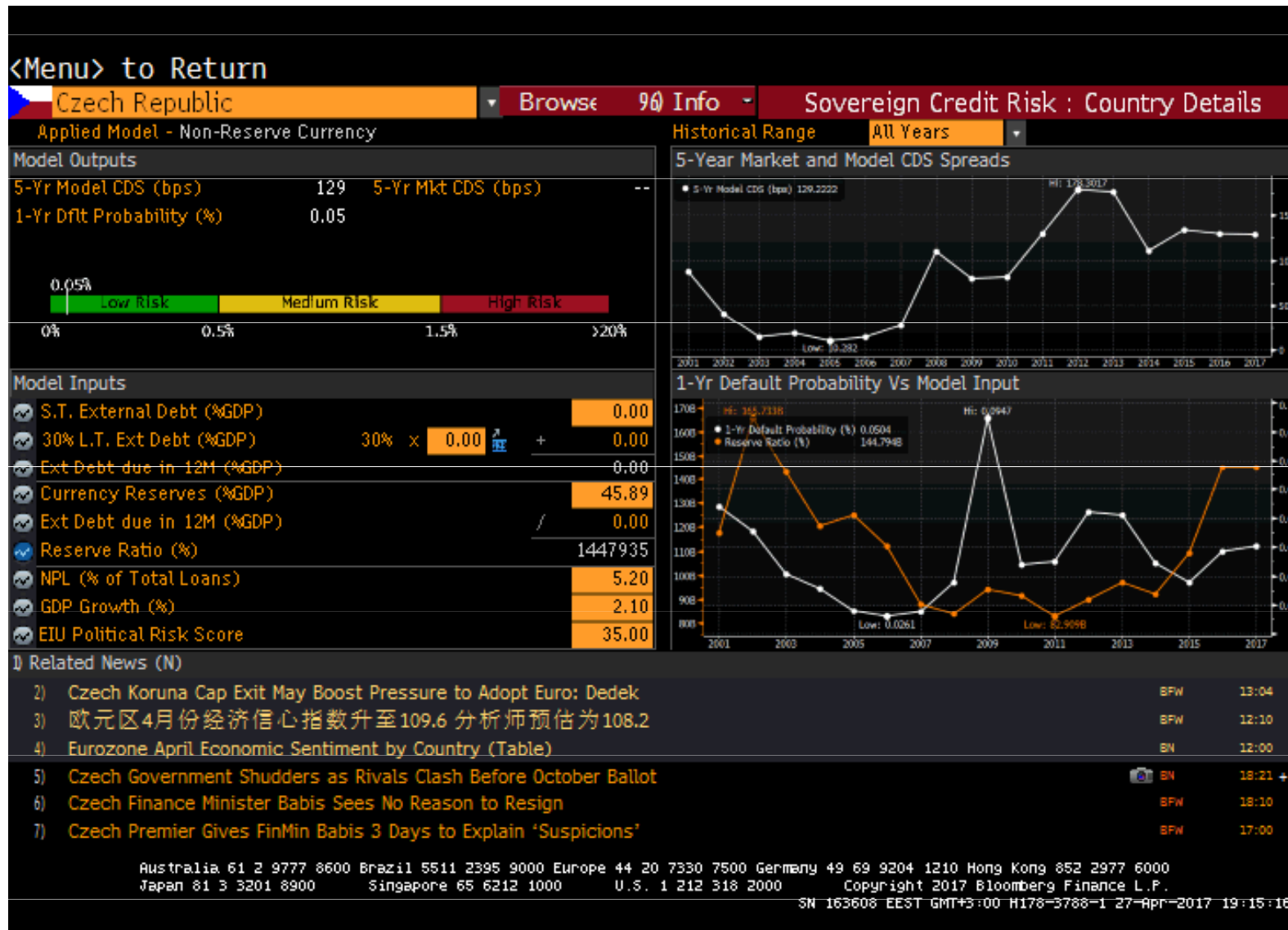
- What MNCs need to keep in mind when structuring an investment
 - Focus on the short term
 - Rely on unique supplies or technology (making government takeover more difficult)
 - Use local resources
 - Bargain with the government
 - Hire protection (i.e., bodyguards, or even military companies)

Managing Political Risk (2)

Insurance

- Coverage
 - Currency inconvertibility and non-transferability
 - Expropriation
 - War and political violence Political risk insurance for U.S. Companies
 - Overseas private investment corporation (OPIC)
- Political risk insurance in emerging and transitioning economy
 - Multilateral investment guarantee agency (MIGA)
- Public versus private insurance
 - Private - more important as time goes on
 - Public – may deter rogue nations

Country Risk Analysis in Bloomberg



SRSK
DDIS