# Appendix A:

### **CASES AND OUTCOMES**

KKM index of corruption, 1998. Scale inverted so that higher numbers indicate more corruption. N=181. Min=-2.58 (Switzerland). Max=1.58 (Dem. Rep. of Congo). Mean=0.009. SD=1.001.

Country	KKM	El Salvador	0.31	Macedonia	0.3	Spain	-1.58
Albania	0.92	Equatorial Guinea	0.8	Madagascar	0.8	Sri Lanka	0.24
Algeria	0.7	Eritrea	-0.46	Malawi	0.5	St Kitts & Nevis	0.04
Angola	1.05	Estonia	-0.49	Malaysia	-0.75	St Lucia	0.04
Argentina	0.17	Ethiopia	0.25	Maldives	0.55	St Vincent & Gren.	0.04
Armenia	0.71	Fiji	-0.2	Mali	0.58	Sudan	0.75
Australia	-2.2	Finland	-2.55	Malta	-0.66	Suriname	-0.06
Austria	-2.02	France	-1.75	Marshall Islands	0.55	Swaziland	0.19
Azerbaijan	1.01	Gabon	0.9	Mauritania	0.29	Sweden	-2.54
Bahamas	-0.66	Gambia	0.49	Mauritius	-0.2	Switzerland	-2.58
Bahrain	-0.4	Georgia	0.64	Mexico	0.46	Syria	0.58
Bangladesh	0.4	Germany	-2.2	Micronesia	0.29	Taiwan	-0.91
Belarus	0.6	Ghana	0.44	Moldova	0.51	Tajikistan	1.12
Belgium	-1.23	Greece	-0.85	Mongolia	0.28	Tanzania	0.95
Belize	0.29	Grenada	0.04	Morocco	0.1	Thailand	0.12
Benin	0.76	Guatemala	0.71	Mozambique	0.77	Togo	0.45
Bhutan	-0.46	Guinea	0.82	Myanmar	1.3	Tonga	0.29
Bolivia	0.45	Guinea-Bissau	0.57	Namibia	-0.24	Trinidad & Tobago	-0.13
Bosnia/Herzegovina	0.35	Guyana	0.26	Nepal	0.59	Tunisia	-0.11
Botswana	-0.53	Haiti	0.85	Netherlands	-2.48	Turkey	0.01
Brazil	-0.11	Honduras	0.72	New Zealand	-2.54	Turkmenistan	1.13
Brunei	-0.06	Hong Kong	-1.66	Nicaragua	0.7	Uganda	0.62
Bulgaria	0.5	Hungary	-0.69	Niger	0.88	Ukraine	0.89
Burkina Faso	0.51	Iceland	-2.32	Nigeria	1	United Arab Emirates	-0.78
Burundi	0.8	India	0.17	Norway	-2.34	United Kingdom	-2.32
Cambodia	1.27	Indonesia	0.99	Oman	-0.89	United States	-1.95
Cameroon	1.11	Iran	0.63	Pakistan	0.75	Uruguay	-0.42
Canada	-2.5	Iraq	1.36	Panama	0.28	Uzbekistan	0.98
Cape Verde	0.29	Ireland	-2.15	Papua New Guinea	0.7	Vanuatu	0.29
Central African Repub	0.55	Israel	-1.4	Paraguay	0.95	Venezuela	0.73
Chad	0.84	Italy	-1	Peru	0.19	Vietnam	0.62
Chile	-1.18	Jamaica	0.26	Philippines	0.35	Yemen	0.57
China	0.2	Japan	-1.32	Poland	-0.49	Yugoslavia	0.97
Colombia	0.59	Jordan	-0.2	Portugal	-1.55	Zambia	0.56
Comoros	0.8	Kazakhstan	0.86	Qatar	-0.81	Zimbabwe	0.13
Congo, Dem. Repub.	1.58	Kenya	0.92	Romania	0.38		
Congo, Republic	0.99	Kiribati	0.55	Russia	0.69		
Costa Rica	-0.74	Korea, North	0.55	Rwanda	0.55		
Cote d'Ivoire	0.35	Korea, South	-0.18	Sao Tome & Principe	0.8		
Croatia	0.33	Kuwait	-1.07	Saudi Arabia	-0.34		
Cuba	0.29	Kyrgyzstan	0.69	Senegal	0.45		
Cyprus	-1.38	Laos	0.7	Seychelles	0.29		
Czech Republic	-0.35	Latvia	0.1	Sierra Leone	0.72		
Denmark	-2.57	Lebanon	0.32	Singapore	-2.52		
Djibouti	0.8	Lesotho	-0.03	Slovakia	0.08		
Dominica	0.29	Liberia	1.43	Slovenia	-0.83		
Dominican Republic	0.53	Libya	0.91	Solomon Islands	0.55		
Ecuador	0.77	Lithuania	-0.07	Somalia	1.43		
Egypt	0.25	Luxembourg	-2.16	South Africa	-0.41		

## Appendix B:

#### VARIABLES

### Dependent variable

KKM index. Kaufmann, Kraay and Zoido-Lobaton (1999b: 9) write: "We use an unobserved components model which expresses the observed data in each cluster as a linear function of the unobserved common component of [corruption], plus a disturbance term capturing perception errors and/or sampling variation in each indicator. This model enables us to compute estimates of [corruption] for each country, as well as measures of the precision of these estimates. Formally, the estimate of [corruption] for a country produced by the unobserved components model is the mean of the distribution of unobserved [corruption] conditional on the observed data for that country. This conditional mean is simply a weighted average of appropriately-rescaled scores of each of the [corruption] indicators" (see also Kaufmann, Kraay and Zoido-Lobaton 1999a). The standard deviation of this conditional distribution provides an indicator of confidence in the accuracy of each point estimate; this is employed as a weighting mechanism in the regressions reported in Table 2. Data for 1998. Source: Kaufmann, Kraay and Mastruzzi (2003).

### Independent variables

<u>Budget</u>. Overall budget balance, including grants (% of GDP), averaged for 1970-95. Overall budget balance is current and capital revenue and official grants received, less total expenditure and lending minus repayments. Data are shown for central government only. Source: World Bank (1998).

<u>Central gov exp/GDP.</u> Total central government expenditures as % of GDP. Includes nonrepayable current and capital (development) expenditure. Does not include government lending or repayments to the government or government acquisition of equity for public policy purposes. Data for 1995. Source: World Bank (1998).

<u>Democracy.</u> Years democratic in the 20<sup>th</sup> century (1900-95). Scored as democratic where at least two consecutive years are 5-10 in the PolityIII database ("Democracy" variable), or — if not covered by PolityIII — where at least two consecutive years are 1-4 in the Freedom House database. Since the Freedom House database begins in the 1970s, earlier years for cases not covered in the PolityIII database are based loosely on the secondary literature (e.g., Derbyshire and Derbyshire 1996; CIA Factbook). Adjustments made to PolityIII scores for South Africa. Sources: Polity III from LaPorta et al. (1999), Gastil (various years).

<u>Energy imports, net</u>. Net energy imports as % of commercial energy use. Source: World Bank (1998). Source for Taiwan: Energy Commission, Ministry for Economic Affairs, Taiwan (<a href="http://www.moeaec.gov.tw/">http://www.moeaec.gov.tw/</a>).

English legal origin. 0 = all other, 1 = English legal origin. Source: La Porta et al. (1999).

<u>Financial regulation</u>. Index of Banking and Finance, comprised of five factors: 1) Government ownership of banks; 2) Restrictions on foreign banks; 3) Government influence over credit allocation; 4) Government regulations; 5) Freedom to offer all types of financial services, securities and insurance policies. Scale inverted so that higher scores indicate more regulation. Source: O'Driscoll, Feulner and O'Grady (2003). Data for 1998.

<u>Foreign direct investment</u>. Foreign direct investment, net inflows (BoP, % of GDP). Net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. Data are in current U.S. dollars. Averaged over 1970-95. Source: World Bank (1998).

GDP/cap, In. Real GDP/capita, averaged from 1970-95 (ln). Source: Source: World Bank, World Development Indicators, obtained from La Porta et al. (1999).

Government debt. Central government debt, total (% of GDP), averaged for 1970-95. Total debt is the entire stock of direct, government, fixed term contractual obligations to others outstanding at a particular date. It includes domestic debt (such as debt held by monetary authorities, deposit money banks, nonfinancial public enterprises, and households) and foreign debt (such as debt to international development institutions and foreign governments). It is the gross amount of government liabilities not reduced by the amount of government claims against others. Because debt is a stock rather than a flow, it is measured as of a given date, usually the last day of the fiscal year. Data are shown for central government only. Source: World Bank (1998).

<u>Govt employees.</u> Government employees as a share of total population. Includes "all government department offices, organizations and other bodies which are agencies or instruments of the central or local authorities whether accounted

for or financed in, ordinary or extraordinary budgets or extra-budgetary funds. They are not solely engaged in administration but also in defense and public order, in the promotion of economic growth and in the provision of education, health and cultural and social services." Source: Schiavo-Campo, Tommaso and Mukherjee (1997) from La Porta et al. (1999).

Govt intervention. A composite of a) government consumption as % of GNP, b) government ownership of business, and c) government economic output. Source: Johnson, Holmes and Kirkpatrick (1999). Data for mid-late 1990s.

<u>Imports/GDP, 1970-95.</u> Imports of goods and services (% of GDP). The value of all goods and other market services provided to the world. Included is the value of merchandise, freight, insurance, travel, and other nonfactor services. Factor and property income (formerly called factor services), such as investment income, interest, and labor income, is excluded. Source: World Bank (1998).

<u>Inflation.</u> Weighted, mean inflation rate, broken down into five categories scored as follows: 1) Very low: 3 percent or less; 2) Low: greater than 3 but less than or equal to 6 percent; 3) Moderate: greater than 6 but less than or equal to 12 percent; 4) High: greater than 12 but less than or equal to 20 percent, and 5) Very high: greater than 20 percent. Source: Johnson, Holmes and Kirkpatrick (1999). Recent years are weighted more heavily than earlier ones. Data for 1985-95.

Land area. Land area (1,000 ha). Source: World Bank (1998).

<u>Latitude</u>. The absolute value of the latitude of the country, scaled to take values from 0-1. Source: CIA Factbook, from La Porta et al. (1999).

<u>M2/reserves.</u> Money and quasi money (M2) to gross international reserves ratio, averaged for 1970-95. Money and quasi money comprise the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government. This definition is frequently called M2; it corresponds to lines 34 and 35 in the International Monetary Fund's (IMF) International Financial Statistics (IFS). Gross international reserves comprise holdings of monetary gold, special drawing rights, reserves of IMF members held by the IMF, and holdings of foreign exchange under the control of monetary authorities. The gold component of these reserves is valued at year-end (December 31) London prices. Source: World Bank (1998).

<u>Population, In.</u> Population, total (ln). Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship--except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. Source: World Bank (1998).

<u>Price regulation.</u> Index of Wages and Prices, comprised of five factors: 1) Minimum wage laws; 2) Freedom to set prices privately without government interference; 3) Government price controls; 4) Government subsidies to business that affect prices; 5) Government role in setting wages. Scale inverted so that higher scores indicate more regulation. Source: O'Driscoll, Feulner and O'Grady (2003). Data for 1998.

<u>Protestants.</u> % Protestant. Orthodox Christian coded as non-Protestant. Source: CIA Factbook 1999 (web), supplemented by figures from Johnstone (1993: 34) for African countries.

<u>Public consumption/GDP.</u> General government consumption as % of GDP. Includes all current expenditures for purchases of goods and services by all levels of government, excluding most government enterprises. Also includes capital expenditure on national defense and security. Source: World Bank (1998). Data for 1995.

Regulation. Index comprised of six factors: 1) Licensing requirements to operate a business; 2) Ease of obtaining a business license; 3) Corruption within the bureaucracy; 4) Labor regulations; 5) Environmental, consumer safety, and worker health regulations; and 6) Regulations that impose a burden on business. Source O'Driscoll, Feulner and O'Grady (2003). Data for 1998.

Regulatory quality. Policies friendly to the market, including (the absence or minimizing of) price controls, government intervention in the economy, wage-price controls, tariff and non-tariff barriers to trade, restrictions on foreign capital, excessive banking regulation, and import/export regulations. Source: Kaufmann, Kraay and Mastruzzi (2003). Data for 1998.

Socialist. 0 = all other, 1 = socialist (present or former). Source: La Porta et al. (1999).

State enterprise. State-owned enterprises as a share of the economy. Source: Gwartney, Lawson and Block (1996), from La Porta et al. (1999). Data for 1975-95.

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