

APPENDIX 1

AREA RATING TABLES, 1970–1997

AREA I: SIZE OF GOVERNMENT: CONSUMPTION, TRANSFERS, AND SUBSIDIES

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	8.3	8.4	5.0	8.1	9.1
Algeria	6.9	7.1	6.4	6.3	6.7	7.3	6.8
Argentina	8.4	7.8	7.6	7.7	8.5	7.9	7.8
Australia	7.3	7.2	7.0	6.7	7.0	6.6	6.6
Austria	6.5	5.7	5.2	5.0	5.1	4.6	4.7
Bahamas	9.8	8.8	8.9	8.9	8.9	8.5	NR
Bahrain	NR	NR	7.7	6.4	6.4	7.2	7.1
Bangladesh	NR	10.0	10.0	10.0	10.0	9.9	9.9
Barbados	8.6	8.7	8.6	8.2	8.2	8.3	6.3
Belgium	6.0	4.7	5.0	4.9	5.4	5.2	7.4
Belize	NR	7.8	8.4	7.9	8.4	8.7	8.0
Benin	9.0	9.1	9.3	8.0	8.7	8.5	8.7
Bolivia	9.9	8.9	8.7	9.1	8.9	8.7	8.0
Botswana	8.4	7.5	7.3	6.1	6.4	5.3	5.0
Brazil	7.1	6.5	7.7	7.9	6.8	6.4	6.7
Bulgaria	NR	NR	9.1	7.0	4.6	7.1	7.6
Burundi	9.0	8.8	9.2	9.3	9.0	8.9	8.8
Cameroon	8.2	9.1	9.3	9.3	8.6	9.3	8.9
Canada	5.8	6.6	5.9	5.6	5.7	5.5	6.0
C. African Rep.	6.8	7.8	8.3	8.0	8.1	8.3	9.0
Chad	6.5	6.9	6.1	8.9	9.4	9.5	9.5
Chile	7.0	7.4	7.4	6.9	7.8	7.9	7.8
China	8.9	8.8	6.8	7.1	7.2	7.3	7.3
Colombia	8.8	9.1	8.9	8.7	8.7	8.2	7.3
Congo, Dem. R.	8.0	9.1	9.6	9.2	9.2	9.9	9.1
Congo, Rep. Of	8.7	7.1	5.8	6.4	7.5	7.5	5.4
Costa Rica	9.0	8.3	7.7	7.6	7.7	7.4	7.9
Cote d'Ivoire	7.3	6.8	8.0	7.3	7.4	8.1	8.1
Croatia	NR	NR	NR	NR	NR	5.3	5.2
Cyprus	9.1	7.5	8.0	7.7	7.3	7.1	7.0
Czech Rep.	NR	5.9	5.8	5.3	2.7	3.9	4.2
Denmark	5.8	5.1	4.5	4.6	4.3	3.8	4.6
Dominican Rep.	9.0	9.4	9.4	9.4	9.7	9.7	9.2
Ecuador	8.5	7.5	8.0	8.6	9.1	8.8	8.1
Egypt	5.8	4.5	6.4	6.7	8.0	8.2	8.6
El Salvador	8.6	8.9	8.6	8.7	9.4	9.2	9.3
Estonia	NR	NR	NR	NR	7.1	6.0	5.9
Fiji	7.6	8.8	8.2	7.7	8.5	8.0	8.4
Finland	7.1	6.4	6.2	5.8	5.7	4.7	4.9
France	6.1	5.2	4.8	4.6	4.9	4.5	4.3
Gabon	4.4	6.9	4.7	6.6	8.4	8.0	5.9
Germany	6.4	5.7	5.7	5.5	5.7	5.2	5.2

	1970	1975	1980	1985	1990	1995	1997
Ghana	8.8	8.7	9.1	9.4	9.2	8.8	8.7
Greece	9.2	8.8	8.4	6.5	6.1	6.4	6.7
Guatemala	9.5	9.6	9.5	9.6	9.6	9.9	9.9
Guinea-Bissau	7.0	6.8	NR	8.1	8.9	9.7	9.5
Guyana	6.8	5.4	5.2	6.6	7.9	7.0	6.5
Haiti	8.9	9.1	8.8	8.4	9.4	9.6	9.6
Honduras	9.2	9.2	8.0	8.8	8.6	8.4	7.2
Hong Kong	9.0	9.4	9.5	9.4	9.3	9.2	9.2
Hungary	8.1	8.1	8.2	4.7	5.2	5.8	6.6
Iceland	7.7	7.1	7.0	6.9	6.9	6.9	7.0
India	8.9	8.9	8.7	8.3	8.2	8.3	8.0
Indonesia	9.3	9.2	8.5	8.6	9.0	9.3	9.4
Iran	9.0	6.0	6.9	8.3	8.5	8.3	8.5
Ireland	7.2	6.0	6.1	5.8	6.3	6.0	6.0
Israel	5.6	4.2	3.7	4.3	5.2	5.0	4.7
Italy	6.7	6.4	5.8	4.6	4.9	4.7	5.7
Jamaica	7.9	7.5	6.4	8.8	8.5	8.3	6.7
Japan	9.1	8.2	7.9	7.7	7.7	7.5	8.3
Jordan	NR	5.4	7.2	7.7	7.7	7.6	7.6
Kenya	8.3	8.2	7.9	7.7	8.0	8.6	7.3
Kuwait	6.1	4.6	5.9	5.0	5.4	5.1	6.0
Latvia	NR	NR	NR	NR	8.3	5.6	5.7
Lithuania	NR	NR	NR	NR	6.2	7.0	7.0
Luxembourg	6.8	7.8	7.6	7.7	5.2	5.3	5.1
Madagascar	8.6	8.8	8.6	9.0	9.5	9.7	9.6
Malawi	8.6	8.8	8.2	8.3	8.6	7.2	8.5
Malaysia	7.5	7.4	7.6	7.9	8.2	8.0	8.1
Mali	8.8	9.3	9.2	9.2	9.1	8.6	8.3
Malta	6.8	6.6	7.0	6.5	6.3	6.4	5.9
Mauritius	8.6	8.2	8.2	8.4	8.5	8.4	8.3
Mexico	9.4	8.9	8.7	8.6	9.1	8.2	8.4
Morocco	8.3	7.9	8.0	8.1	8.4	8.2	7.0
Myanmar	NR	NR	NR	NR	NR	NR	NR
Namibia	NR	NR	5.6	4.3	6.8	4.2	4.1
Nepal	NR	9.3	9.5	8.8	9.1	8.9	9.0
Netherlands	6.1	5.0	4.4	4.3	4.8	4.7	5.1
New Zealand	7.7	5.9	5.4	5.8	4.8	7.0	7.1
Nicaragua	8.8	9.2	8.2	5.7	5.6	8.5	8.4
Niger	9.2	8.8	9.0	8.8	8.3	8.2	8.2
Nigeria	9.5	8.6	7.6	8.9	6.9	8.3	8.8
Norway	5.5	5.1	4.8	5.0	4.0	4.8	5.1
Oman	6.4	4.8	5.8	5.9	4.7	7.0	7.2
Pakistan	9.4	9.1	9.2	9.2	8.3	8.9	8.3
Panama	NR	7.6	7.2	7.5	7.3	7.5	7.4

	1970	1975	1980	1985	1990	1995	1997
Papua New Guinea	4.9	3.8	5.7	7.8	7.2	7.2	4.5
Paraguay	9.3	9.5	9.5	9.5	9.6	9.0	7.9
Peru	8.8	8.9	8.8	9.1	9.1	9.0	8.7
Philippines	9.3	9.0	9.2	9.6	9.2	9.2	8.1
Poland	NR	8.0	8.6	5.6	4.1	5.0	5.3
Portugal	7.8	7.1	6.7	6.2	6.6	6.7	6.8
Romania	NR	NR	7.8	8.8	6.4	7.0	7.4
Russia	NR	3.5	3.7	3.5	3.7	6.9	6.5
Rwanda	9.2	8.8	9.2	8.6	9.0	9.5	9.3
Senegal	8.1	8.7	8.1	7.8	7.9	8.3	8.7
Sierra Leone	NR	9.2	9.3	9.6	9.2	8.6	9.2
Singapore	8.9	8.9	8.9	8.0	8.5	8.7	8.6
Slovakia	NR	5.9	5.8	5.3	2.7	5.5	4.8
Slovenia	NR	NR	NR	NR	6.1	3.6	3.6
Somalia	8.8	6.8	8.3	8.3	NR	NR	NR
South Africa	8.6	8.2	8.1	7.6	7.5	7.5	7.5
South Korea	9.3	9.0	8.8	8.8	8.6	8.6	8.4
Spain	8.4	7.9	7.3	6.5	6.5	6.0	7.0
Sri Lanka	8.1	8.5	8.5	8.7	8.6	8.4	8.7
Sweden	5.5	4.2	3.8	3.7	3.2	2.8	3.1
Switzerland	8.1	7.7	7.1	7.1	6.5	6.1	6.3
Syria	8.5	7.5	6.7	5.9	7.7	7.9	7.5
Taiwan	NR	8.2	8.0	7.8	7.6	7.8	7.3
Tanzania	10.0	8.7	9.1	8.1	7.7	7.9	8.3
Thailand	9.1	9.2	8.9	8.7	9.0	8.9	8.9
Togo	6.9	6.0	5.5	8.9	7.8	8.3	8.7
Trinidad & Tobago	7.5	6.7	7.8	5.7	7.6	8.1	8.6
Tunisia	8.0	8.4	8.0	7.5	7.4	7.5	7.6
Turkey	8.6	8.2	8.2	8.0	8.7	8.0	7.3
Uganda	NR	NR	NR	8.0	9.5	8.9	8.9
Ukraine	NR	NR	6.4	6.2	6.7	5.7	6.0
United Arab Emirates	NR	4.5	3.7	3.1	7.6	7.9	6.1
United Kingdom	6.7	6.0	5.9	5.7	6.2	5.8	5.9
United States	6.7	6.9	7.1	6.8	6.8	6.8	6.9
Uruguay	7.6	7.4	8.0	7.5	7.3	6.8	6.4
Venezuela	8.7	8.4	8.6	8.5	8.6	8.8	8.4
Zambia	7.4	6.4	6.4	7.4	7.7	8.7	9.2
Zimbabwe	8.4	7.9	7.0	6.9	7.5	6.9	7.5

**AREA II: STRUCTURE OF THE ECONOMY AND USE OF MARKETS—PRODUCTION
AND ALLOCATION VIA POLITICAL MANDATES RATHER THAN
PRIVATE ENTERPRISES AND MARKETS**

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	NR	NR	0.0	2.1	3.0
Algeria	NR	NR	NR	NR	1.0	1.0	1.9
Argentina	NR	3.6	4.4	2.9	3.8	8.4	9.5
Australia	NR	5.0	5.0	5.0	5.6	6.5	6.3
Austria	NR	3.1	2.4	2.4	3.8	4.6	4.9
Bahamas	NR	8.0	7.1	6.1	5.4	6.7	6.7
Bahrain	NR	6.1	7.1	7.1	6.0	6.0	6.0
Bangladesh	NR	NR	2.7	2.7	NR	2.0	2.0
Barbados	NR	4.7	4.7	4.7	5.9	6.1	6.1
Belgium	NR	4.1	3.3	3.3	3.4	4.8	4.8
Belize	NR	NR	NR	4.8	2.5	4.8	4.7
Benin	NR	NR	NR	NR	NR	1.9	1.9
Bolivia	NR	NR	2.5	4.4	4.8	6.1	7.1
Botswana	NR	2.3	2.3	3.1	4.3	5.9	6.2
Brazil	5.0	4.2	2.9	2.7	4.5	6.2	7.2
Bulgaria	NR	NR	NR	NR	0.0	2.2	3.3
Burundi	NR	NR	NR	NR	1.2	2.1	3.0
Cameroon	NR	NR	NR	3.1	2.4	2.2	2.2
Canada	4.3	5.0	5.0	5.0	6.5	6.2	7.5
C. African Rep.	NR	NR	NR	NR	0.0	0.0	0.0
Chad	NR	NR	NR	NR	1.8	1.8	1.8
Chile	NR	2.1	3.1	2.7	5.6	7.1	6.8
China	NR	NR	NR	2.3	1.9	2.5	3.2
Colombia	NR	4.2	1.7	2.9	4.7	5.1	4.5
Congo, Dem. R.	NR	2.1	1.7	1.7	2.5	2.5	3.0
Congo, Rep. Of	NR	NR	NR	NR	1.9	1.6	1.6
Costa Rica	NR	6.2	5.2	4.4	7.4	7.4	8.1
Cote d'Ivoire	NR	NR	3.2	2.5	1.4	2.5	3.0
Croatia	NR	NR	NR	NR	NR	1.2	2.6
Cyprus	NR	NR	4.3	4.3	2.6	4.3	4.3
Czech Rep.	NR	NR	NR	NR	1.0	4.8	5.2
Denmark	NR	3.7	3.3	3.3	4.2	5.8	6.1
Dominican Rep.	NR	2.4	3.3	3.3	3.5	6.4	6.4
Ecuador	NR	3.8	3.8	2.7	2.8	5.2	5.2
Egypt	NR	NR	1.0	1.7	1.2	2.1	2.5
El Salvador	NR	NR	4.5	4.1	4.5	6.6	7.6
Estonia	NR	NR	NR	NR	NR	4.9	5.6
Fiji	NR	4.4	3.1	3.4	4.3	5.3	5.3
Finland	NR	4.6	4.2	4.2	4.2	5.7	5.4
France	NR	4.2	3.5	2.7	4.3	5.3	5.5

	1970	1975	1980	1985	1990	1995	1997
Gabon	NR	NR	NR	NR	2.4	3.1	2.9
Germany	5.1	5.1	4.7	4.3	5.8	6.0	5.2
Ghana	1.3	1.3	1.7	1.7	2.0	5.3	5.9
Greece	NR	3.5	2.1	1.4	1.7	4.2	4.6
Guatemala	NR	8.6	8.3	5.8	6.4	6.6	7.3
Guinea-Bissau	NR	NR	NR	NR	2.1	4.8	4.8
Guyana	NR	NR	NR	NR	NR	NR	4.0
Haiti	NR	NR	NR	NR	5.8	2.9	NR
Honduras	NR	7.7	7.3	4.8	4.6	5.9	6.2
Hong Kong	10.0	10.0	10.0	9.6	9.7	9.7	9.7
Hungary	NR	NR	NR	NR	2.8	4.9	4.9
Iceland	NR	NR	5.3	5.6	6.4	6.2	6.2
India	2.3	1.3	1.7	1.3	2.4	4.1	3.5
Indonesia	NR	3.9	2.5	3.6	5.1	4.0	4.0
Iran	NR	5.0	NR	1.0	1.3	2.3	2.3
Ireland	NR	4.3	5.1	4.8	6.7	7.6	7.9
Israel	NR	NR	1.4	2.1	1.7	3.3	3.3
Italy	NR	3.8	2.1	2.1	3.5	4.2	4.2
Jamaica	NR	3.1	2.3	3.7	5.9	6.2	6.2
Japan	NR	5.6	5.3	5.6	6.0	5.0	5.0
Jordan	NR	NR	NR	NR	2.8	2.1	2.1
Kenya	3.3	2.3	2.7	2.3	3.0	3.6	5.3
Kuwait	NR	NR	NR	NR	NR	4.4	5.8
Latvia	NR	NR	NR	NR	NR	3.8	5.8
Lithuania	NR	NR	NR	NR	NR	3.4	4.7
Luxembourg	NR	NR	NR	NR	4.4	5.9	6.6
Madagascar	NR	NR	NR	NR	0.1	0.1	0.1
Malawi	NR	2.3	2.8	2.5	1.6	4.0	3.5
Malaysia	NR	4.8	4.0	5.5	5.4	5.3	5.5
Mali	NR	NR	NR	NR	1.7	3.5	3.5
Malta	NR	NR	3.3	4.3	2.8	5.3	5.3
Mauritius	NR	NR	5.4	6.9	5.9	6.2	6.9
Mexico	NR	3.5	3.1	3.1	3.5	5.8	6.5
Morocco	NR	3.1	0.9	0.1	0.1	2.2	2.4
Myanmar	NR	NR	NR	NR	2.0	2.0	2.0
Namibia	NR	NR	NR	NR	NR	NR	5.9
Nepal	NR	NR	NR	NR	2.9	2.9	2.9
Netherlands	NR	3.8	3.6	3.1	4.4	5.1	6.0
New Zealand	NR	4.4	4.0	3.3	7.9	9.2	9.2
Nicaragua	NR	7.4	2.5	1.9	0.0	4.2	4.2
Niger	NR	NR	NR	NR	0.0	3.5	3.5
Nigeria	NR	3.3	1.3	2.5	1.4	2.6	4.5
Norway	NR	2.1	2.1	2.5	3.8	5.2	5.5
Oman	NR	6.1	6.1	6.1	5.4	5.4	5.4

	1970	1975	1980	1985	1990	1995	1997
Pakistan	NR	0.4	2.1	1.7	3.4	3.9	4.6
Panama	NR	4.8	4.4	4.4	4.3	6.4	6.4
Pap. New Guinea	NR	NR	NR	NR	NR	NR	NR
Paraguay	NR	NR	NR	6.0	5.6	6.8	6.8
Peru	NR	3.5	2.7	2.0	3.6	6.6	7.3
Philippines	NR	4.5	3.7	5.6	5.9	6.3	6.9
Poland	NR	NR	NR	NR	0.9	4.1	3.4
Portugal	2.1	1.0	1.0	2.0	3.9	5.2	5.5
Romania	NR	NR	NR	NR	0.0	2.3	2.3
Russia	NR	0.0	0.0	0.0	0.0	2.8	3.5
Rwanda	NR	NR	NR	NR	2.9	2.9	2.0
Senegal	NR	NR	NR	2.3	3.0	2.6	3.3
Sierra Leone	NR	NR	NR	NR	2.1	3.9	3.9
Singapore	5.4	4.9	4.9	6.0	7.5	7.5	7.5
Slovakia	NR	NR	NR	NR	1.0	2.4	2.6
Slovenia	NR	NR	NR	NR	NR	3.0	3.0
Somalia	NR	NR	NR	NR	1.0	NR	NR
South Africa	NR	1.8	1.7	2.5	3.9	5.9	5.9
South Korea	NR	4.2	3.4	4.2	3.0	3.2	3.5
Spain	NR	4.6	2.5	2.5	4.3	3.7	4.3
Sri Lanka	NR	NR	2.3	2.3	4.7	5.3	5.3
Sweden	2.1	2.7	2.4	3.3	4.2	5.2	4.8
Switzerland	NR	7.2	7.2	7.2	7.4	7.1	7.1
Syria	NR	NR	NR	NR	0.0	0.0	0.0
Taiwan	NR	2.1	2.1	2.1	3.9	4.4	3.1
Tanzania	1.0	1.3	NR	0.0	0.8	3.3	3.7
Thailand	NR	4.1	3.1	2.7	4.6	5.4	6.6
Togo	NR	NR	NR	NR	0.0	0.9	0.9
Trinidad & Tob.	NR	NR	NR	3.8	5.3	5.4	5.9
Tunisia	NR	NR	1.1	1.1	3.0	3.9	3.9
Turkey	NR	0.4	0.0	0.8	4.4	4.7	5.4
Uganda	NR	NR	NR	2.3	2.3	4.9	5.5
Ukraine	NR	NR	NR	NR	NR	1.8	2.7
Unit. Arab Em.	NR	NR	NR	NR	NR	NR	8.0
United Kingdom	NR	2.3	3.3	5.0	7.4	7.8	8.0
United States	3.4	4.8	5.3	6.8	7.9	8.3	8.3
Uruguay	NR	6.9	8.0	8.0	6.7	7.4	7.4
Venezuela	NR	5.7	3.6	2.8	3.1	1.8	3.7
Zambia	NR	1.3	1.3	1.3	0.9	3.3	3.6
Zimbabwe	NR	NR	3.0	2.3	1.8	3.9	4.1

AREA III: MONETARY POLICY AND PRICE STABILITY—PROTECTION OF MONEY AS A STORE OF VALUE AND MEDIUM OF EXCHANGE

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	NR	9.8	9.8	2.7	2.5
Algeria	8.5	6.1	6.5	8.2	6.0	5.2	7.6
Argentina	6.7	0.0	0.0	0.0	0.0	4.0	8.9
Australia	9.4	7.9	8.6	9.1	8.7	9.1	9.2
Austria	9.5	8.9	9.5	9.5	9.4	9.3	9.5
Bahamas	9.0	8.7	8.2	8.6	9.1	9.3	9.6
Bahrain	9.0	7.0	7.5	8.2	8.3	9.4	9.0
Bangladesh	8.5	2.6	6.0	8.0	9.2	8.5	9.0
Barbados	8.8	7.4	6.7	8.9	8.7	9.5	8.8
Belgium	9.5	8.3	9.4	9.4	9.5	9.6	9.7
Belize	8.7	6.6	8.3	8.8	9.1	9.5	9.6
Benin	9.0	6.9	8.4	8.1	9.0	6.9	7.9
Bolivia	9.2	5.1	3.5	0.0	3.1	6.8	7.9
Botswana	9.6	6.6	7.1	7.0	7.4	8.8	8.2
Brazil	6.2	4.8	1.7	0.0	0.0	0.0	2.8
Bulgaria	NR	NR	NR	9.7	5.9	0.0	0.0
Burundi	8.9	7.2	6.5	8.2	8.6	7.5	6.6
Cameroon	7.7	8.6	7.2	8.5	9.4	7.8	8.5
Canada	9.1	8.4	8.9	8.6	9.4	9.4	9.3
C. African Rep.	8.4	7.4	6.5	5.8	9.5	6.8	7.6
Chad	9.2	8.4	8.4	7.0	7.7	6.9	7.5
Chile	3.4	0.0	1.4	6.0	6.3	7.6	8.4
China	8.7	9.8	8.2	8.0	8.6	7.0	8.6
Colombia	8.1	6.7	6.0	7.0	5.9	6.6	7.0
Congo, Dem. R.	5.1	7.5	0.5	1.6	0.0	0.0	0.0
Congo, Rep. Of	8.7	8.8	7.1	8.1	7.8	7.7	7.5
Costa Rica	8.9	6.1	7.1	3.3	7.4	6.9	7.5
Cote d'Ivoire	9.1	7.8	6.2	8.9	9.2	6.6	6.8
Croatia	NR	NR	NR	NR	NR	2.8	3.6
Cyprus	NR	7.9	7.6	8.9	9.4	9.6	9.6
Czech Rep.	NR	NR	NR	9.4	8.8	6.3	8.1
Denmark	9.0	8.2	8.9	8.6	9.2	9.6	9.5
Dominican Rep.	9.6	7.4	8.2	3.4	2.0	5.7	8.1
Ecuador	8.3	6.4	7.2	5.2	1.7	4.7	5.8
Egypt	9.6	7.7	6.6	8.4	7.4	8.4	9.1
El Salvador	9.3	7.9	7.0	7.3	6.7	8.2	9.0
Estonia	NR	NR	NR	8.8	4.2	1.4	3.4
Fiji	8.6	6.3	8.0	8.7	8.4	9.3	9.2
Finland	9.0	7.1	8.7	8.7	9.0	7.7	9.3
France	9.4	8.2	8.4	8.8	9.5	9.8	9.7
Gabon	9.6	4.8	5.9	8.2	7.3	7.2	6.9

	1970	1975	1980	1985	1990	1995	1997
Germany	9.3	9.1	9.2	9.5	9.0	9.4	9.5
Ghana	8.9	5.2	1.5	2.4	5.4	3.6	5.4
Greece	9.4	7.4	7.6	7.4	7.3	8.0	8.5
Guatemala	9.4	7.4	8.1	7.4	5.5	7.2	7.8
Guinea-Bissau	NR	8.7	8.1	2.9	1.2	1.8	3.0
Guyana	9.3	5.9	7.7	6.9	2.6	4.1	8.2
Haiti	9.0	7.9	6.5	8.3	7.8	5.0	7.0
Honduras	9.3	8.4	7.9	9.4	7.7	6.1	6.4
Hong Kong	8.3	8.9	8.0	9.1	8.7	9.1	9.2
Hungary	9.2	9.1	8.6	9.1	7.5	6.4	7.4
Iceland	7.6	4.0	3.1	2.7	5.7	9.1	9.3
India	8.9	8.4	8.1	8.6	8.6	8.4	8.7
Indonesia	2.5	5.0	5.0	8.7	8.2	8.7	8.2
Iran	9.6	7.3	5.9	7.5	8.2	4.7	6.9
Ireland	8.8	7.5	7.7	8.8	9.0	9.5	9.3
Israel	8.5	5.1	0.7	0.0	2.2	8.1	8.4
Italy	8.4	7.3	7.1	8.3	8.9	9.3	9.5
Jamaica	8.7	5.8	6.9	5.3	6.1	3.5	6.9
Japan	9.1	8.0	9.2	9.7	9.6	9.5	9.5
Jordan	NR	7.5	7.4	8.8	8.2	9.5	9.5
Kenya	7.9	7.6	8.1	9.0	8.4	7.2	7.5
Kuwait	9.8	5.2	3.2	8.1	7.1	8.8	9.0
Latvia	NR	NR	NR	NR	7.1	2.3	5.3
Lithuania	NR	NR	NR	NR	NR	0.8	3.8
Luxembourg	7.5	8.5	8.5	9.4	9.1	9.4	9.4
Madagascar	8.8	8.3	7.6	7.6	7.3	3.3	6.0
Malawi	8.4	8.0	8.1	8.5	7.0	1.1	3.8
Malaysia	9.3	8.1	8.5	9.5	8.7	8.6	8.9
Mali	8.3	6.5	7.9	8.6	9.3	6.8	7.3
Malta	9.1	8.9	8.4	9.4	9.7	9.5	9.5
Mauritius	9.6	4.9	6.4	9.2	8.0	9.2	9.3
Mexico	8.8	7.4	6.5	1.0	1.5	4.4	6.3
Morocco	9.2	7.9	8.2	9.0	8.4	8.8	9.3
Myanmar	8.8	4.9	9.1	9.6	5.2	5.8	6.0
Namibia	NR	NR	NR	6.0	8.2	7.6	7.7
Nepal	8.3	5.9	7.8	8.2	8.1	8.0	8.7
Netherlands	9.2	8.7	9.2	9.3	9.4	9.6	9.4
New Zealand	8.3	7.7	8.3	8.0	6.4	9.5	9.6
Nicaragua	9.2	7.9	4.0	0.0	0.0	2.7	6.7
Niger	8.6	6.4	6.2	8.5	9.5	7.6	8.1
Nigeria	3.4	4.5	7.3	8.4	5.5	1.1	5.5
Norway	8.3	8.4	8.7	8.4	8.3	9.2	9.5
Oman	8.2	4.8	3.3	8.9	6.7	8.9	8.5
Pakistan	9.2	6.7	8.1	8.9	8.6	8.2	8.4

	1970	1975	1980	1985	1990	1995	1997
Panama	9.5	8.5	5.6	9.6	9.8	9.0	9.2
Pap. New Guinea	9.2	8.5	8.3	8.8	8.8	7.1	8.0
Paraguay	9.3	7.6	6.9	6.7	4.9	7.1	8.0
Peru	7.7	6.4	1.7	0.0	0.0	2.6	5.0
Philippines	9.0	7.3	7.9	6.1	5.3	8.2	8.5
Poland	NR	9.3	8.6	4.3	0.0	4.7	6.0
Portugal	9.5	7.4	7.4	7.4	7.6	8.7	9.1
Romania	NR	NR	8.8	9.3	7.8	1.0	0.0
Russia	NR	8.9	8.6	8.7	7.9	0.0	2.3
Rwanda	6.0	2.5	8.2	8.9	8.2	2.9	5.2
Senegal	9.4	7.6	8.1	8.8	9.5	7.7	8.0
Sierra Leone	9.3	7.5	7.8	0.5	0.0	2.5	6.4
Singapore	9.7	8.8	8.5	9.5	9.0	9.5	9.7
Slovakia	NR	NR	NR	9.4	8.8	7.3	8.6
Slovenia	NR	NR	NR	NR	NR	2.5	6.4
Somalia	8.6	7.3	1.7	3.9	0.0	NR	NR
South Africa	9.4	8.2	7.0	7.1	7.7	8.1	8.1
South Korea	6.6	5.9	6.7	8.6	8.6	8.7	9.6
Spain	9.1	7.3	7.8	8.7	8.2	9.4	9.5
Sri Lanka	9.0	8.3	6.8	8.3	7.2	8.7	8.9
Sweden	9.2	8.2	8.4	9.0	8.8	9.4	9.6
Switzerland	9.5	9.1	9.3	9.5	9.6	9.5	9.3
Syria	8.8	6.7	7.3	8.0	7.3	8.5	8.4
Taiwan	9.0	6.7	7.2	9.1	8.7	9.7	9.9
Tanzania	9.3	6.5	5.5	6.5	6.1	5.0	6.7
Thailand	9.1	8.3	8.2	9.3	8.7	9.1	9.3
Togo	9.1	6.8	6.7	8.7	9.4	6.7	6.7
Trinidad & Tob.	9.1	5.3	5.4	7.8	8.1	8.0	8.5
Tunisia	8.9	7.8	8.2	8.4	9.3	9.3	9.3
Turkey	5.5	6.4	0.6	3.1	1.1	0.9	1.6
Uganda	NR	4.7	1.6	0.0	0.4	5.4	7.5
Ukraine	NR	NR	NR	NR	NR	0.0	2.2
Unit. Arab Em.	NR	NR	7.2	9.0	9.4	NR	NR
United Kingdom	9.0	6.7	7.8	8.5	7.5	9.3	9.1
United States	9.4	8.9	8.9	9.1	9.4	9.6	9.8
Uruguay	3.6	0.0	1.7	1.5	1.6	0.9	5.3
Venezuela	9.6	5.9	6.4	7.7	2.6	2.2	0.8
Zambia	6.4	6.8	8.1	4.3	0.1	0.9	1.7
Zimbabwe	7.6	8.5	8.4	8.3	7.5	6.2	5.0

	1970	1975	1980	1985	1990	1995	1997
Pap. New Guinea	NR	0.0	0.0	4.6	4.3	4.3	4.8
Paraguay	8.3	8.7	9.3	5.0	7.4	8.7	8.9
Peru	3.6	0.0	3.2	0.0	5.9	10.0	10.0
Philippines	0.0	3.7	4.7	4.3	4.3	10.0	9.5
Poland	2.5	2.5	2.5	2.5	9.1	10.0	7.5
Portugal	5.0	0.8	4.8	4.8	4.7	10.0	10.0
Romania	0.0	0.0	0.0	0.0	2.5	4.7	4.4
Russia	0.0	0.0	0.0	0.0	0.0	7.5	7.5
Rwanda	2.4	0.5	0.0	0.1	2.2	7.2	2.5
Senegal	4.8	4.8	4.8	4.9	4.6	4.9	4.8
Sierra Leone	9.6	0.0	0.0	0.0	0.0	7.3	2.5
Singapore	4.9	5.0	5.0	7.5	10.0	10.0	10.0
Slovakia	0.0	0.0	0.0	0.0	0.0	7.5	6.4
Slovenia	NR	NR	NR	NR	2.5	7.5	7.5
Somalia	6.2	2.2	0.9	0.0	0.0	0.0	2.5
South Africa	4.5	4.4	4.4	2.5	4.7	5.0	6.2
South Korea	3.0	4.8	3.9	3.9	4.9	10.0	9.8
Spain	4.4	4.8	5.0	4.8	4.8	10.0	10.0
Sri Lanka	0.0	0.0	4.1	3.0	2.6	4.8	4.9
Sweden	4.5	7.4	7.0	7.4	7.5	10.0	10.0
Switzerland	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Syria	3.3	9.9	6.5	0.0	0.0	0.0	2.9
Taiwan	9.7	9.5	9.9	9.7	10.0	10.0	10.0
Tanzania	1.9	0.0	0.0	0.0	0.0	7.4	6.7
Thailand	5.0	4.8	4.5	4.7	7.5	10.0	10.0
Togo	4.8	4.8	4.8	4.9	4.6	4.9	4.8
Trinidad & Tob.	7.2	0.7	0.1	1.1	1.0	9.7	9.6
Tunisia	2.0	3.9	3.2	3.8	4.2	4.9	4.7
Turkey	0.0	3.9	3.4	4.7	9.8	9.8	9.9
Uganda	1.9	0.0	0.0	2.5	1.0	4.7	9.2
Ukraine	NR	0.0	0.0	0.0	2.5	7.2	7.2
Unit. Arab Em.	NR	10.0	10.0	10.0	10.0	10.0	10.0
United Kingdom	5.0	5.0	5.0	10.0	10.0	10.0	10.0
United States	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Uruguay	9.7	10.0	10.0	10.0	10.0	10.0	10.0
Venezuela	10.0	10.0	10.0	7.5	10.0	0.8	9.8
Zambia	0.0	0.0	0.0	1.2	0.0	4.7	6.8
Zimbabwe	3.6	0.0	0.0	0.8	3.5	4.9	6.1

AREA V: LEGAL STRUCTURE AND PROPERTY RIGHTS—SECURITY OF PROPERTY

RIGHTS AND VIABILITY OF CONTRACTS

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	NR	6.3	5.9	8.0	2.5
Algeria	3.2	2.5	3.4	3.7	3.5	7.4	8.5
Argentina	4.2	1.2	4.5	3.2	5.2	8.0	8.5
Australia	9.3	7.2	8.0	8.7	8.9	10.0	10.0
Austria	NR	NR	9.3	9.1	10.0	10.0	10.0
Bahamas	NR	NR	NR	6.8	6.7	6.3	6.6
Bahrain	NR	NR	NR	5.9	5.9	8.5	8.5
Bangladesh	NR	NR	1.9	2.2	1.7	5.3	6.9
Barbados	NR	NR	NR	6.8	6.7	6.3	6.6
Belgium	9.9	8.6	8.6	9.1	10.0	9.5	9.0
Belize	NR	NR	NR	NR	NR	NR	NR
Benin	NR	NR	4.2	4.1	4.3	3.6	3.6
Bolivia	NR	NR	1.7	0.5	3.4	7.2	6.9
Botswana	NR	NR	NR	6.5	6.4	8.0	7.6
Brazil	6.2	5.6	6.0	5.6	6.4	8.0	7.9
Bulgaria	NR	NR	NR	7.6	7.4	7.2	4.8
Burundi	NR	NR	4.2	4.1	4.3	3.6	3.6
Cameroon	NR	NR	5.7	6.0	6.0	5.9	5.4
Canada	9.9	8.2	8.4	9.1	9.6	9.5	9.4
C. African Rep.	NR	NR	4.2	4.1	4.3	3.6	3.6
Chad	NR	NR	4.2	4.1	4.3	3.6	3.6
Chile	0.0	2.9	6.5	4.9	7.0	8.5	8.5
China	NR	NR	NR	6.5	5.6	8.5	8.5
Colombia	2.5	3.2	4.5	4.3	3.9	5.8	3.5
Congo, Dem. R.	NR	NR	1.9	2.2	2.1	0.0	0.0
Congo, Rep. Of	NR	NR	4.2	2.9	2.6	4.8	4.8
Costa Rica	NR	NR	4.5	5.1	5.3	6.3	6.0
Cote d'Ivoire	NR	NR	NR	6.4	5.1	4.5	3.8
Croatia	NR	NR	NR	NR	NR	NR	NR
Cyprus	NR	NR	NR	4.4	7.3	8.5	9.0
Czech Rep.	NR	NR	NR	7.3	7.8	9.5	10.0
Denmark	9.7	8.2	8.4	9.1	9.6	10.0	10.0
Dominican Rep.	NR	NR	5.4	3.9	4.5	5.2	4.8
Ecuador	2.5	3.8	6.4	3.9	5.1	5.5	5.1
Egypt	0.3	3.4	2.5	5.2	3.5	7.6	7.6
El Salvador	NR	NR	1.9	1.7	1.7	7.2	6.9
Estonia	NR	NR	NR	NR	NR	NR	7.2
Fiji	NR	NR	NR	NR	NR	NR	NR
Finland	9.1	7.5	8.1	9.1	9.6	10.0	10.0
France	8.5	5.9	6.7	8.3	9.1	10.0	9.0
Gabon	NR	NR	3.6	4.8	5.7	7.2	6.9

	1970	1975	1980	1985	1990	1995	1997
Germany	9.9	8.5	8.6	8.8	10.0	10.0	10.0
Ghana	NR	NR	3.0	2.4	6.0	6.6	6.9
Greece	5.7	5.6	5.5	5.6	7.7	7.6	7.5
Guatemala	NR	NR	2.1	2.1	2.5	5.3	4.8
Guinea-Bissau	NR	NR	NR	1.7	2.6	0.2	0.0
Guyana	NR	NR	1.9	2.2	3.5	6.3	7.0
Haiti	NR	NR	1.9	2.8	0.8	2.7	4.2
Honduras	NR	NR	2.5	3.1	3.5	5.3	4.8
Hong Kong	8.5	7.4	9.6	7.3	7.4	10.0	7.9
Hungary	NR	NR	NR	7.2	7.8	9.5	10.0
Iceland	9.1	7.5	8.1	8.7	10.0	10.0	10.0
India	3.2	2.5	5.9	5.3	4.0	7.1	7.6
Indonesia	3.8	3.4	3.1	4.2	5.5	7.6	7.6
Iran	4.6	3.7	0.5	1.5	2.3	5.9	7.5
Ireland	9.3	7.7	7.8	7.7	9.1	10.0	10.0
Israel	7.8	8.0	5.3	7.3	5.2	8.5	8.5
Italy	6.6	3.7	5.4	8.1	9.5	8.5	9.4
Jamaica	NR	NR	3.2	3.9	4.6	8.0	8.5
Japan	9.1	7.1	8.3	8.6	9.5	10.0	10.0
Jordan	NR	NR	1.9	3.1	3.2	7.2	7.0
Kenya	4.0	3.6	4.7	5.5	5.1	5.7	5.4
Kuwait	NR	NR	1.1	5.6	2.6	8.5	8.8
Latvia	NR	NR	NR	NR	NR	NR	7.2
Lithuania	NR	NR	NR	NR	NR	NR	7.2
Luxembourg	9.9	8.4	8.6	10.0	10.0	10.0	10.0
Madagascar	NR	NR	NR	3.4	2.5	2.5	2.2
Malawi	NR	NR	3.6	4.0	4.6	4.4	6.0
Malaysia	6.2	5.3	7.3	6.7	7.7	7.2	7.5
Mali	NR	NR	3.2	2.3	2.4	2.2	2.2
Malta	NR	NR	NR	3.5	4.8	9.5	10.0
Mauritius	NR	NR	NR	6.5	6.4	8.0	7.6
Mexico	5.2	4.7	6.4	4.8	7.3	7.2	8.5
Morocco	3.2	2.5	1.8	3.6	4.0	8.1	8.5
Myanmar	NR	NR	5.0	4.0	2.2	3.5	6.3
Namibia	NR	NR	NR	NR	2.2	5.5	8.8
Nepal	NR	NR	NR	NR	NR	NR	NR
Netherlands	10.0	8.1	9.0	9.6	9.6	10.0	10.0
New Zealand	9.3	7.2	9.1	8.7	9.6	10.0	10.0
Nicaragua	NR	NR	1.9	2.2	3.2	5.0	5.4
Niger	NR	NR	4.2	4.6	4.9	0.7	2.6
Nigeria	3.5	3.5	2.8	1.5	3.0	4.5	5.4
Norway	9.5	7.6	8.3	9.5	9.8	10.0	10.0
Oman	NR	NR	NR	6.0	5.3	7.7	7.5
Pakistan	1.9	0.8	2.3	3.5	2.4	6.6	7.0

	1970	1975	1980	1985	1990	1995	1997
Panama	NR	NR	2.7	3.5	3.3	6.6	6.9
Pap. New Guinea	NR	NR	NR	6.8	6.2	5.9	7.3
Paraguay	NR	NR	4.3	4.8	5.3	6.0	5.6
Peru	1.7	1.4	3.9	1.2	2.6	8.0	7.9
Philippines	4.4	4.4	3.0	1.7	2.5	6.3	7.6
Poland	NR	NR	NR	4.0	6.0	9.5	9.0
Portugal	6.3	0.9	9.2	7.1	9.1	9.5	9.0
Romania	NR	NR	NR	3.4	6.0	6.6	8.5
Russia	NR	NR	NR	NR	NR	NR	5.4
Rwanda	NR	NR	NR	NR	NR	NR	NR
Senegal	NR	NR	3.6	4.0	4.0	1.0	2.7
Sierra Leone	NR	NR	NR	5.1	4.7	0.0	2.2
Singapore	8.5	7.4	8.9	8.2	8.8	10.0	10.0
Slovakia	NR	NR	NR	7.3	7.8	7.6	6.3
Slovenia	NR	NR	NR	NR	NR	8.5	8.2
Somalia	NR	NR	NR	3.9	1.4	0.0	0.0
South Africa	8.9	6.5	6.6	5.2	3.8	6.8	8.5
South Korea	6.0	4.7	6.8	5.0	7.2	9.0	8.1
Spain	7.0	5.0	6.8	7.0	8.5	9.5	10.0
Sri Lanka	NR	NR	3.9	3.5	2.1	6.6	7.6
Sweden	8.6	7.2	7.8	8.7	10.0	9.5	10.0
Switzerland	10.0	9.3	9.4	10.0	10.0	10.0	9.4
Syria	NR	NR	0.7	2.7	2.6	6.3	6.9
Taiwan	7.5	6.2	8.9	8.2	9.0	9.0	8.1
Tanzania	NR	NR	6.2	6.0	5.5	5.7	6.3
Thailand	6.2	5.3	7.0	6.0	7.8	7.2	8.5
Togo	NR	NR	3.0	4.2	4.4	4.8	4.2
Trinidad & Tob.	NR	NR	6.2	5.1	6.6	5.7	5.4
Tunisia	3.2	2.5	4.6	3.1	3.3	6.3	8.5
Turkey	3.8	3.1	5.2	5.6	4.4	6.3	6.0
Uganda	NR	NR	2.5	2.6	2.1	1.5	4.5
Ukraine	NR	NR	NR	NR	NR	NR	5.1
Unit. Arab Em.	NR	NR	1.9	4.8	5.4	6.3	6.0
United Kingdom	9.8	7.0	8.2	8.5	9.5	9.5	10.0
United States	10.0	9.2	9.4	9.6	9.6	9.5	10.0
Uruguay	NR	NR	5.7	6.0	6.8	7.7	7.5
Venezuela	5.1	1.7	6.1	5.1	6.1	5.7	5.4
Zambia	NR	NR	6.0	4.0	2.5	4.1	4.3
Zimbabwe	NR	NR	2.9	3.1	4.0	3.9	3.9

AREA VI: INTERNATIONAL EXCHANGE: FREEDOM TO TRADE WITH FOREIGNERS

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	NR	NR	NR	4.2	5.8
Algeria	NR	NR	7.8	4.7	3.6	5.0	4.7
Argentina	NR	0.6	3.4	3.7	3.9	7.3	6.6
Australia	7.0	6.6	7.1	7.3	6.9	8.0	8.4
Austria	7.8	7.6	8.3	8.5	8.2	8.7	8.5
Bahamas	NR	4.6	4.4	5.3	3.4	3.0	NR
Bahrain	NR	NR	NR	8.6	8.4	8.0	8.0
Bangladesh	NR	3.4	0.8	1.6	1.5	0.7	NR
Barbados	5.8	5.6	6.3	6.3	5.5	5.8	NR
Belgium	9.5	9.0	9.0	9.1	8.7	8.8	8.6
Belize	NR	NR	4.2	4.5	3.1	2.6	4.7
Benin	NR	4.0	2.2	2.1	NR	NR	NR
Bolivia	3.6	4.9	3.3	5.8	7.8	8.6	8.3
Botswana	NR	4.3	3.2	6.8	7.6	6.9	5.6
Brazil	4.7	5.6	3.5	3.4	5.2	7.4	6.2
Bulgaria	NR	NR	NR	6.6	7.9	6.5	7.7
Burundi	NR	1.3	0.4	1.0	1.1	3.9	2.9
Cameroon	NR	2.2	4.0	5.6	6.4	6.1	NR
Canada	8.2	7.6	8.2	8.6	8.2	8.7	8.5
C. African Rep.	NR	NR	3.8	3.9	3.0	5.8	NR
Chad	NR	4.7	NR	NR	7.1	8.2	NR
Chile	4.1	4.7	8.5	7.0	8.2	8.3	8.0
China	NR	NR	3.2	4.8	4.4	5.4	7.2
Colombia	4.5	4.7	4.0	3.5	4.6	7.6	7.0
Congo, Dem. R.	1.4	0.9	3.2	4.0	4.0	4.0	NR
Congo, Rep. Of	NR	6.7	7.8	4.3	5.1	7.0	NR
Costa Rica	6.4	5.6	4.9	3.5	6.4	7.6	7.9
Cote d'Ivoire	NR	NR	4.3	4.8	4.1	6.3	8.8
Croatia	NR	NR	NR	NR	NR	6.7	7.0
Cyprus	5.5	6.6	6.5	6.3	5.3	6.9	NR
Czech Rep.	NR	NR	NR	NR	NR	8.6	8.7
Denmark	7.6	8.1	8.5	8.6	8.1	8.3	8.3
Dominican Rep.	0.7	1.2	3.3	5.1	4.6	5.6	6.6
Ecuador	1.0	4.5	5.1	4.1	3.5	6.6	7.1
Egypt	NR	2.5	2.3	3.6	3.9	3.8	NR
El Salvador	3.5	5.5	3.3	4.4	5.7	7.2	7.0
Estonia	NR	NR	NR	NR	NR	9.5	9.2
Fiji	NR	5.4	5.9	4.7	5.9	6.2	6.4
Finland	7.9	7.6	8.5	8.6	7.7	8.4	8.4
France	8.3	8.3	8.5	8.5	8.3	8.4	8.5
Gabon	4.3	4.9	3.6	6.1	6.0	7.1	NR
Germany	8.5	8.4	8.7	8.8	8.4	8.4	8.5

	1970	1975	1980	1985	1990	1995	1997
Ghana	1.3	1.0	0.0	2.6	5.7	6.7	NR
Greece	4.9	7.1	7.5	8.0	8.0	8.2	8.1
Guatemala	4.9	5.5	3.3	3.9	5.1	7.3	6.0
Guinea-Bissau	NR	NR	NR	NR	NR	NR	NR
Guyana	NR	NR	NR	6.5	NR	NR	NR
Haiti	NR	3.0	3.8	5.8	4.3	NR	NR
Honduras	5.5	6.2	4.0	NR	5.8	7.4	NR
Hong Kong	9.9	9.6	9.7	9.8	9.9	9.9	10.0
Hungary	NR	NR	7.1	7.6	6.0	7.0	6.4
Iceland	3.8	4.4	6.3	7.2	7.6	8.2	7.6
India	NR	0.9	0.7	0.9	1.1	1.7	4.1
Indonesia	5.5	5.4	6.7	5.8	6.7	7.1	6.9
Iran	3.5	8.3	3.2	2.7	5.6	5.1	4.8
Ireland	5.6	7.3	8.2	8.4	8.0	8.4	8.8
Israel	4.3	4.8	6.4	7.3	7.8	7.4	8.2
Italy	8.5	8.3	8.4	8.5	8.2	8.5	8.4
Jamaica	NR	6.5	7.6	7.5	6.2	6.9	6.7
Japan	7.0	7.9	8.0	8.1	7.9	7.6	7.9
Jordan	NR	6.0	6.1	6.7	5.9	7.4	6.7
Kenya	6.6	6.7	4.2	3.8	3.7	6.0	6.4
Kuwait	NR	NR	NR	8.0	8.0	8.0	7.7
Latvia	NR	NR	NR	NR	NR	8.2	7.8
Lithuania	NR	NR	NR	NR	NR	8.2	8.1
Luxembourg	9.1	7.9	8.7	8.8	8.4	8.5	8.5
Madagascar	1.5	1.9	4.2	2.5	4.2	5.8	3.7
Malawi	6.3	7.2	3.4	4.0	4.9	3.9	4.8
Malaysia	5.9	7.0	7.0	7.9	7.6	7.8	6.9
Mali	NR	1.9	5.0	4.9	5.4	7.0	NR
Malta	4.7	6.5	6.3	6.2	6.1	6.4	5.1
Mauritius	5.3	5.3	3.6	3.9	4.0	5.7	3.8
Mexico	3.6	3.4	1.6	4.4	7.7	8.3	7.9
Morocco	5.4	5.4	2.7	6.0	5.0	5.3	NR
Myanmar	1.7	0.0	0.8	0.0	0.0	0.0	0.0
Namibia	NR	NR	NR	NR	5.7	4.2	6.9
Nepal	0.4	3.1	4.6	5.8	4.4	6.5	6.6
Netherlands	8.8	8.6	8.7	8.8	8.5	8.6	8.6
New Zealand	7.3	7.0	7.0	7.2	6.8	7.9	8.3
Nicaragua	6.2	6.2	2.5	3.4	5.8	5.6	NR
Niger	NR	5.6	5.1	3.0	2.6	5.3	NR
Nigeria	4.6	5.8	4.4	5.4	5.2	3.9	NR
Norway	8.4	8.6	8.8	8.8	8.4	8.0	7.7
Oman	8.5	NR	NR	8.6	8.1	7.8	8.0
Pakistan	1.1	1.5	0.9	1.1	1.9	3.3	5.0
Panama	6.5	7.5	8.5	7.4	6.0	7.7	8.8

	1970	1975	1980	1985	1990	1995	1997
Pap. New Guinea	NR	7.6	7.8	7.3	6.9	6.6	4.6
Paraguay	2.9	3.5	3.1	5.4	6.5	7.9	7.0
Peru	4.1	3.7	2.0	2.6	3.3	7.1	7.0
Philippines	5.5	2.2	4.6	4.5	6.5	7.1	7.4
Poland	NR	NR	NR	5.5	6.6	6.2	5.0
Portugal	7.0	6.2	7.7	8.3	8.0	8.4	8.4
Romania	NR	NR	NR	NR	8.1	7.7	7.0
Russia	NR	NR	NR	NR	NR	6.9	7.1
Rwanda	NR	0.0	1.3	NR	0.6	1.0	NR
Senegal	NR	4.9	3.4	4.5	4.3	4.4	4.3
Sierra Leone	NR	3.4	3.4	2.9	3.0	3.0	0.0
Singapore	9.5	9.7	9.8	9.5	9.8	9.7	9.9
Slovakia	NR	NR	NR	NR	NR	8.7	8.8
Slovenia	NR	NR	NR	NR	NR	NR	8.2
Somalia	NR	1.5	3.1	1.9	NR	NR	NR
South Africa	8.1	8.5	8.6	7.6	7.2	6.1	7.7
South Korea	7.3	7.8	6.9	6.7	7.5	7.7	5.8
Spain	5.0	6.6	7.6	7.8	8.0	8.4	8.5
Sri Lanka	1.9	3.5	2.9	5.1	4.3	5.9	5.8
Sweden	8.2	8.4	8.5	9.0	8.7	8.6	8.6
Switzerland	7.1	7.8	8.3	8.4	7.8	7.8	8.5
Syria	3.7	4.6	3.0	3.7	4.5	6.7	6.9
Taiwan	5.7	7.0	8.0	8.1	8.1	8.4	NR
Tanzania	6.0	5.4	4.8	3.0	4.0	4.8	6.3
Thailand	4.5	4.2	4.9	5.9	4.9	6.0	7.0
Togo	NR	5.6	3.2	6.1	5.6	NR	NR
Trinidad & Tob.	NR	7.0	6.7	5.4	5.5	6.8	NR
Tunisia	3.7	3.6	4.8	3.3	3.3	5.2	4.6
Turkey	0.0	0.3	2.9	4.6	3.6	6.5	8.3
Uganda	NR	0.0	7.2	2.3	2.3	5.9	NR
Ukraine	NR	NR	NR	NR	NR	NR	7.3
Unit. Arab Em.	NR	NR	NR	8.9	8.9	NR	NR
United Kingdom	3.4	8.6	8.6	8.7	8.3	8.5	8.5
United States	6.5	7.7	8.4	8.0	7.9	8.0	7.8
Uruguay	5.0	6.0	3.1	5.6	6.1	7.5	7.1
Venezuela	7.1	7.1	7.4	4.2	5.3	7.9	7.4
Zambia	NR	8.8	8.8	3.7	4.5	6.8	6.9
Zimbabwe	NR	8.1	6.1	4.9	4.8	7.4	3.7

AREA VII: FREEDOM OF EXCHANGE IN CAPITAL AND FINANCIAL MARKETS

	1970	1975	1980	1985	1990	1995	1997
Albania	NR	NR	NR	NR	0.0	2.6	3.1
Algeria	NR	NR	NR	NR	0.3	0.7	0.7
Argentina	5.0	4.7	3.1	2.9	2.6	8.1	8.1
Australia	6.3	5.0	6.6	7.6	9.2	9.3	9.3
Austria	5.6	5.0	5.5	6.0	6.7	7.0	7.6
Bahamas	6.2	6.3	6.3	6.9	6.8	6.9	6.9
Bahrain	NR	6.4	6.2	6.0	6.7	6.5	7.0
Bangladesh	NR	0.6	2.3	2.8	3.9	3.5	3.5
Barbados	NR	5.1	5.2	6.1	6.0	6.0	5.9
Belgium	10.0	8.7	10.0	10.0	8.7	8.6	8.7
Belize	NR	NR	6.9	6.7	8.2	8.3	7.9
Benin	2.7	2.8	3.6	4.0	4.3	4.5	4.6
Bolivia	NR	NR	2.0	NR	7.3	7.5	8.3
Botswana	NR	NR	5.8	6.9	5.5	6.0	6.6
Brazil	4.6	4.6	3.7	2.4	2.7	3.1	4.5
Bulgaria	NR	NR	NR	NR	1.0	4.3	4.8
Burundi	1.8	1.7	1.9	2.7	2.1	1.3	2.9
Cameroon	NR	NR	1.9	1.9	3.5	2.7	3.2
Canada	8.8	8.1	9.3	9.3	9.3	9.1	9.2
C. African Rep.	NR	NR	NR	2.5	4.4	3.3	3.4
Chad	NR	NR	NR	3.2	3.2	2.2	2.5
Chile	NR	3.5	5.9	6.5	6.6	8.1	8.0
China	NR	NR	0.0	0.7	1.7	3.0	3.0
Colombia	NR	NR	5.3	5.3	5.9	7.2	7.1
Congo, Dem. R.	2.6	2.8	3.1	3.4	2.3	2.5	0.7
Congo, Rep. Of	NR	NR	1.9	2.5	3.7	1.8	2.9
Costa Rica	8.0	6.7	6.0	7.3	7.6	8.7	9.1
Cote d'Ivoire	NR	NR	4.6	5.0	4.4	4.6	5.1
Croatia	NR	NR	NR	NR	NR	2.7	4.0
Cyprus	5.3	6.1	5.1	6.0	6.4	6.5	6.4
Czech Rep.	NR	NR	NR	NR	NR	5.5	5.4
Denmark	8.0	8.0	8.2	7.9	8.0	8.5	9.0
Dominican Rep.	NR	NR	5.6	5.4	4.9	7.1	7.8
Ecuador	NR	NR	4.4	3.1	4.7	7.0	8.1
Egypt	NR	NR	2.8	3.7	3.6	6.0	5.7
El Salvador	NR	NR	NR	6.1	6.1	8.0	9.2
Estonia	NR	NR	NR	NR	NR	5.1	6.8
Fiji	NR	3.3	4.8	5.4	4.3	4.8	4.7
Finland	NR	6.4	6.8	7.3	7.3	8.7	8.7
France	6.7	7.2	7.0	7.0	7.9	8.3	8.2
Gabon	NR	NR	1.9	2.5	3.8	3.3	4.0
Germany	7.7	7.1	7.6	8.1	8.2	8.1	8.1

	1970	1975	1980	1985	1990	1995	1997
Ghana	NR	1.8	1.1	1.6	2.6	4.2	4.4
Greece	3.9	2.9	3.4	3.4	4.6	5.6	6.4
Guatemala	6.3	6.9	7.5	7.5	7.5	8.2	7.6
Guinea-Bissau	NR	NR	NR	NR	4.0	4.4	6.1
Guyana	NR	NR	NR	NR	NR	4.8	5.2
Haiti	NR	NR	NR	NR	2.9	3.6	5.0
Honduras	NR	NR	3.7	4.8	4.8	5.7	7.4
Hong Kong	NR	10.0	10.0	10.0	10.0	9.9	9.9
Hungary	NR	NR	2.3	1.3	3.0	5.8	6.2
Iceland	NR	3.6	4.1	4.1	4.9	6.3	6.4
India	3.6	2.6	3.5	3.6	3.5	3.9	3.8
Indonesia	0.6	0.6	2.0	3.1	4.9	5.8	5.8
Iran	NR	NR	1.7	1.5	1.8	2.0	4.0
Ireland	6.0	5.8	6.3	7.1	7.3	8.2	8.3
Israel	2.3	2.2	1.5	1.1	3.1	4.2	4.9
Italy	6.3	5.5	4.9	5.3	6.3	7.3	7.8
Jamaica	NR	NR	3.7	4.1	6.9	7.8	7.7
Japan	5.7	5.6	6.1	7.0	7.8	7.8	7.9
Jordan	NR	4.8	5.0	4.8	4.6	5.3	6.4
Kenya	4.9	3.1	4.3	4.7	5.2	6.0	7.0
Kuwait	NR	5.3	5.3	6.0	2.5	4.8	5.2
Latvia	NR	NR	NR	NR	NR	5.1	7.0
Lithuania	NR	NR	NR	NR	NR	5.2	6.8
Luxembourg	10.0	10.0	10.0	10.0	10.0	9.1	9.2
Madagascar	2.7	2.4	2.6	2.7	1.9	2.4	4.3
Malawi	NR	3.2	3.7	4.2	4.2	3.1	2.8
Malaysia	6.4	5.9	5.8	6.8	6.9	7.0	6.9
Mali	NR	4.2	4.2	4.6	5.1	4.4	4.5
Malta	3.1	3.2	4.0	3.9	3.8	4.8	4.7
Mauritius	NR	5.1	5.3	6.7	6.5	8.7	8.8
Mexico	NR	4.1	4.6	2.0	4.5	7.2	6.2
Morocco	NR	NR	4.2	4.5	4.9	5.1	5.1
Myanmar	1.2	0.5	0.1	0.0	0.0	0.0	0.0
Namibia	NR	NR	NR	NR	5.5	6.1	6.0
Nepal	NR	NR	2.7	2.5	3.8	3.7	3.8
Netherlands	7.1	7.1	9.1	8.4	8.9	9.6	9.6
New Zealand	5.8	5.6	5.7	6.1	9.7	9.9	9.4
Nicaragua	NR	NR	NR	1.1	0.8	6.8	7.3
Niger	NR	3.2	2.9	3.0	4.2	4.4	4.2
Nigeria	NR	1.3	1.3	1.9	2.3	3.2	3.0
Norway	5.4	5.9	5.8	7.8	8.3	8.5	8.5
Oman	NR	NR	6.3	7.1	7.1	7.1	7.1
Pakistan	4.1	2.0	3.4	4.1	3.5	3.3	3.2
Panama	NR	8.1	8.2	8.1	8.8	9.4	9.4

	1970	1975	1980	1985	1990	1995	1997
Pap. New Guinea	NR	4.2	3.9	4.2	4.3	5.1	5.0
Paraguay	NR	NR	NR	NR	5.4	9.2	9.2
Peru	NR	NR	2.3	2.2	1.8	7.7	8.3
Philippines	NR	5.5	5.2	4.4	6.1	7.5	7.6
Poland	NR	NR	0.0	0.0	0.1	4.0	5.1
Portugal	3.4	2.7	2.9	4.2	5.0	6.3	7.5
Romania	0.0	0.0	0.0	0.0	0.0	1.1	1.4
Russia	NR	0.0	0.0	0.0	0.0	4.0	4.5
Rwanda	1.4	1.3	3.4	3.6	3.8	1.8	1.9
Senegal	NR	NR	4.5	4.0	4.5	3.3	3.7
Sierra Leone	NR	2.5	3.2	0.9	1.9	2.2	2.0
Singapore	NR	8.9	9.2	9.8	9.7	9.7	9.7
Slovakia	NR	NR	NR	NR	NR	4.3	5.3
Slovenia	NR	NR	NR	NR	NR	6.0	6.0
Somalia	NR	NR	NR	NR	NR	NR	NR
South Africa	6.6	6.7	6.0	7.2	7.2	7.7	7.7
South Korea	NR	3.9	4.3	6.3	7.2	7.2	7.2
Spain	NR	6.0	6.7	7.4	8.2	8.1	8.2
Sri Lanka	NR	NR	3.6	5.0	4.7	6.1	6.0
Sweden	5.5	5.1	6.0	7.2	8.8	8.5	8.5
Switzerland	NR	5.2	7.4	8.5	8.5	8.5	8.5
Syria	0.9	0.1	0.2	0.4	0.3	0.4	0.2
Taiwan	2.7	4.2	4.1	5.2	6.2	6.1	5.5
Tanzania	1.0	0.1	1.0	0.0	2.4	1.9	2.2
Thailand	NR	5.6	5.3	6.8	6.5	7.9	7.9
Togo	NR	NR	4.5	4.6	4.6	4.4	3.9
Trinidad & Tob.	NR	4.1	4.2	5.8	5.2	7.4	7.7
Tunisia	3.2	3.3	3.3	3.8	6.5	6.7	6.7
Turkey	NR	3.8	2.9	4.8	3.9	6.2	6.0
Uganda	NR	2.2	1.7	1.7	2.1	2.9	3.1
Ukraine	NR	NR	NR	NR	NR	0.7	0.9
Unit. Arab Em.	NR	7.9	7.8	5.6	5.8	5.7	5.8
United Kingdom	6.5	5.7	8.0	9.8	10.0	9.9	10.0
United States	9.5	9.1	9.7	9.6	9.7	9.7	9.7
Uruguay	NR	NR	7.0	7.7	7.7	7.4	7.4
Venezuela	NR	7.4	6.5	6.3	4.6	3.9	5.0
Zambia	NR	3.5	3.3	1.6	2.1	2.8	5.4
Zimbabwe	NR	NR	3.6	3.8	4.4	5.2	5.4

APPENDIX 2

EXPLANATORY NOTES AND DATA SOURCES

Component

I-A The rating for this component is equal to: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. The V_i is the country's actual government consumption as a proportion of total consumption, while the V_{\max} and V_{\min} represent the maximum and minimum values for this component during the 1990 base year for the countries included in our analysis. Countries with a larger proportion of government expenditures received lower ratings. If the ratio of a country's government consumption to total consumption is close to the minimum value of this ratio during the 1990 base year, the country's rating will be close to 10. In contrast, if this ratio is close to the highest value during the base year, the rating will be close to zero.

Sources World Bank, *1997 World Development Indicators CD-Rom* and International Monetary Fund, *International Financial Statistics* (various issues). The 1997 figures were primarily from the latter publication.

I-B The rating for this component is equal to: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. The V_i is the country's ratio of transfers and subsidies to GDP, while the V_{\max} and V_{\min} represent the maximum and minimum values of this component during the 1990 base year. The formula will generate lower ratings for countries with larger transfer sectors. When the size of a country's transfer sector approaches that of the country with the largest transfer sector during the base year, the rating of the country will approach zero.

Sources World Bank, *1997 World Development Indicators CD-Rom*; International Monetary Fund, *International Financial Statistics* (various issues); International Monetary Fund, *Government Finance Statistics Yearbook* (various years); and Inter-American Development Bank, *Economic and Social Progress in Latin America, 1994*.

II-A Data on the number, composition, and share of output supplied by State-Operated Enterprises (SOEs) and government investment as a share of total investment were used to construct the zero-to-10 ratings. Countries with more government enterprise and government investment received lower ratings. When there were few SOEs and government investment was generally less than 15 percent of total investment, countries were given a rating of 10. When there were few SOEs other than those involved in industries where economies of scale reduce the effectiveness of competition (e.g., power generation) and government investment was between 15 and 20 percent of the total, countries received a rating of 8. When there were, again, few SOEs other than those involved in energy and other such industries

and government investment was between about 20 and 25 percent of the total, countries were rated at 7. When SOEs were present in the energy, transportation, and communication sectors of the economy and government investment was between about 25 and 30 percent of the total, countries were assigned a rating of 6. When a substantial number of SOEs operated in many sectors, including manufacturing, and government investment was generally between 30 and 40 percent of the total, countries received a rating of 4. When numerous SOEs operated in many sectors, including retail sales, and government investment was between about 40 and 50 percent of the total, countries were rated at 2. A rating of zero was assigned when the economy was dominated by SOEs and government investment exceeded 50 percent of the total.

Sources World Bank Policy Research Report, *Bureaucrats in Business* (1995); Rexford A. Ahene and Bernard S. Katz, eds., *Privatization and Investment in Sub-Saharan Africa* (1992); Manuel Sanchez and Rossana Corona, eds., *Privatization in Latin America* (1993); Iliya Harik and Denis J. Sullivan, eds., *Privatization and Liberalization in the Middle East* (1992); OECD, *Economic Surveys* (various issues); and L. Bouten and M. Sumlinski, *Trends in Private Investment in Developing Countries: Statistics for 1970–1995*.

II-B The more widespread the use of price controls, the lower the rating. The survey data of the International Institute for Management Development (IMD), *World Competitiveness Report*, 1990 and 1997, were used to rate the 46 countries (mostly developed economies) covered by this report. For other countries, the Price Waterhouse series, *Doing Business in . . .* and other sources were used to categorize countries. Countries were given a rating of 10 if no price controls or marketing boards were present. When price controls were limited to industries where economies of scale may reduce the effectiveness of competition (e.g., power generation), a country was given a rating of 8. When price controls were applied in only a few other industries, such as agriculture, a country was given a rating of 6. When price controls were levied on energy, agriculture, and many other stable products that are widely purchased by households, a rating of 4 was given. When price controls applied to a significant number of products in both agriculture and manufacturing, the rating was 2. A rating of zero was given when there was widespread use of price controls throughout various sectors of the economy.

Sources IMD, *World Competitiveness Report* (various issues); Price Waterhouse, *Doing Business in . . .* publication series; World Bank, *Adjustment in Africa: Reforms, Results, and the Road Ahead* (1994); and US State Department, *Country Reports on Economic Policy and Trade Practices* (various years).

II-C Data on the top marginal tax rates and the income thresholds at which they take effect were used to construct a rating grid. Countries with higher marginal tax rates that take effect at lower income thresholds received lower ratings. The income threshold data were converted from local currency to 1982/1984 US dollars (using beginning-of-year exchange rates and the US Consumer Price Index). See *Economic Freedom of the World: 1997 Annual Report*, page 265, for the precise relationship between a country's rating and its top marginal tax and income threshold.

Source Price Waterhouse, *Individual Taxes: A Worldwide Summary* (various issues).

- II-D** Data on the use and duration of military conscription were used to construct rating intervals. Countries with longer conscription periods received lower ratings. A rating of 10 was assigned to countries without military conscription. When length of conscription was six months or less, countries were given a rating of 5. When length of conscription was more than six months but not more than 12 months, countries were rated at 3. When length of conscription was more than 12 months but not more than 18 months, countries were assigned a rating of 1. When conscription periods exceeded 18 months, countries were rated zero.
- Source International Institute for Strategic Studies, *The Military Balance* (various issues).
- III-A** The M1 money supply figures were used to measure the growth rate of the money supply. The rating is equal to: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the average annual growth rate of the money supply during the last five years adjusted for the growth of real GDP during the previous 10 years. The values for V_{\min} and V_{\max} were set at zero and 50 percent, respectively. Therefore, if the adjusted growth rate of the money supply during the last five years was zero, indicating that money growth was equal to the long-term growth of real output, the formula generates a rating of 10. Ratings decline as the adjusted money supply growth differs from zero. When the adjusted annual money growth is equal to (or greater than) 50 percent, a rating of zero results.
- Sources World Bank, *1997 World Development Indicators CD-Rom*, with updates from International Monetary Fund, *International Financial Statistics* (various issues).
- III-B** The GDP deflator was used as the measure of inflation. When these data were unavailable, the Consumer Price Index was used. The following formula was used to determine the zero-to-10 scale rating for each country: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the country's standard deviation of the annual rate of inflation during the last five years. The values for V_{\min} and V_{\max} were set at zero and 25 percent, respectively. This procedure will allocate the highest ratings to the countries with least variation in the annual rate of inflation. A perfect 10 results when there is no variation in the rate of inflation over the five-year period. Ratings will decline toward zero as the standard deviation of the inflation rate approaches 25 percent annually.
- Sources World Bank, *1997 World Development Indicators CD-Rom*, with updates from International Monetary Fund, *International Financial Statistics* (various issues).
- III-C** The zero-to-10 country ratings were derived by the following formula: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the rate of inflation during the most recent year. The values for V_{\min} and V_{\max} were set at zero and 50 percent, respectively. The lower the rate of inflation, the higher the rating. Countries that achieve perfect price stability earn a rating of 10. As the inflation rate moves toward a 50 percent annual rate, the rating for this component moves toward zero. A zero rating is assigned to all countries with an inflation rate of 50 percent or more.
- Source World Bank, *1997 World Development Indicators CD-Rom*, with updates from International Monetary Fund, *International Financial Statistics* (various issues).

IV-A When foreign currency bank accounts were permissible without restrictions both domestically and abroad, the rating was 10; when these accounts were restricted, the rating was zero. If foreign currency bank accounts were permissible domestically but not abroad (or vice versa), the rating was 5.

Sources Currency Data and Intelligence, Inc., *World Currency Yearbook* (various issues) and International Monetary Fund, *Annual Report on Exchange Arrangements and Exchange Restrictions* (various issues).

IV-B The formula used to calculate the zero-to-10 ratings for this component was: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the country's black-market exchange rate premium. The values for V_{\min} and V_{\max} were set at zero and 50 percent, respectively. This formula will allocate a rating of 10 to countries without a black-market exchange rate; i.e., those with a domestic currency that is fully convertible without restrictions. When exchange rate controls are present and a black market exists, the ratings will decline toward zero as the black market premium increases toward 50 percent. A zero rating is given when the black market premium is equal to, or greater than, 50 percent.

Sources Currency Data and Intelligence, Inc., *World Currency Yearbook* (various issues of the yearbook and the monthly report supplement) and International Monetary Fund, *International Financial Statistics* (various issues).

V-A Countries with less risk of confiscation received higher ratings. The data from 1980 to 1997 on the risk of expropriation are from PRS Group, *International Country Risk Guide* (various issues). The 1980 data are actually for 1982, the initial year of the International Country Risk Guide (ICRG) data source. The 1970 and 1975 data are from Business Environment Risk Intelligence (BERI). The ICRG did not provide ratings for Barbados, Benin, Burundi, Central African Republic, Chad, Estonia, Latvia, Lithuania, Mauritius, Slovenia and Ukraine. We rated these countries based on the ratings for similar countries (in parentheses): for Barbados (Bahamas), Mauritius (Botswana), Estonia, Latvia, and Lithuania (Poland and Russia), Slovenia (Czech Republic and Slovakia), Ukraine (Bulgaria and Russia), Benin, Burundi, Central African Republic, and Chad (Cameroon, Republic of Congo, Gabon, Mali, and Niger).

While the original rating scale for the ICRG data was zero-to-10, BERI data were on a one-to-four scale. We used regression analysis from the two sources during the initial overlapping year 1982 to merge the two data sets and place the 1970 and 1975 ratings on a scale comparable to that used for the other years. The following regression equation was used to convert the 1970 and 1975 BERI ratings to a scale comparable with that of ICRG: 1982 ICRG Rating = $a + b$ (1982 BERI Rating). The coefficient values for a and b were 0.086 and 2.9, respectively. The t-ratio for the estimated value of b was 4.70 and the R2 for the equation was 0.43.

Because the ICRG ratings inexplicably increase from the mid-1990s to the late 1990s, all ratings were adjusted using the maximum and minimum procedure used in other components in order to make the component consistent over time. The following formula was used to

place the figures on a zero-to-10 scale: $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the country's actual value for the component. V_{\max} and V_{\min} were set at 10 and 2 standard deviations below the average, respectively.

Source PRS Group, *International Country Risk Guide* (various issues).

V-B Countries where there is less risk that the government will unilaterally cancel contracts received higher ratings. The data from 1980 to 1997 on the risk of contract repudiation are from PRS Group, *International Country Risk Guide* (various issues). The 1980 data are actually for 1982, the initial year of the International Country Risk Guide (ICRG) data source. The 1970 and 1975 data are from Business Environment Risk Intelligence (BERI). The ICRG did not provide ratings for Barbados, Benin, Burundi, Central African Republic, Chad, Estonia, Latvia, Lithuania, Mauritius, Slovenia and Ukraine. We rated these countries based on the ratings for similar countries (in parentheses): for Barbados (Bahamas), Mauritius (Botswana), Estonia, Latvia, and Lithuania (Poland and Russia), Slovenia (Czech Republic and Slovakia), Ukraine (Bulgaria and Russia), Benin, Burundi, Central African Republic, and Chad (Cameroon, Republic of Congo, Gabon, Mali, and Niger).

While the original rating scale for the ICRG data was zero-to-10, BERI data were on a one-to-four scale. We used regression analysis from the two sources during the initial overlapping year 1982 to merge the two data sets and place the 1970 and 1975 ratings on a scale comparable to that for the other years. The following regression was used to convert the 1970 and 1975 BERI ratings to a scale comparable with that of ICRG: 1982 ICRG Rating = $a + b$ (1982 BERI Rating). The coefficient values for a and b were -0.164 and 2.96 , respectively. The t-ratio for the estimated value of b was 6.73 and the R^2 for the equation was 0.62 .

Because the ICRG ratings inexplicably increase from the mid-1990s to late 1990s, all ratings were adjusted using the maximum and minimum procedure used in other components in order to make the component consistent over time. The following formula was used to place the figures on a zero-to-10 scale: $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the country's actual value for the component. V_{\max} and V_{\min} were set at 10 and 2 standard deviations below the average, respectively.

Source PRS Group, *International Country Risk Guide* (various issues).

V-C Countries with legal institutions that were more supportive of rule of law received higher ratings. The data from 1980 to 1997 on the rule of law are from PRS Group, *International Country Risk Guide* (various issues). The 1980 data are actually for 1982, the initial year of the International Country Risk Guide (ICRG) data source. The ICRG did not provide ratings for Barbados, Benin, Burundi, Central African Republic, Chad, Estonia, Latvia, Lithuania, Mauritius, Slovenia and Ukraine. We rated these countries based on the ratings for similar countries (in parentheses): for Barbados (Bahamas), Mauritius (Botswana), Estonia, Latvia, and Lithuania (Poland and Russia), Slovenia (Czech Republic and Slovakia), Ukraine (Bulgaria and Russia), Benin, Burundi, Central African Republic, and Chad (Cameroon, Republic of Congo, Gabon, Mali, and Niger).

Because the ICRG ratings inexplicably increase from the mid-1990s to late 1990s, all ratings were adjusted using the maximum and minimum procedure used in other components in order to make the component consistent over time. The following formula was used to place the figures on a zero-to-10 scale: $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the country's actual value for the component. V_{\max} and V_{\min} were set at 10 and 2 standard deviations below the average, respectively.

Source PRS Group, *International Country Risk Guide* (various issues).

VI-A (i) The formula used to calculate the ratings for this component was: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the revenue derived from taxes on international trade as a share of the trade sector. The values for V_{\min} and V_{\max} were set at zero and 15 percent, respectively. This formula leads to lower ratings as the average tax rate on international trade increases. Countries with no specific taxes on international trade earn a perfect 10. As the revenues from these taxes rise toward 15 percent of international trade, ratings decline toward zero. (Note that except for two or three extreme observations, the revenues from taxes on international trade as a share of the trade sector are within the zero to 15 percent range.)

Sources International Monetary Fund, *Government Finance Statistics Yearbook* (various issues) and International Monetary Fund, *International Financial Statistics* (various issues).

VI-A (ii) The formula used to calculate the zero-to-10 rating for each country was: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the country's mean tariff rate. The values for V_{\min} and V_{\max} were set at zero and 50 percent, respectively. This formula will allocate a rating of 10 to countries that do not impose tariffs. As the mean tariff rate increases, countries are assigned lower ratings. The rating will decline toward zero as the mean tariff rate approaches 50 percent. (Note that except for two or three extreme observations, all countries have mean tariff rates within this zero to 50 percent range.)

Sources OECD, *Indicators of Tariff and Non-tariff Trade Barriers* (1996); World Bank, *1997 World Development Indicators CD-Rom*; J. Michael Finger, Merlinda D. Ingco, and Ulrich Reincke, *Statistics on Tariff Concessions Given and Received* (1996); Judith M. Dean, Seema Desai, and James Riedel, *Trade Policy Reform in Developing Countries since 1985: A Review of the Evidence* (1994); GATT, *The Tokyo Round of Multilateral Trade Negotiations, Vol. II: Supplementary Report* (1979); UNCTAD, *Revitalizing Development, Growth and International Trade: Assessment and Policy Options* (1987); R. Erzan and K. Kuwahara, The Profile of Protection in Developing Countries, *UNCTAD Review* 1 (1) (1989): 29–49; and Inter-American Development Bank (data supplied to the authors).

VI-A (iii) Compared to a uniform tariff, wide variation in tariff rates exerts a more restrictive impact on trade, and therefore on economic freedom. Thus, countries with greater variation in their tariff rates should be given lower ratings. The formula used to calculate the zero-to-10 ratings for this component was: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i represents the standard deviation of the country's tariff rates. The values for V_{\min} and V_{\max} were set at zero and 25 percent, respectively. This formula will allocate a rating of 10 to countries that impose a uniform tariff. As the standard deviation of tariff rates increases toward 25 percent, ratings decline toward zero. (Note that except a few very extreme observations, the standard deviations of the tariff rates for the countries in our study fall within this zero to 25 percent range.)

- Sources OECD, *Indicators of Tariff and Non-tariff Trade Barriers* (1996); World Bank, *1997 World Development Indicators CD-Rom*; Jang-Wha Lee and Phillip Swagel, *Trade Barriers and Trade Flows across Countries and Industries*, NBER Working Paper Series No. 4799 (1994); and Inter-American Development Bank (data supplied to the authors).
- VI-B (i)** The formula used to calculate the ratings for this component was: $(V_{\max} - V_i) / (V_{\max} - V_{\min})$ multiplied by 10. V_i indicates the share of the trade sector covered by non-tariff restrictions. During the 1990 base year, this figure ranged from a low of zero to a high of 100 percent. Thus, the values for V_{\min} and V_{\max} were set at zero and 100 percent, respectively. This formula will allocate a rating of 10 to countries that do not impose non-tariff trade barriers. Ratings will decline toward zero as the share of the trade sector covered by restrictions increases toward 100 percent. Thus, countries with larger percentages of trade subject to non-tariff restraints receive lower ratings.
- Sources UNCTAD, *Directory of Import Regimes: Part 1* (1994); World Bank, *1997 World Development Indicators CD-Rom*; Sam Laird and Alexander Yeats, *Quantitative Methods for Trade Barrier Analysis* (1990); OECD, *Indicators of Tariff and Non-tariff Trade Barriers* (1996); and World Bank, *Adjustment in Africa: Reforms, Results, and the Road Ahead* (1994).
- VI-B (ii)** Regression analysis was used to derive an expected size of the trade sector based on the country's population, geographic size, and locational characteristics. The actual size of the trade sector was then compared with the expected size for the country. If the actual size of the trade sector is greater than expected, this figure will be positive. If it is less than expected, the number will be negative. The percent change of the negative numbers was adjusted to make it symmetrical with the percent change of the positive numbers. The following formula was used to place the figures on a zero-to-10 scale: $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the country's actual value for the component. V_{\max} and V_{\min} were set at 100 percent and minus 50 percent, respectively. (Note that minus 50 percent is symmetrical with positive 100 percent.) This procedure allocates higher ratings to countries with large trade sectors compared to what would be expected, given their population, geographic size, and location. On the other hand, countries with small trade sectors relative to the expected size receive lower ratings.
- Sources World Bank, *1997 World Development Indicators CD-Rom*; International Monetary Fund, *International Financial Statistics* (various issues); and Central Intelligence Agency, *1997 World Factbook*.
- VII-A** Data on the percentage of bank deposits held in privately owned banks were used to construct rating intervals. Countries with larger shares of privately held deposits received higher ratings. When privately held deposits totaled between 95 and 100 percent, countries were given a rating of 10. When private deposits constituted between 75 and 95 percent of the total, a rating of 8 was assigned. When private deposits were between 40 and 75 percent of the total, the rating was 5. When private deposits totaled between 10 and 40 percent, countries received a rating of 2. A zero rating was assigned when private deposits were 10 percent or less of the total.
- Sources Euromoney Publications, *The Telrate Bank Register* (various editions); World Bank, *Adjustment in Africa: Reforms, Results, and the Road Ahead* (1994); Price Waterhouse, *Doing Business in ...* publication series; H.T. Patrick and Y.C. Park, eds., *The Financial Development of Japan, Korea,*

and Taiwan: *Growth, Repression, and Liberalization* (1994); D.C. Cole and B.F. Slade, *Building a Modern Financial System: The Indonesian Experience* (1996); and information supplied by member institutes of the Economic Freedom Network.

VII-B For this component, higher values are indicative of greater economic freedom. Thus, the formula used to derive the country ratings for this component was $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ multiplied by 10. V_i is the share of the country's total domestic credit allocated to the private sector. V_{\max} is the maximum value and V_{\min} the minimum value for the figure during the 1990 base year. Respectively, these figures were 99.9 percent and 10.0 percent. The formula allocates higher ratings as the share of credit extended to the private sector increases. A country's rating will be close to 10 when the private sector's share of domestic credit is near the base-year maximum (99.9 percent). A rating near zero results when the private sector's share of credit is close to the base-year minimum (10.0 percent).

Sources International Monetary Fund, *International Financial Statistics* (the 1997 yearbook and June 1998 monthly supplement) and *Statistical Yearbook of the Republic of China* (1996).

VII-C Data on credit-market controls and regulations were used to construct rating intervals. Countries with interest rates determined by the market, stable monetary policy, and positive real deposit and lending rates received higher ratings. When interest rates were determined primarily by market forces and the real rates were positive, countries were given a rating of 10. When interest rates were primarily market-determined but the real rates were sometimes slightly negative (less than 5%) or the differential between the deposit and lending rates was large (8% or more), countries received a rating of 8. When the real deposit or lending rate was persistently negative by a single-digit amount or the differential between them was regulated by the government, countries were rated at 6. When the deposit and lending rates were fixed by the government and the real rates were often negative by single-digit amounts, countries were assigned a rating of 4. When the real deposit or lending rate was persistently negative by a double-digit amount, countries received a rating of 2. A zero rating was assigned when the deposit and lending rates were fixed by the government and real rates were persistently negative by double-digit amounts or hyperinflation had virtually eliminated the credit market.

Source International Monetary Fund, *International Financial Statistics Yearbook* (various issues, as well as the monthly supplements).

VII-D Descriptive data on capital-market arrangements were used to place countries into rating categories. Countries with more restrictions on foreign capital transactions received lower ratings. When domestic investments by foreigners and foreign investments by citizens were unrestricted, countries were given a rating of 10. When these investments were restricted only in a few industries (e.g., banking, defence, and telecommunications), countries were assigned a rating of 8. When these investments were permitted but regulatory restrictions slowed the mobility of capital, countries were rated at 5. When either domestic investments by foreigners or foreign investments by citizens required approval from government authorities, countries received a rating of 2. A zero rating was assigned when both domestic investments by foreigners and foreign investments by citizens required government approval.

Sources International Monetary Fund, *Annual Report on Exchange Arrangements and Exchange Restrictions* (various issues) and Price Waterhouse, *Doing Business in . . .* publication series.

APPENDIX 3

SELECTED PUBLICATIONS USING RATINGS FROM *ECONOMIC FREEDOM OF THE WORLD*

The following are some of the articles that have used the economic freedom ratings from *Economic Freedom of the World*. In some cases, a brief abstract of the article is provided. Those interested in doing further research using the Economic Freedom index are invited to retrieve the dataset from the website of the Economic Freedom Network, www.freetheworld.com. The most up-to-date information on articles using the index of Economic Freedom can be found at www.freetheworld.com/papers.html.

Ali, Abdiweli M. (1997). Economic Freedom, Democracy and Growth. *Journal of Private Enterprise* 13 (Fall): 1–20.

“This paper takes advantage of newly constructed measures of economic freedom to show the importance of economic freedom on growth. I find that economic freedom is a more robust determinant of growth than political freedom and civil liberty.”

Uses summary ratings from *Economic Freedom of the World: 1975–1995* as one variable in a comparison of a number of institutional variables.

Ali, Abdiweli M., and W. Mark Crain (1999). Institutional Distortions, Economic Freedom, and Growth. Draft manuscript (April). James M. Buchanan Center for Political Economy.

This paper examines the robustness of economic freedom as a predictor of growth and investment compared to political rights and civil liberties. It also examines the relation between economic freedom and input price distortions and institutional quality.

Uses summary ratings from *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables.

Ayal, Eliezer B., and Karras Georgios (1998). Components of Economic Freedom and Growth: An Empirical Study. *Journal of Developing Areas* 32 (Spring): 327–38.

The paper uses regression analysis to examine the effect of the components of economic freedom on growth, output and investment and finds that “economic freedom enhances growth both via increasing total factor productivity and via enhancing capital accumulation.” It also identifies components that have the highest statistical effects on these variables, with the aim of informing policy makers.

Uses component ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Berggren, Niclas (1999). Economic Freedom and Equality: Friends or Foes? *Public Choice* 100, 3/4 (September): 203–23.

This paper describes a theoretical model of the relationship between economic freedom and income distribution, and investigates empirical results. The results indicate that “sustained and gradual increases in economic freedom influence equality measures positively ... [but] the absolute

level of economic freedom appears to be negatively related to equality in some cases.”

Uses summary ratings from *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

Boettke, Peter J. (1999). Why Culture Matters: Economics, Politics and the Imprint of History. Working paper, New York University. Digital document: www.econ.nyu.edu/user/boettke/culture.htm.

This paper, which cites conclusions from *Economic Freedom of the World: 1975–1995*, discusses how culture and history determine whether liberal economic policies will remain in a given country.

Chafuen, Alejandro (1998). Estado y Corrupcion. In Alejandro Chafuen and Eugenio Guzmán, *Corrupción y Gobierno* (Santiago, Chile: Fundación Libertad y Desarrollo): 45–98.

Finds that corruption is negatively related to economic freedom.

Economic Freedom of the World: 1975–1995 and *Transparency International* are the main data-source for institutional variables.

Dawson, John W. (1998). Institutions, Investment, and Growth: New Cross-Country and Panel Data Evidence. *Economic Inquiry* 36 (October): 603–19.

“This paper outlines the alternative channels through which institutions affect growth, and studies the empirical relationship between institutions, investment, and growth. The empirical results indicate that (i) free-market institutions have a positive effect on growth; (ii) economic freedom affects growth through both a direct effect on total factor productivity and an indirect effect on investment; (iii) political and civil liberties may stimulate investment; (iv) an important interaction exists between freedom and human capital investment; (v) Milton Friedman’s conjectures on the relation between political and economic freedom are correct; (vi) promoting economic freedom is an effective policy toward facilitating growth and other types of freedom.”

Uses *Economic Freedom of the World: 1975–1995* as the main data source for institutional variables.

De Haan, Jakob, and Clemens L.J. Sierman (1998). Further Evidence on the Relationship between Economic Freedom and Economic Growth. *Public Choice* 95: 363–80.

Primarily investigates the robustness of the index of economic freedom devised by Gerald Scully and D.J. Slottje and determines that the robustness of results depends heavily on how freedom is measured. Finds that some specifications are robust predictors of the growth rate of real per-capita GDP (1980–1992) but few are robust for investment share of GDP.

Empirical analysis on *Economic Freedom of the World: 1975–1995* is limited to correlation with the Scully and Slotje’s index. Suggests further empirical work be done on *Economic Freedom of the World*.

Easton, Steven T., and Michael A. Walker (1997). Income, Growth, and Economic Freedom. *American Economic Review* 87 (2) (May): 328–32.

Finds that economic freedom is an important explanatory variable for steady-state levels of income. The addition of a variable for economic freedom is also shown to increase the explanatory power of a neo-classical growth model.

Economic Freedom of the World: 1975–1995 is the main data source for institutional variables.

Farr, W. Ken, Richard A. Lord, and J. Larry Wolfenbarger (1998). Economic Freedom, Political Freedom and Economic Well-Being: A Causality Analysis. *Cato Journal* 18 (2) (Fall): 247–62.

The paper uses Granger causality analysis to demonstrate that economic freedom “causes” economic well-being and economic well-being “causes” economic freedom. Additionally, the authors argue that economic well-being causes political freedom but that there is no causation flowing

from political freedom to economic well-being. The paper also finds no evidence of a casual relationship in either direction between economic freedom and political freedom. Indirectly economic freedom causes political freedom through its effect on economic well-being.

Economic Freedom of the World: 1975–1995 and the Freedom House index of political rights and civil liberties are the main data sources for institutional variables.

Ford, John B., Kiran W. Karande, and Bruce M. Seifert (1998). The Role of Economic Freedom in Explaining the Penetration of Consumer Durables. *Journal of World Business* 33 (1): 69–86.

“The study examines the link between economic freedom (a measure of government intervention) and the penetration of three durable goods (televisions, radios and automobiles) across countries.” Cites conclusions of *Economic Freedom of the World: 1975–1995*; uses other indexes of economic freedom for empirical work.

Goldsmith, Arthur A. (1997). Economic Rights and Government in Developing Countries: Cross-National Evidence on Growth and Development. *Studies in Comparative International Development* 32 (2) (summer): 29–44.

The paper “finds that developing countries that score better in protecting economic rights also tend to grow faster and to score higher in human development. In addition [the paper finds that] economic rights are associated with democratic government and with higher levels of average national income.”

Uses summary ratings from *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables.

Grubel, Herbert G. (1998). Economic Freedom and Human Welfare: Some Empirical Findings. *Cato Journal* 18 (2) (Fall): 287–304.

The paper compares economic freedom to income, growth, unemployment in the OECD, the UN Human Development Index, life expectancy, literacy, poverty, and income distribution. It finds that “economic freedom does not have a cost in terms of income levels, income growth, unemployment rates, and human development.”

Economic Freedom of the World: 1997 Annual Report is the main data source for institutional variables.

Gwartney, James, Randall Holcombe, and Robert Lawson (1998). The Scope of Government and the Wealth of Nations. *Cato Journal* 18 (2) (Fall): 163–90.

The paper examines the effect of the size of government in OECD countries upon economic growth. This paper draws on the authors’ Joint Economic Committee Study, *The Size and Functions of Government and Economic Growth*.

Makes reference to the general conclusions regarding economic freedom and income and growth as published in *Economic Freedom of the World: 1975–1995* and *Economic Freedom of the World: 1997 Annual Report*.

Gwartney, James, Robert Lawson and Randall Holcombe (1999). Economic Freedom and the Environment for Economic Growth. *Journal of Institutional and Theoretical Economics* 155 (4): 1–21.

This study examines the relationship between economic freedom and economic growth. The authors find that economic freedom is a “significant determinant of economic growth, even when human and physical capital, and demographics are taken into account.” The authors also test for causality. They find that increases in economic freedom lead to higher economic growth but not that higher economic growth leads to higher economic freedom.

Uses summary ratings from *Economic Freedom of the World: 1997 Annual Report* as one of a number of institutional variables.

Hanke, Steve H., and Stephen J.K. Walters (1997). Economic Freedom, Prosperity, and Equality: A Survey. *Cato Journal* 17 (2) (Fall): 117–46.

The article compares several institutional indexes for content and explanatory power: Gerald Scully's studies, The Fraser Institute's *Economic Freedom of the World*, Freedom House's *Economic Freedom Indicators*, The Heritage Foundation's *Indices of Economic Freedom*, The International Institute for Management Development's *World Competitiveness Yearbook 1996*, The World Forum's *Global Competitiveness Report 1996*. Compares liberty and prosperity, equality and foreign policy implications. They find that economic freedom is positively correlated with per-capita GNP.

Economic Freedom of the World: 1975–1995 is used as one variable in a comparison of a number of institutional variables.

Henderson, David (1998). *The Changing Fortunes of Economic Liberalism*. London: Institute of Economic Affairs.

A comprehensive review of the trends in economic liberalism in the last century. The book covers economic liberalism in thought and practice as well as discussing how the climate of political and popular opinion has both helped and constrained the development of liberal policy. One section uses the *Economic Freedom of the World* to discuss the progress made by countries engaging in economic reform and the appendix discusses the derivation, benefits, and limitations of the *Economic Freedom of the World*.

Economic Freedom of the World: 1975–1995 is the only quantitative source for institutional variables.

Islam, Sadequil (1996). Economic Freedom, per Capita Income and Economic Growth. *Applied Economics Letters* 3: 595–97.

Examines the effect of economic freedom on income and growth in high-, middle-, and low-income country sets and finds that economic freedom is significant for a sample of all countries but only in some subsets.

Uses the precursor to *Economic Freedom of the World*, *Measuring Economic Freedom*, by James Gwartney, Walter Block and Robert Lawson, a chapter in Stephen Easton and Michael Walker (eds.), *Rating Global Economic Freedom* (Vancouver: The Fraser Institute, 1992). *Measuring Economic Freedom* is the main data source for institutional variables.

Johnson, James P., and Tomasz Lenartowicz (1998). Culture, Freedom and Economic Growth: Do Cultural Values Explain Economic Growth? *Journal of World Business* 33 (4): 332–56.

The paper discusses which cultural values are associated with economic freedom, drawing on two international quantitative cultural indexes.

Uses the summary ratings from *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables.

Johnson, Simon, Daniel Kaufmann, and Pablo Zoido-Lobaton (1998). Government in Transition: Regulatory Discretion and the Unofficial Economy. *American Economic Review, Papers and Proceedings* (May): 159–239.

Empirically studies the effect of institutional quality on the share of the unofficial economy in GDP. Uses the component, Equality of Citizens under the Law and Access of Citizens to a Non-Discriminatory Judiciary, of *Economic Freedom of the World: 1997 Annual Report* as one of a number of institutional variables.

Jordan, Jerry L. (1997). Jobs Creation and Government Policy. *Cato Journal* 16 (3) (Winter): 287–94.

Argues that employment-creating initiatives or job-creation policies hinder the creation of new technology and the process of “creative destruction.” Also argues that the role of government

monetary intervention in the economy should be limited to creating stable monetary policy.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

La Porta, R., L. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1998). The Quality of Government. NBER Working paper no. 6727. Digital document: www.nber.org/papers/w6727.

The paper uses quantitative measures of government performance to determine if countries with different institutional structures have better or worse governments. Historical factors such as legal structures, religion, and ethnolinguistics are used to evaluate economic, political, and cultural theories of institutions and their impact on government intervention, public-sector efficiency, provision of public goods, size of government, and political freedom.

Components of *Economic Freedom of the World: 1975–1995* are used as government performance measures, with several other variables.

Lim, Linda Y.C. (1998). Whose “Model” Failed? Implications of the Asian Economic Crisis. *Washington Quarterly* 21 (3): 25–36.

The paper examines the conflicting interpretations of the role of governments and economic freedom in the success and subsequent crises in Asia.

Cites conclusions of *Economic Freedom of the World: 1975–1995*.

Mbaku, John Mukum, (1998). Constitutional Engineering and the Transition to Democracy in Post-Cold War Africa. *The Independent Review* 2 (4) (Spring): 501–17.

Discusses the constitutional guarantees necessary to secure economic freedom and why such guarantees are important. Focuses specifically on Africa.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

Mbaku, John Mukum, ed. (1999). *Preparing Africa for the Twenty-First Century: Strategies for Peaceful Coexistence and Sustainable Development*. Aldershot, UK and Brookfield, VT: Ashgate.

Chapter 6, A Balance Sheet of Structural Adjustment in Africa: Towards a Sustainable Development Agenda (John Mukum Mbaku) and chapter 12, Making the State Relevant to African Societies (John Mukum Mbaku) emphasize the constitutional guarantee of economic freedoms as the single most important way both to generate the wealth that Africans need to meet the challenges of the new century and to deal more effectively with the continent’s colossal debt.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

Milhaupt, Curtis (1998). Property Rights in Firms. *Virginia Law Review* 84: 1145–94.

Discusses how differences in property rights and corporate governance systems arise within differing institutional frameworks.

Uses the Property Rights component of *Economic Freedom of the World: 1975–1995* as one of a number of institutional variables in case-study analysis.

Nelson, Michael A., and Ram D. Singh, (1998). Democracy, Economic Freedom, Fiscal Policy and Growth in LDCs: A Fresh Look. *Economic Development and Cultural Change* 46 (4) (July): 677–96.

The study examines the effect of democracy on economic growth after controlling for a number of variables for the size of government and institutions. The study finds that it is not the redistributive policies of democratic governments that hinder development in developing countries but the lack of economic freedom.

Uses the precursor to *Economic Freedom of the World*, *Measuring Economic Freedom*, by James Gwartney, Walter Block and Robert Lawson, a chapter in Stephen Easton and Michael Walker (eds.), *Rating Global Economic Freedom* (Vancouver: The Fraser Institute, 1992). The summary ratings of *Measuring Economic Freedom* are used as one variable in a comparison of a number of variables for institutions and the size of government.

Norton, Seth W. (1998). Poverty, Property Rights, and Human Well-being: A Cross-national Study. *Cato Journal* 18 (2) (Fall): 233–45.

The paper compares property rights to indicators of development and determines that the “well-being of the world’s poorest inhabitants [is] sensitive to the cross-national specification of property rights.” The paper shows that well-specified property rights enhance the well-being of the world’s most impoverished.

Economic Freedom of the World: 1997 Annual Report and the Heritage Foundation’s *Indices of Economic Freedom* are the main data source for institutional variables.

Norton, Seth W. (1998). Property Rights, the Environment, and Economic Well-Being. In Peter J. Hill and Roger E. Meiners (eds.), *Who Owns the Environment* (Rowman & Littlefield): 37–54.

Investigates whether countries with better property rights have better performance on environmental measures.

Uses the summary ratings of *Economic Freedom of the World: 1975–1995* as one of four measures used as proxies for property rights.

Oi, Walter (1999). The Hearty and Cheery State. *Contemporary Economic Policy* 17 (1) (January): 138–46.

Argues that human capital is a consequence of growth, not a cause, and that economic freedom allows the best chance for economic progress.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth.

Park, Walter G., and Juan Carlos Ginarte (1997). Intellectual Property Rights and Economic Growth. *Contemporary Economic Policy* 15 (July): 51–61.

The authors have compiled an index of intellectual property rights, and examine its effects on growth and the factors of production (investment, schooling, and R&D). “The paper finds that IPRs affect economic growth indirectly by stimulating the accumulation of factor inputs like R&D and physical capital.”

Uses summary ratings of *Economic Freedom of the World: 1975–1995* as a control variable for market institutions in the analysis.

Rose, Andrew (2000). One Money, One Market: Estimating the Effect of Common Currencies on Trade. *Economic Policy* (forthcoming). Digital document: <http://haas.berkeley.edu/~arose/Grav.pdf> (December 1999).

Investigates the effects of exchange-rate volatility and currency unions on international trade. The author uses the summary ratings to test the sensitivity of his model of trade between nations. Finds a statistically significant relationship between trade among nations and economic freedom.

Uses the summary ratings from *Economic Freedom of the World: 1997 Annual Report* as one of a number of variables.

Vamvakidis, Athanasios (1998). Explaining Investment in the WAEMU [West African Economic and Monetary Union]. International Monetary Fund, working paper WP/98/99.

Relates differences in investment as a share of GDP within the West African Economic and Mone-

tary Union to differences in economic freedom using fixed and random-effects models across time. *Economic Freedom of the World: 1975–1995* is the main data source for institutional variables.

Vásquez, Ian (1998). Official Assistance, Economic Freedom, and Policy Change: Is Foreign Aid Like Champagne? *Cato Journal* 18 (2) (Fall): 275–86.

Makes reference to the general conclusions of *Economic Freedom of the World: 1997 Annual Report* regarding economic freedom and income and growth and argues that foreign aid is propping up countries that are not economically free. Mr Vásquez also tests the notion that aid agencies target pro-growth policies. He finds that for the countries where economic freedom declines or does not improve, foreign aid actually increases (19 of 20 cases). As well, in over one-half of these countries GDP per capita declines.

Makes reference to the general conclusions of *Economic Freedom of the World: 1997 Annual Report* regarding economic freedom and income and growth.

Voigt, Stefan (1997). Positive Constitutional Economics: A Survey. *Public Choice* 90: 11–53.

Distinguishes between normative and positive constitutional economics, and between various concepts of the constitution.

Reference to *Economic Freedom of the World: 1975–1995* in a footnote.

Voigt, Stefan (1998). Making Constitutions Work: Conditions for Maintaining the Rule of Law. *Cato Journal* 18 (2) (Fall): 191–208.

Makes reference to the general conclusions of *Economic Freedom of the World: 1975–1995* regarding economic freedom and income and growth and discusses conditions under which the rule of law can be maintained.

Wu, Wenbo, and Otto A. Davis (Forthcoming). Two Freedoms, Economic Growth and Development: An Empirical Study. *Public Choice*.

“The main results are: given economic freedom, the rate of economic growth is independent of political freedom and the level of income; given the level of income, political freedom is independent of economic freedom and the growth rate. The analysis suggests the fundamental effects of economic freedom in fostering economic growth and a high level of income as the condition of a high degree of political freedom.” The article also uses principle component analysis to weight the results published in *Economic Freedom of the World*.

Economic Freedom of the World: 1975–1995 and Freedom House’s *Economic Freedom Indicators* on political right and civil liberties are the main data sources for institutional variables.

Wu, Wenbo, and Otto A. Davis (1999). The Two Freedoms in a Growth Model. *Journal of Private Enterprise* 14 (2): 115–43.

The paper develops a theoretical model describing how economic and political freedoms might impact economic growth, then estimates the relative impact of the two on growth in the world as a whole, and for subsets of developing and developed nations.

Summary ratings from *Economic Freedom of the World: 1975–1995* provide a key institutional variable.

Yago Glenn, L. Ramesh, D. Brumbaugh, and J. Barth (1999). *Capital Access Index: Deconstructing Global Financial Architecture: Global Capital Access and Policy Backlash*. Santa Monica, CA: Milken Institute.

The paper focuses on the institutional structures that are involved in capital flows, globalization, and financial crisis. The *Global Capital Access Index* is presented as a means of comparing the financial markets of different countries.

Components of *Economic Freedom of the World: 1975–1995* used in compiling the *Global Capital Index*.

