# **Online Appendix**

to

# POLITICAL INSTITUTIONS, INTERTEMPORAL COOPERATION, AND THE QUALITY OF PUBLIC POLICIES

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The online applendix describes the method to construct the indices, the country groups, the dependent variables, and the independent variables.

#### A. Method for index construction

All of the indexes created for this project were calculated based on the average of their respective components. Before calculating this average some variables were rescaled so that their values would go from low levels of the measure of interest to high ones. Observations for which data was missing, but for which data on at least one component of an index was available, had data imputed according to the following procedure:

- 1. Create new variables, one for each component of the index, with values corresponding to how many standard deviations away from the mean (of the given component) each observation is.
- 2. Impute the average standard deviation (calculated over the components of the index) to the missing data.
- 3. Transform these new variables back to the original scale.
- 4. Rescale all components (now with imputed values in place of missing ones) to range between 0 and 4. This method was chosen so that imputed data would take the position of each country vis-a-vis other countries in each of the distributions into account.

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## **B.** Country Groups

Developed Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

East Asia/Pacific: Cambodia, China, Hong Kong China, Indonesia, Democratic Republic of Korea, Republic of Korea, Laos, Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Singapore, Taiwan, Thailand and Vietnam.

Europe and Central Asia: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Serbia and Montenegro, Slovak Republic, Slovenia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

LatinAmerica/Caribbean: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela.

Middle East and North Africa: Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Saudi Arabia, Syria, Tunisia, UnitedArabEmirates, Yemen.

South Asia: Afghanistan, Bangladesh, India, Nepal, Pakistan Sri Lanka.

Sub Saharan Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Cote d'Ivoire, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

## C. Dependent variables

#### 1.1 Policy Stability

The stability index is the average of the following four variables:

- fraser1 all: Standard deviation of the detrended Fraser Index of Economic Freedom (quadratic trend) (1999-2004). This variable had its scale reversed to compute the index. The reverse version is fraserSDallr.
- gcr chg1: Global Competitiveness Report (2002). This variable measures whether legal or political changes over the past five years have (ranging from 1=severely undermined your firm's planning capacity, to 7=had

no effect).

- gcr commit: Global Competitiveness Report (1998, 1999, 2000, 2002). Measures whether new governments honor the contractual commitments and obligations of previous regimes (ranging from 1=not true to 7=true)
- Govt consistency: Profils Institutionnels (2006). Question A5101 where experts evaluate the "Consistency and continuity of government action in economic matters", (ranging from 1=low levels of capability, consistency, authority, rapidity, confidence to 4=high levels).

# 1.2 Policy Adaptability

The adaptability index is based on the following three variables:

- Bti adapt: The Bertelsmann Transformation Index (BTI) from 2006. Questions comprising BTIs adaptability index include the ability of the political leadership to act flexibly, political leaders capability for learning, and whether political leaders can replace failing measures with innovative policy (ranging from 1=lowest/worse values according to expert ratings to 10 higher/better)
- State effective response: Columbia University State Capacity Survey. Question 29 where experts (from academia, government and media) rate the states ability to respond effectively to domestic economic problems, originally on a scale from 1-10, 10 being highest/best values.
- Decision making capacity: ProfilsInstitutionnels 2006. Item A5100 where MINEFI and AFD employers and experts evaluate the decision-making capacity of the political authorities in economic matters (responsibility, rapidity, etc)" ranked 1 to 4, 4 being highest.

# 1.3 Policy Coordination and Coherence

The coordination and coherence index was based on two variables:

- cscscoord: Columbia Universitys State Capacity Survey (2003). Question 18 rating the effectiveness of coordination between the central government and local-level government organizations. Ranging from 0= low, to 10= high.
- a508: ProfilsInstitutionnels-database (2006). Item A508 rating Co-ordination between ministries and within the administrations. Measures level of coordination (ranging from 1= low level of co-ordination and cooperation to 4 = high level of co-ordination and co-operation).

#### 1.4 Policy Implementation and Enforcement

This index was created based on the following sources:

- gcrminwage: GCR (2002. Expert evaluation of whether the minimum wage set by law in the country is (ranging from1=never enforced, 7=strongly enforced)
- gcr tax: GCR (2002). Expert evaluation of whether tax evasion in the country is (ranging from 1=rampant, 7=minimal)
- gcrenv: GCR (2002-2006). Expert evaluation of whether environmental regulation in the country is

- (ranging from 1=not enforced or enforced erratically, 7=enforced consistently and fairly)
- btiie: BTI (2006). Analysts estimate of the following question: Does the government implement its reform policy effectively? (ranging from 0=low to 10=high)
- cscs21: Columbia University State Capacity Survey (1990, 1999, 2000, 2002). Question 21, rating the states ability to formulate and implement national policy initiatives. (ranging from 0=low to 10=high)
- cscs22: Columbia University State Capacity Survey (1990, 1999, 2000, 2002). Question 22, rating the states effectiveness at collecting taxes or other forms of government revenue (ranging from 0=low to 10=high)
- eiu\_efficiency: EIU (2006). Expert assessment of the effectiveness of the political system in formulating and executing policy. 0=very good, 4= very poor (rescaled so that higher values represent higher levels of effectiveness).

## 1.5 Policy Efficiency

The efficiency index was built based on the following two variables:

- gcr spend: GCR (2002, 2005, 2006). Expert rating of the composition of Public Spending and whether it is wasteful (ranging 1= extremely wasteful; 7=highly effective)
- bti efficiency: BTI (2006). Expert evaluation of whether the government makes efficient use of available economic and human resources (ranging from 1=low/worse values according to expert ratings to 10 high/better)

## 1.6 Public Regardedness of Policies

The public regardedness index, publicreg, was created based on the following three variables:

- gcrfav: GCR (average of 2002, 2005, 2006). Expert rating of whether when deciding upon policies and contracts, government officials (1=usually favor well-connected firms and individuals, to 7=are neutral among firms and individuals).
- govtsoc: GCR (2002). Expert evaluation of whether government social transfers go primarily to (1=poor people, through 7=rich people). This variable had its scale reversed to compute the index. The reverse version is govtsocr.
- ticpi: Transparency International Corruption Perceptions Index (2005). Perceptions of the degree of corruption as seen by business people and country analysts and ranges between 10 (highly clean) and 0 (highly corrupt).

#### 1.7 Policy Index

Policy stability, policy adaptability, policy coordination and coherence, policy implementation and enforcement, policy efficiency and public regardedness of policies have been normalized to take values between 0 and 4, with 4 representing the best possible score. In order to construct an overall Policy Index, we use the simple average of the

different policy characteristics (ranging 0=low to 4=high).

## D. Independent variables

- 2.1 System of Government: Database of Political Institutions, average over data from 1990 to 2004 (or 1980 to 2004 in system80). (0=Presidential, 1=Assembly elected President, 2=Parlamentary)
- 2.2 Constraints on executive power: University of Maryland Polity IV Project, Political Regime Characteristics and Transitions, average of data from 1990-2003. This measure of political constraints estimates the feasibility of policy change (the extent to which a change in the preferences of any one actor may lead to a change in government policy). It is constructed by identifying the number of independent branches of government with veto power over policy change and is then modified to take into account the extent of alignment across branches of government using data on the party composition of the executive and legislative branches. (1=Unlimited Authority, 2=Intermediate category, 3=Slight to moderate limitations)
- 2.3 Checks and balances: Database of Political Institutions, 1990- 2004. Equals one in countries where legislatures are not competitively elected, considered countries where only the executive wields a check. Incremented by one if there is a chief executive (it is blank or NA if not). Incremented by one if the chief executive is competitively elected. Incremented by one if the opposition controls the legislature (ranging from 1=unlimited authority to 7=executive parity or subordination)
- 2.4 Proportional Representation Systems: equals 1 if yes, 0 if no "1" if candidates are elected based on the percent of votes received by their party and/or if our sources specifically call the system "proportional representation".

## 2.5 Congressional Policymaking Capabilities:

Created similarly to other indexes based on two variables:

- Legislative efficiency: GCR (2003-2005). Effectiveness of lawmaking bodies (1= very ineffective to 7 = very effective).
- Confidence in Parliament (confidence parliament). Shared Global Indicators Cross-national Database/World Values Survey values Four-Wave Integrated Data File, 1981-2004: How much confidence do you have in Parliament? A great deal of confidence (1), quite a lot of confidence (2), Not very much confidence (3) or none at all (4)?

#### 2.6 Party System Institutionalization

Created by same method use for all indexes based on the following five variables:

- Stable, moderate, rooted party system: BTI 2006. To what extent is there a stable, moderate and socially rooted party system to articulate and aggregate societal interests? Ranked from 1 to 7, higher numbers

- indicating higher levels of a stable party system.
- Confidence in Political Parties. Shared Global Indicators Cross-national Database/World Values Survey. How much confidence do you have in the Political Parties? A great deal of confidence (3), quite a lot of confidence (2), Not very much confidence (1) or none at all (0)?
- Vote Volatility: All data follows Pederson (1984) method for calculating vote volatility: Volatility is calculated by subtracting the percentage of the vote/seats won by every party in an election from that won in the previous election, taking the absolute value of this result, summing the results for all parties, and then dividing this total by two. Sources: Data for Argentina, Australia, Austria, Belgium. Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Czech Republic, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, South Korea, Latvia, Lithuania, Mexico, Netherlands, Norway, Philippines, Poland, Portugal, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, Taiwan, Thailand, Ukraine, UK, US, and Venezuela come from Mainwaring and Zoco (2007). Data for Benin, Burkina Faso, Botswana, Cameroon Malawi, Cote dIvoire, Congo, Central African Republic, Gabon, Gambia, Ghana, Kenya, Lesotho, Mali, Madagascar, Mauritania, Mauritius, Namibia, Niger, Senegal, South Africa, Togo, Zambia, and Zimbabwe come from Kuenzi and Lambright (2001). Data for Latin American countries not listed under Mainwaring and Zoco (2007) come from Jones (2005).
- Party Age. Database of Political Institutions, 1980/90- 2004. The average of the ages of the 1st government party (1GOVAGE), 2nd government party (2GOVAGE), and 1st opposition party (1OPPAGE), or the subset of these for which age of party is known.
- Fairness of Elections (fair elections) source: ProfilsInstitutionnels-database 2006. To what extent are political leaders determined by general, free and fair elections? Ranked from 1 to 10, higher numbers indicating freer/fairer elections. Freedom and legality of elections, (If no elections, 0; if elections exists, from 1 = little freedom or legality to 4 = high level of freedom and legality).

#### 2.7 Judicial independence

This index was created using the same method used in all other indexes and based on the following variables:

- gcr judicial: GCR (2001 through 2006): The judiciary in the country is independent and not subject to interference by the government and/or parties to disputes (ranging from 1=not true, to 7=true)
- btijud: BTI (2006). Does an independent judiciary exist? (ranging from 1=low to 10=high)
- fraserjud: Fraser Index (1995 2003). Rating of independence of judiciary (ranging from 0=low to 10=high)

# 2.8 Civil service capacity

This index was created using the same method used in all other indexes and based on the following variables:

- merit bur: Columbia University State Capacity Survey (CUD, 1990-2002). Bureaucratic Merit Index, Question 14. Measures the degree to which effective guarantees of professionalism in the civil service are in place and the degree to which civil servants are effectively protected from arbitrariness, politicization, and rent-seeking. Index on a scale of 0-10, with higher levels indicating more autonomous bureaucratic

- systems. Average of all years for which data is available.
- fca bur: Columbia University State Capacity Survey (CUD, 1990-2002). Bureaucratic Functional Capacity Index, Question 13. Measures the degree to which the bureaucracy has salary compensation systems and systems for evaluating the performance of public officials. Index on a scale of 0-10, with higher levels indicating systems with higher technical capacities and more incentives for performance. Average of all years for which data is available.
- effic bur: Columbia University State Capacity Survey (CUD, 1990-2002) Bureaucratic Efficiency Index, Question 16. Measures the degree to which the bureaucracy is efficient in assigning human capital, given a fiscal policy constraint. Index on a scale of 0-10, with higher levels indicating more efficient bureaucratic systems. Average of all years for which data is available.
- icrg bur International Country Risk Guide "Bureaucracy Quality" rating (1984-2001, average of values). High points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. In these low-risk countries, the bureaucracy tends to be somewhat autonomous from political pressure and to have an established mechanism for recruitment and training. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions. (ranging from 0=low to 4=high)