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Empirical Determinants of Government Efficiency

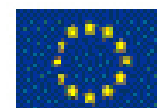
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Motivation

- Consensus: efficient governments can make a difference to a country's economic performance
- Questions:
 - How can we measure such efficiency?
 - Why are some governments much more efficient?
 - Can policy choices affect government quality?



Motivation

- We will try to answer this questions
- It is linked with the literature on:
 - Government efficiency and quality of institutions (La Porta et al.; Paolo Mauro)
 - Government efficiency and economic performance (Robert Barro; Zusana Brixiová)
 - Income distribution and economic performance (Alberto Alesina and Dani Rodrik)



Goals

- Contribution to the shortcomings of the literature with respect to an empirical approach to government performance
- Identifying objective and quantifiable measures of government efficiency
- Testing possible determinants of such quality



Definition

- We first need to define what government efficiency means in this context.
- In the related literature:
 - *“a good government stands for good for capitalistic development”* (La Porta et al)
 - This means that a good government protects property rights, intervenes little and taxes lightly; it has a small dimension and a well-functioning bureaucracy free of corruption; it is politically free and sustained by a democracy; it provides public goods of high quality and it is efficient.



Definition

- Problems with this definition:
 - It has an ideological content (taxes lightly for example)
 - Some proxies (like corruption) can be viewed as causes
 - Quality of public goods is as difficult to measure as quality of government it self.



Definition

- We are seeking for a easily understood as well as quantifiable and objective measure of government quality

“A good government is a government that provides services in essential sectors like health and education in na eficiente way, i.e., where the relation between output indicators and the amount of resources necessary to achieve it is high”



Our Indicators

We will use the following indicators:

$$\frac{100 - \text{infant mortality rate}}{\text{Public health expenditures as a \% of GDP}}$$

$$\frac{100 - \text{drop-out rate}}{\text{Public education expenditures as a \% of GDP}}$$

$$\frac{100 - \text{iliteracy rate}}{\text{Public education expenditures as a \% GDP}}$$



Determinants

- Following the related literature (La Porta et al.) we will consider three groups of determinants:
 - Economic /Social: institutions are created whenever the benefits of their existence are greater than the costs of their creation
 - Political: those in power will shape policies and institutions to allow them to remain in power and transfer resources to themselves
 - Cultural: societies have beliefs that induce collective actions and make certain kind of behaviors more probable



Economic/Social Determinants

- Per capita GDP → Economic
 - % Urban Population
 - Age structure of the population
 - Sectorial structure of employment
 - Trade as a % of GDP
 - Gross foreign direct investment
 - Total government expenditures → Size of Government
- Level of development
- Degree of Openness
-



Political Determinants

- Index of Political Freedom
- Index of Law and Order Tradition
- Index of Ethnic Fractionalization
- Gini Index
- Dummy Presidential/Parliamentary
- Dummy Majoritarian/Proportional

Distortions to the functioning of political institutions

Different groups different interests

Type of political institutions



Cultural Determinants

- Index of Religious Fractionalization
- Dummy for each of the main religious confessions
(Catholic, Protestant and Muslim)
- Dummy for the legal system
(English, French, German, Scandinavian and Socialist)



Regression Results

		irpse				dorpse				mrihepu			
		Regression1		Regression2		Regression1		Regression2		Regression1		Regression2	
		n	R ²	n	R ²	n	R ²	n	R ²	n	R ²	n	R ²
		tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.
Constant loggdppc ge			-0.5594		52.50268		63.49847		62.33876		-41.66377		-31.58269
		1.84 ^c	11.48625	7.69 ^a	4.46577	10.91 ^a	3.61903	8.29 ^a	3.016412	13.22 ^a	15.23214	9.60 ^a	12.46254
				4.62 ^a	0.17806			4.91 ^a	0.212425			3.04 ^a	0.406648



Regression Results

- Main Results:

An increase in per capita income will lead to an improvement in government quality.

The higher the general expenditures are the more efficient a government should be



Regression Results

- Other Results:
 - Urban Population: where relevant it has a positive effect on government efficiency
 - Age structure only relevant for the health sector
 - Employment structure: the more agricultural oriented the less efficient the government will be; excessive concentration on services is not good for government efficiency
 - GFDI has no relevance in government efficiency but trade has a positive effect



Regression Results

- Other Results:
 - At least one of the indexes of political functioning has a positive effect on government efficiency
 - We should conclude that evenly distributed incomes and ethnically homogenous populations built up a trustful society that enhances government quality. Gini and Ethnical indexes statistically not relevant.
 - Variables concerning type of political regime not relevant




Regression Results

- Other Results:
 - Religious fractionalization has a positive effect on government efficiency.
 - Religious dummies seem to have no relevance in determining government performance
 - Legal system seems to have no bearing in a government performance



An alternative Regression

- Following (Oliveira) there is another interesting determinant of government quality  Public investment in public capital
- According to the referred paper we should have a quality production function like:

$$q_t = (k_{gt})^\psi$$



An alternative Regression

- We shall now see if that relation is supported by the data.
- We use as control variables the ones that performed better in the previous regressions
- We will estimate the following equation:

$$\ln q_t = \psi \ln(k_{gt})$$



An alternative Regression

		logirpse				logdorpse				logmrihepu			
		Regression1		Regression2		Regression1		Regression2		Regression1		Regression2	
		n	R ²	n	R ²	n	R ²	n	R ²	n	R ²	n	R ²
		tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.	tobs	Coeff.
logKgpc loggdppc ge		24	81.98	23	98.92	93	72.21	92	98.48	44	75.07	43	99.53
		12.59 ^a	2.293127	-2.15 ^a	-0.534022	12.38 ^a	0.7782233	-3.54 ^a	-0.107984	8.91 ^a	0.6752071	-2.46 ^a	-0.0629
				8.23 ^a	0.4382453			21.15	0.3601313			33.82 ^a	0.2957166
				-0.28	-0.002139			-3.78 ^a	-0.010638			-0.72	-0.001665



An alternative Regression

- We can see that we have a positive and significant relation between government efficiency and per capita public capital. This relation survives the inclusion of the control variables in terms of significance although the sign of the estimate changes. This might be due to multicollinearity between public capital and GDP



Conclusions

- Two clear empirical determinants of government quality: Wealth and Dimension
- Political rights and law and order tradition have a positive effect on government efficiency
- Religious fractionalization has some bearing on government efficiency : more diversity more efficiency



Conclusions

- More urban population translates into more government quality
- An increase in the agricultural labor force leads to a worse performing government
- Existence of several groups (ethnic or income) does not seem to have a consistent effect on performance
- We found no interesting and significant relation between the stock of public capital and government efficiency

