

“Economic Prosperity and Role of Institutional Quality: Evidence from Selected Developing Economies”

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OUTLINE

- Introduction
- Significance of the Study
- Model and Methodology
- Data and Variable Construction
- Results and Discussion
- Conclusion

Introduction

Background

➤ **Endowment View Models/ Neo-Classical Growth Model.**

➤ **Institutional view Model.**

North and Thomas (1973): Fundamental explanation of comparative growth is differences in institutions framework.

“The factors we have listed (innovations, economies of scale, capital accumulation etc.) are not causes of growth’ they are growth”

Why some countries are poorer than others is closely related to the question of why some countries have much “worse institutions” than others.

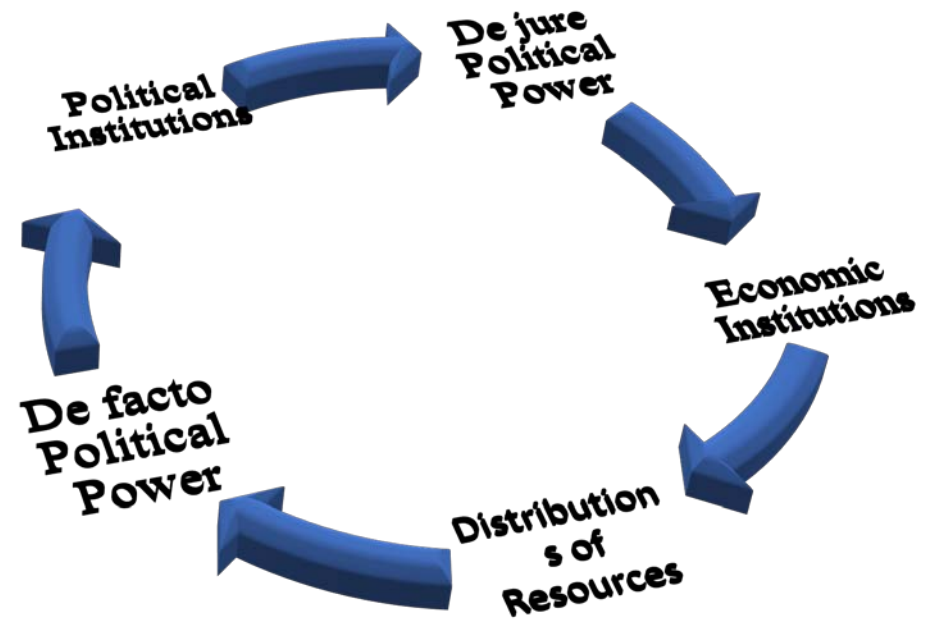
North (1990); Defines

“Institutions are the rules of the game in a society or; more formally, are the humanly devised constraints that shape human interaction.”

Introduction

Problem Statement

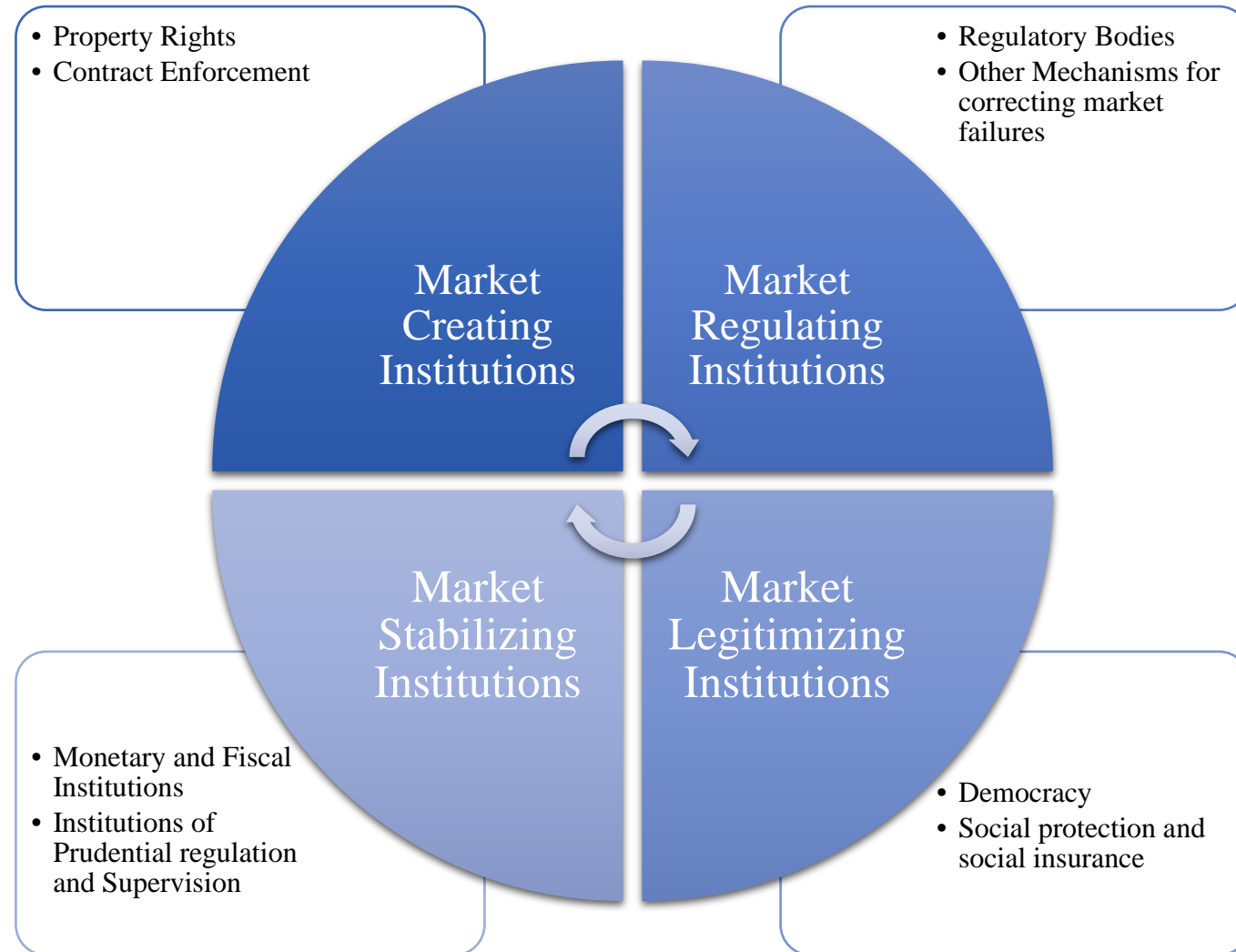
- Scholars and Policies makers are unanimously agree upon the importance of institutions in economic growth.
- Quantificational Problem of Institutions (Indicator/Proxy)



Introduction

Significance of the Study

Taxonomy of Institutions By Dani Rodrik (2005)



Introduction

Research Objectives

- To analyze the impact of individual Institutional Indicators on Economic Growth
- To evaluate the overall role of Institutions in the Economic performance by constructing Institutional quality index
- To suggest some Policy Recommendations on the basis of our empirical findings.

Model and Methodology

Model Specification

- North and Thomas (1973) Growth Model;

$$Y(t)=F(K(t), A(t)L(t))$$

$$A(t)= \text{Institutions Quality}$$

- Baseline Model:

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 INT_{it} + \beta_3 PK_{it} + \beta_4 HK_{it} + \theta X' + \epsilon_{it}$$

Where: Y_{it} indicates the log of Per Capita GDP, at time t for i numbers of countries and Y_{it-1} is a lag dependent variable of Per Capita GDP.

INT_{it} shows the Institutional variable/ Institutional quality index

PK_{it} Physical capital, HK_{it} Human capital, X' is the vector of control variables and ϵ_{it} represent the error term.

Model and Methodology

Model Specification

➤ Market Creating Institutions

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 MCI_{it} + \beta_3 PK_{it} + \beta_4 HK_{it} + \theta X' + \epsilon_{it} \dots \dots \dots (1.4.1)$$

➤ Market Regulating Institutions

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 MRI_{it} + \beta_3 PK_{it} + \beta_4 HK_{it} + \theta X' + \epsilon_{it} \dots \dots \dots (1.4.2)$$

➤ Market Stabilizing Institutions

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 MSI_{it} + \beta_3 PK_{it} + \beta_4 HK_{it} + \theta X' + \epsilon_{it} \dots \dots \dots (1.4.3)$$

➤ Market Legitimizing Institutions

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 MLI_{it} + \beta_3 PK_{it} + \beta_4 HK_{it} + \theta X' + \epsilon_{it} \dots \dots \dots (1.4.4)$$



Econometric Technique

➤ Panel Data set ;

(less collinearity, More degree of freedom, more variability and more efficiency)

➤ Pooled Ordinary Least Square Model (Pooled OLS)

$$Y_{it} = \alpha_i + \beta X_{it} + \mu_{it}$$

➤ Fixed Effects Model (FEM)

$$Y_{it} = \alpha + \beta X_{it} + \mu_{it}$$

➤ Random Effects Model (REM)

$$Y_{it} = \alpha_i + \beta_i X_{it} + \mu_{it}$$

▪ Hausman Specification (1978)

➤ Generalized Method of Moments (GMM)

➤ Arellano-Bover(1995)/ Blundell and Bond (1998)

Data and Construction of Variables

- The data is taken over the period of **2005-2016** for **42** different Economies.
- The data for Per-Capita GDP and data for control variables are obtained from World Development Indicator (WDI).
- Whereas the data of Property Rights, Regulatory Bodies, Other Mechanisms for Correcting market failures, Monetary and Fiscal Institutions, Institutions of Prudential Regulations and Supervision and Social Protection and Social insurance are taken from worldwide Governance Indicators (WGI).
- The data of Contract Enforcement is taken from Doing Business Project developed by World Bank Group.
- Data for Democracy are extracted from Freedom House.
- The Institutional Quality index is constructed by Principal Component Analysis (PCA) Technique.

Estimation results based on GMM.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Market Creating Institutions		Market Regulating Institutions		Market Stabilizing Institutions		Market Legitimizing Institutions	
L.lngdp	0.960***	0.968***	0.975***	0.987***	0.960***	0.957***	0.983***	0.962***
	(0.00706)	(0.00552)	(0.00224)	(0.00232)	(0.00457)	(0.00502)	(0.00214)	(0.00749)
Tv	0.000354***	0.000225***	0.000428***		0.000483***	0.000433***		0.000391***
	(2.99e-05)	(5.48e-05)	(6.11e-05)		(5.18e-05)	(3.64e-05)		(4.23e-05)
Popg	-0.0157***	-0.0163***	-0.0151***	-0.00982***	-0.0150***	-0.0168***	-0.00917***	-0.0142***
	(0.00340)	(0.00258)	(0.00369)	(0.00218)	(0.00307)	(0.00380)	(0.00143)	(0.00349)
Edu	0.000546***	0.000539***	0.000370***	0.000139	0.000219***	0.000493***	0.000259***	0.000353***
	(9.89e-05)	(0.000116)	(7.48e-05)	(8.87e-05)	(3.35e-05)	(4.89e-05)	(4.45e-05)	(7.85e-05)
inv	0.000804***	0.00111***	0.000625***	0.00155***	0.00113***	0.000765***	0.00150***	0.00100***
	(6.94e-05)	(0.000150)	(0.000176)	(4.13e-05)	(4.74e-05)	(8.79e-05)	(6.03e-05)	(4.50e-05)
pr	0.00479**							
	(0.00204)							
ce		0.000243***						
		(0.000258)						
rb			0.0106***					
			(0.00908)					
inf				-0.00109***			-0.000973***	
				(4.41e-05)			(4.75e-05)	
imf				0.00367*				
				(0.00196)				
mfi					0.0294***			
					(0.00507)			
ipr						0.0103***		
						(0.00191)		
dem							0.00374***	
							(0.000631)	
spi								0.0122***
								(0.00221)
Constant	0.246***	0.224***	0.164***	0.0786***	0.160***	0.246***	0.0930***	0.206***
	(0.0479)	(0.0362)	(0.0149)	(0.0194)	(0.0329)	(0.0365)	(0.0128)	(0.0512)
Observations	164	166	164	162	164	164	164	164
Number of Country code	34	34	34	34	34	34	34	34
Number of Instruments	26	17	28	19	29	24	23	26
Arellano-Bond test for AR (1) P-value	(0.013)	(0.018)	(0.026)	(0.018)	(0.015)	(0.019)	(0.029)	(0.019)
Arellano-Bond test for AR (2) P-value	(0.791)	(0.96)	(0.879)	(0.768)	(0.808)	(0.779)	(0.892)	(0.7170)
Hansen P-value	(0.817)	(0.604)	(0.712)	(0.659)	(0.599)	(0.836)	(0.701)	(0.884)

Dependent variable is growth in per capita GDP (lngdp). Standard errors in parentheses. Significance level denote by *** p<0.01, ** p<0.05, * p<0.

The impacts of Institutions quality on Per Capita GDP. OLS, FEM and GMM estimations results.

	(1)	(2)	(3)
VARIABLES	Pooled OLS	FEM	GMM
LDV	0.988***	0.980***	0.980***
	(0.00626)	(0.00854)	(0.00301)
Inst	0.00159	0.000518	0.0142***
	(0.00483)	(0.00628)	(0.000802)
Edu	0.000205	0.000150	0.00149***
	(0.000221)	(0.000301)	(0.000169)
Popg	-0.00376	-0.00944	-0.0465***
	(0.00536)	(0.00723)	(0.00437)
Inf	0.000987**	0.000939**	-0.000217*
	(0.000488)	(0.000472)	(0.000118)
inv	0.000972**	0.00135***	0.00207***
	(0.000391)	(0.000482)	(0.000106)
Constant	0.0846*	0.140**	0.292***
	(0.0441)	(0.0591)	(0.0269)
Observations	160	160	159
R-squared	0.997		
Number of country code	34	34	34
Number of Instruments			28
Arellano-Bond test for AR (1) P-value			0.029
Arellano-Bond test for AR (2) P-value			0.638
Hansen P-value			0.892

Dependent variable is growth in per capita GDP (lngdp). Standard errors in parentheses. Significance level denote by *** p<0.01, ** p<0.05, * p<0.

Conclusion

- Institutions have a Significant and Positive Impact on the Economic Growth.
- Market Stabilizing Institutions and Market legitimizing Institutions have extensive role in determination of Economic Growth relative to other Institutions.
- Monetary and Fiscal institutions have a defined role in business cycle stabilization.
- Similarly, Improvement in the Regulatory and legal environment lead to economic growth.
- Each type of Institution have its own individual role in Economic Growth acceleration.



Thank You