

What Fundamentally Drives Growth?

Revisiting the Institutions and Economic Performance Debate

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Fundamental Determinants of Economic Growth

“What a country needs to develop is discipline more than democracy. The exuberance of democracy leads to indiscipline and disorderly conduct which are inimical to development.”

- Economic growth ultimately driven by “fundamental” determinants
 - Physical geography (Diamond 1997)
 - Economic integration (Frankel & Romer 1999)
 - Institutional quality (Rodrik *et al* 2004)

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What Sorts of Institutions Matter?

“[T]he quality of institutions trumps everything else. . . [i]nstitutions trump geography and openness.”

- What kinds of institutions?
 - . . . Property rights vs. contracting (Acemoglu & Johnson 2005)
 - . . . Parliamentary vs. presidential (Persson & Tabellini 2006)
 - . . . Quality vs. constraints (Glaeser *et al* 2004)
- Political versus political-economic
 - Political guide societal representation
 - Political-economic govern economic norms and rules

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Related Theoretical Literature

- Mixed theoretical predictions on democracy and growth
 - Raise growth by constraining actions of corrupt officials (Rivera-Batiz 2002) (+)
 - Spurs investment in human capital accumulation (Acemoglu & Robinson 2000) (+)
 - Induce distortionary taxation (Alesina & Rodrik 1994) (-)
 - Produce inefficiencies due to special interest pressures (Parente 2006) (-)

Related Empirical Literature

- Mixed empirical findings on democracy and growth
 - Political freedom and constraints (Henisz 2000)
 - Political regime changes (Persson & Tabellini 2007)
 - Rule of law/democratic institutions (Butkiewicz & Yanikkaya 2006)
- 1/3 papers find positive effect, 1/3 papers find negative effect, 1/3 papers find no effect
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Decomposing the Effects of Institutions

- Decompose institutions into political-economic and political to determine impact on economic performance
- Utilize cross-sectional and panel datasets with attention to endogeneity issues

Fundamentals-Based Growth Regression

$$\log y_{it} = \alpha y_{i,t-1} + \beta_0 + \beta_1 INS_{it} + \beta_2 INT_{it} + \beta_3 GEO_i + \beta_4 DEM_{it} + \varepsilon_{it},$$
$$\varepsilon_{it} = \mu_i + \eta_{it}$$

[▶ Details](#)

- Identification of static model
 - IV with exogenous instruments
- Identification of dynamic model
 - System GMM with lagged endogenous variables

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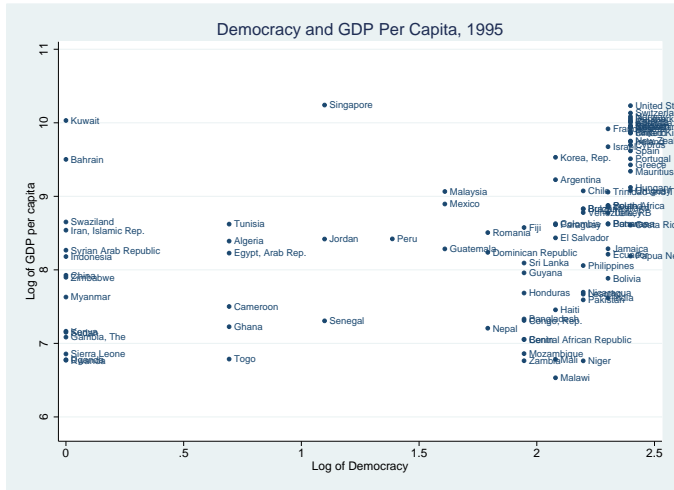
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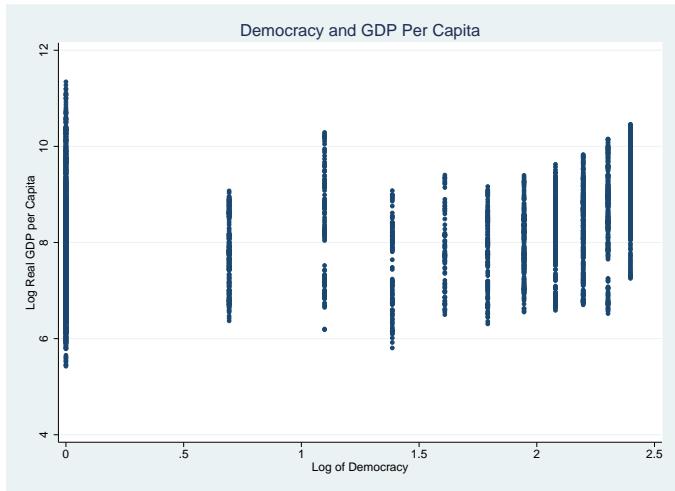
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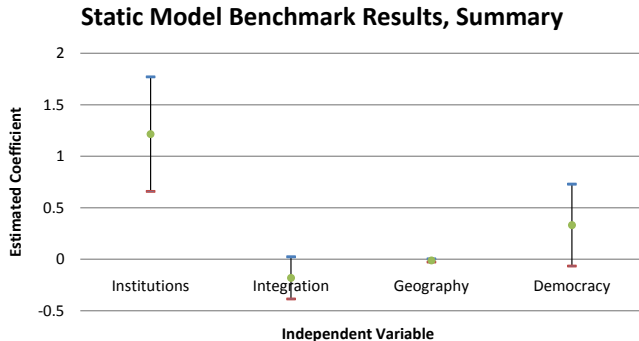
Democracy and GDP per Capita, 1995



Democracy and GDP per Capita, Full Sample



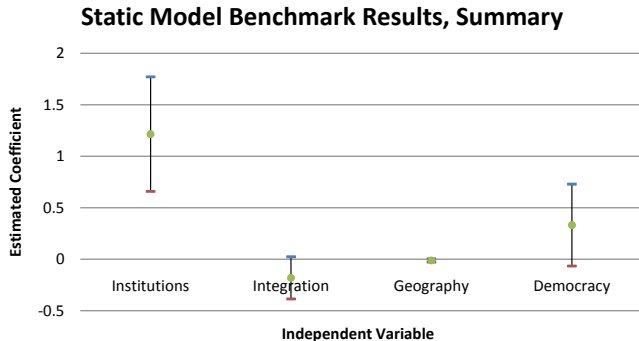
Static Model Findings



Result

Institutional quality is positive and significant, while democracy is positive but mostly insignificant

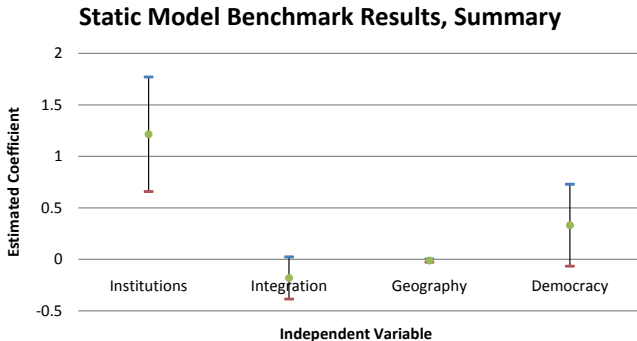
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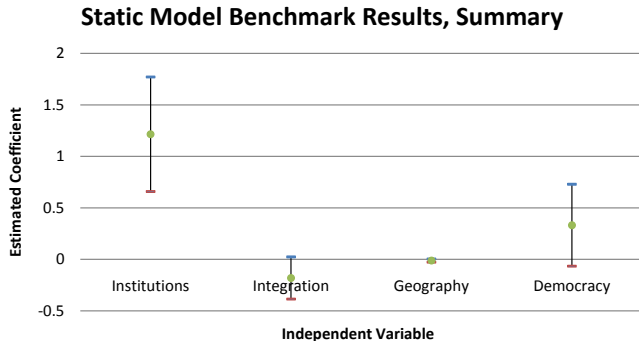
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Result

Geography and integration not always trumped by institutions, but signs sometimes inconsistent with *a priori* expectations

Static Model Findings

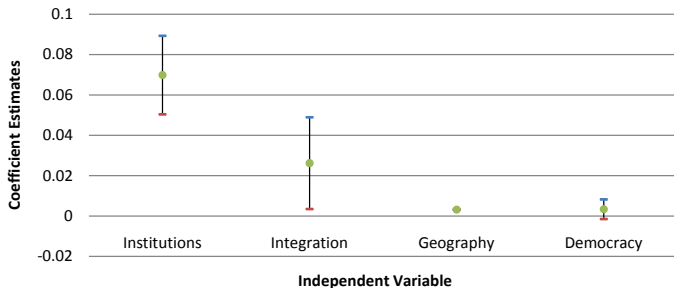


Result

Results are robust to other deep determinants of growth and alternative measures of the key deep determinants

Dynamic Model Findings

Dynamic Model Benchmark Results, Summary

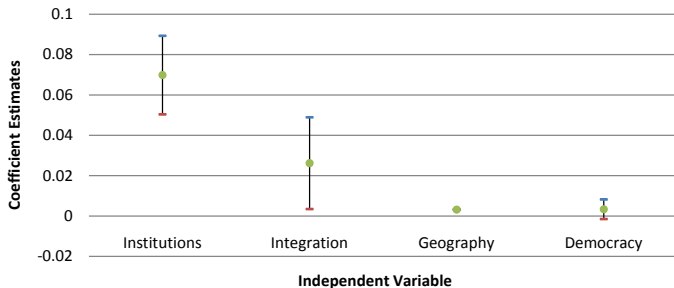


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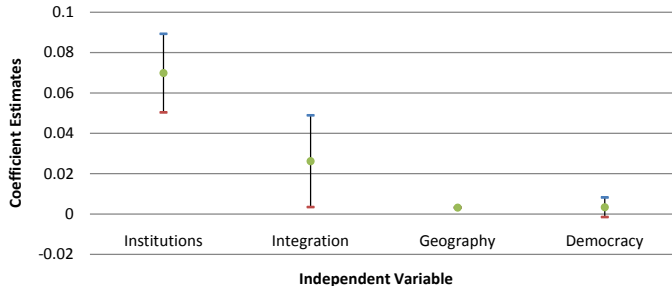


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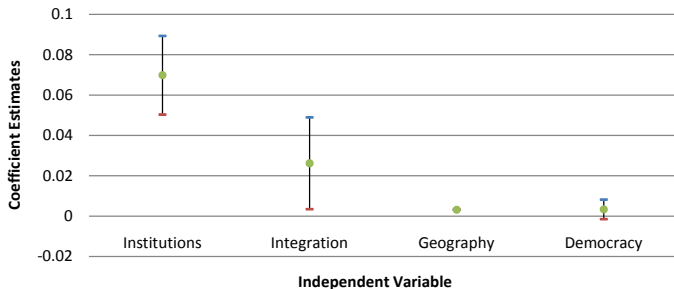


Result

Geography and integration consistent with theoretical expectations, but not always significant

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Recap of Main Findings

- Unpack the definition of “institutions” into political-economic and political
- Institutions matter, democracy less so
- Other fundamental determinants may matter too

“Democracy is not necessarily better for development. Only when combined with markets and openness does democracy offer the best prospect of achieving the efficient, dynamic society that allows development to thrive.”

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Why Unpack Institutions?

- Mechanisms driving democratic processes and institutional governance can be distinctly different
 - Legislative bargaining and electoral competition affect voice
 - Special interest lobbying, cultural norms, and colonial history affect governance
- Conflating political regimes with governance can undermine work in developing countries
 - Interference in political affairs of countries often regarded with more hostility
 - May win over “governance-skeptics” that feel that democracy exerts second-order effect on growth

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Selected References I

-  Diamond, Jared (1997), *Guns, Germs and Steel: The Fates of Human Societies*. New York, NY: W.W. Norton
-  Frankel, Jeffrey A. & David Romer (1999), “Does Trade Cause Growth?”, *American Economic Review* 89(3) (June): 379–399
-  Rodrik, Dani, Arvind Subramanian & Francesco Trebbi (2004), “Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development”, *Journal of Economic Growth* 9(2) (June): 131–165
-  Butkiewicz, James L. & Halit Yanikkaya (2006), “Institutional Quality and Economic Growth: Maintenance of the Rule of Law or Democratic Institutions, or Both?”, *Economic Modelling* 23(4) (July): 648–661
-  Barro, Robert J. (1999), “Determinants of Democracy”, *Journal of Political Economy* 107(6/2 Supplement) (December): S158–S183
-  Arellano, Manuel & Olympia Bover (1995), “Another Look at the Instrumental Variable Estimation of Error-Components Models”, *Journal of Econometrics* 68(1) (July): 29–51

Details of econometric models

- Identification of static model

$$\begin{aligned}INS_i &= \phi_0 + \phi_1 SM_i + \phi_2 CONST_i + \phi_3 DEMDEV_i + \phi_4 GEO_i + v_i, \\INT_i &= \theta_0 + \theta_1 CONST_i + \theta_2 SM_i + \theta_3 DEMDEV_i + \theta_4 GEO_i + \nu_i, \\DEM_i &= \lambda_0 + \lambda_1 DEMDEV_i + \lambda_2 SM_i + \lambda_3 CONST_i + \lambda_4 GEO_i + \zeta_i\end{aligned}$$

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[Return](#)

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