

THE EFFECTS OF POLITICAL INSTITUTION ON SOURCES OF ECONOMIC GROWTH: CASE OF DEVELOPING COUNTRIES

PENGARUH INSTITUSI POLITIK TERHADAP SUMBER-SUMBER PERTUMBUHAN EKONOMI: KASUS NEGARA-NEGARA BERKEMBANG

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ABSTRAK

Penelitian ini berupaya untuk mengukur apakah institusi politik memiliki pengaruh signifikan terhadap sumber-sumber pertumbuhan ekonomi di negara-negara berkembang. Riset ini menggunakan data panel dari 65 negara berkembang dengan mengikuti metodologi Pinto dan Timmons. Hasil penelitian ini menunjukkan bahwa rezim yang lebih demokratis menurunkan tingkat investasi dan meningkatkan rasio penanaman modal asing (PMA) terhadap PDB. Namun, institusi politik di negara berkembang tidak membawa pengaruh yang signifikan terhadap tingkat "enrollment" sekunder, suplai tenaga kerja, dan rasio perdagangan terhadap PDB. Penelitian ini memperkaya temuan-temuan empiris dalam interaksi antara institusi politik dan kinerja ekonomi, khususnya untuk kasus negara berkembang.

Kata Kunci: ekonomi politik, pertumbuhan ekonomi

ABSTRACT

This research attempts to determine if political institutions has significant influences on sources of economic growth in developing countries. The research employs panel data of 65 developing countries by following the methodology of Pinto and Timmons. The results show that more democratic regime decreases investment rates; and increases foreign direct investment to GDP ratio. However, political institutions in developing countries bring insignificant effects to secondary enrollment rate, labor supply and trade to GDP ratio. This research enriches the empirical findings on interaction between political institutions and economic performance especially for the case of developing countries.

Keywords: political economy, economic growth

INTRODUCTION

1. Background

Democracy is a widespread recognized universal value as it is clearly expressed in the Universal Declaration of Human Rights.¹ Its worldwide campaign goes beyond its effects on economic prosperity. Hence, if democracy is a goal in itself, a clear understanding of democratization effect on economic performance becomes indispensable especially for developing countries.

Nowadays, we become witnesses for remarkable economic achievements of some developing

countries despite the political regime differences e.g. India that represents democratic countries and China that represents autocratic countries. On the other hand, there are some countries which have experienced persistent economic deterioration regardless the political regimes e.g. the least developed countries. Furthermore, some countries face still facing economic difficulties although they have transformed political regimes from autocratic to democratic, vice versa, e.g. Congo. This phenomenon needs better understanding on relationships and interaction between political institutions and economic performance.

2. Problem Statements

Despite the growing interests on empirical analyses to examine relationships between political institutions and economic performance in developing countries, the dedicated research are insufficient. The approach of this research to focus only on developing countries is motivated by the rare political economy studies and a suggestion by Durlauf, Kourtellos, and Tan.² They pointed out that despite the growing number of theories and research in growth theory, the aggregate regression is unable to uncover strong evidence of growth determinants. Therefore, Durlauf et al suggested researchers pay more attention to countries' details.

3. Research Objectives

This study attempts to determine:

1. Whether or not political institutions, in both democratic and autocratic regimes in developing countries, influence the sources of economic growth.
2. Patterns of relationships between political institutions and sources of economic growth in developing countries.

4. Literature Review

a. The Effects of Special Interest Groups on Economic Growth

Helpman³ argued that the very seminal work on the effects of political institutions on economic growth was that by Olson.⁴ By employing the theory of groups and organization, Olson argued that interest groups act solely to benefit the members of the groups and hence create barriers, in the form of introducing complex legal procedures, complicated government bureaucracy and other obstacles, that are likely to obstruct the implementation of new technology. Furthermore, Olson⁵ offered a supposition that "countries that have had democratic freedom of organization without upheaval or invasion will suffer the most from growth-repressing organizations".

However, Olson's view has been challenged by Przeworski, Alvarez, Cheibub, and Limongi⁶ who claimed that declining trend of growth has no relationship with age of a regime, either democratic or autocratic, Perrson and Tabellini⁷

who discovered that more favorable policies in pursuit of higher growth were conducted by the older democratic countries. Therefore, Helpman argued that we still do not have a good theory and empirical analysis to explain the link between political institutions and economic growth.

The Effects of Political Regime Differences on Economic Growth

Olson's works attracted many economists to undertake research as Przeworski and Limongi⁸ counted 18 studies between 1966 and 1992 that tested the effects of regime differences (autocracy and democracy) on economic growth. Some findings favor democracy, some findings favor autocracy, while the remainder show indifference between political regimes. Therefore, Przeworski and Limongi claimed that the evidence is statistically inconclusive.

The Effects of Democracy on Some Components of Economic Growth

Tavares and Wacziarg⁹ offered a new methodology by decomposing components of economic growth, instead of projecting economic growth directly onto types of political regimes. They found that democracy promotes economic growth by increasing the level of human capital accumulation reducing income equality; democracy hampers economic growth by decreasing physical capital accumulation and increasing the government expenditure to gross domestic product (GDP) ratio. Thus, Tavares and Wacziarg claimed that democracy brings a moderate negative effect to economic growth.

The Political Determinants of Economic Performance

Later, Pinto and Timmons¹⁰ suggested that effects of political institutions on sources of economic growth could be explained by employing augmented neoclassical growth theory and the median voter theorem. From the augmented neoclassical growth theory, they pointed out that the sources of economic growth could be decomposed into three components, namely accumulation of physical capital, accumulation of human capital, and total factor productivity.

Under the median voter theorem mechanism which suggests that voters can utilize their voting power to establish income redistribution policies, Pinto and Timmons claimed the effects of political competition on components of economic performance, as shown in Figure 1. Their conclusion is that political competition brings negative effects to physical capital accumulation, positive effects to both human capital accumulation and total factor productivity.

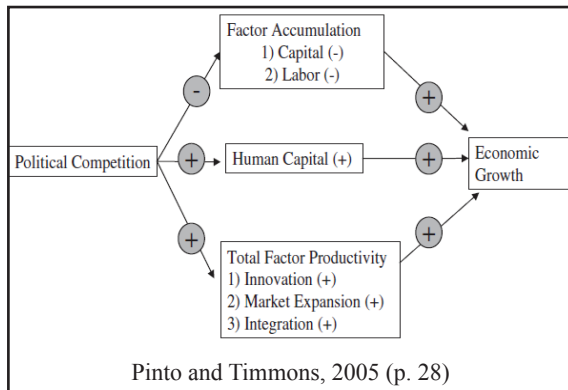


Figure 1. Pinto and Timmons' political competition and sources of growth

5. Research Hypotheses

This research poses three hypotheses that political institutions influence the sources of economic growth in developing countries in various ways as the following.

1. More democratic regime increases (decreases) physical capital accumulation.
2. More democratic regime increases (decreases) human capital accumulation.
3. More democratic regime increases (decreases) total factor productivity.

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RESEARCH METHODOLOGY

The research methods and techniques are mainly inspired by and follow the methodology of Pinto and Timmons. The methodology is to employ a time-series cross-sectional (TSCS) panel and the three-stage least squares (3 SLS) estimation method by using secondary data from respected sources.

1. Model Specification

In general, the econometric formulation is the following:

$$y_{i,t} = \alpha + \beta_1 \sum \text{CONT}_{i,t} + \beta_2 \text{EXP}_{i,t} + \beta_3 \sum \text{DUM}_{i,t} + \gamma_1 y_{i,t-1} + \varepsilon_{i,t}$$

where y is a specific dependent variable, CONT are control variables, EXP is the explanatory variable, DUM are dummy variables, is the lagged dependent variable (LDV), and is the residual.

As an illustration, the model is graphed as shown in Figure 2 followed by detail descriptions.

Competitiveness of Political Participation (PARCOMP) is the explanatory variable represents political institutions measurement produced by POLITY IV. It adduces citizens' ability to pursue policy and leadership in politics with five scores from 1 to 5, i.e. *repressed*, *suppressed*, *factional*, *transitional*, and *competitive* respectively. The

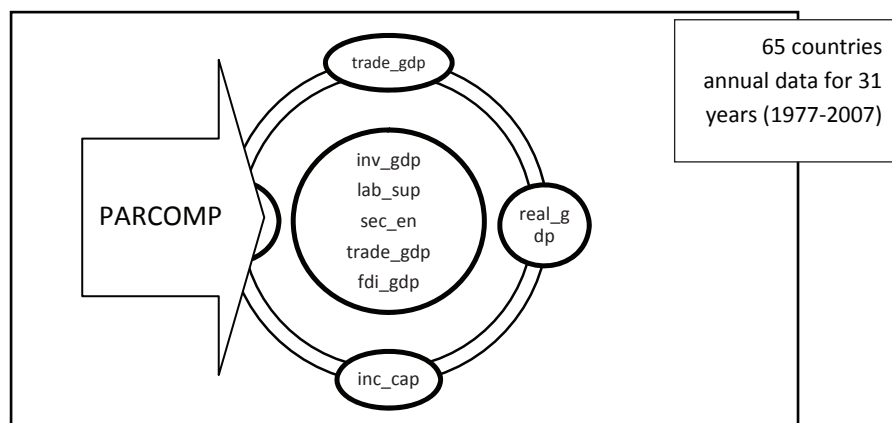


Figure 2. Model Illustration

higher the score, the more competitive, and the more democratic a country is.

Four control variables (*trade_gdp*: trade to GDP ratio, *real_gdp*: real GDP, *inc_cap*: income per capita, and *pop/pop_gr*: population/population growth rate) capture the openness of market, the size of market, the country wealth, the country size, respectively. This research also employs natural logarithm of control variables.

Five dependent variables represent sources of economic growth (*inv_gdp*: investment to GDP ratio, *lab_sup*: labor supply relative to population, *sec_en*: secondary enrollment rate, *trade_gdp*: trade to GDP ratio, and *fdi_gdp*: foreign direct investment to GDP ratio).

2. Unit Analysis and Other Explanations

Dataset are chosen from 65 countries for 31 years (1977–2007) selected by criterions: (i) classified by the World Bank as developing countries in 2008, (ii) population exceeding 1 million people, (iii) no problems of fragmentation or unification.

Beside the annual country data, 5-year average data is employed to reduce possibility of business cycle during several years in a particular country. Furthermore, this research employs two dummy variables, namely, country dummies to control level differences across countries; and year dummies to control year-specific shocks common to all countries.

Three-stage least square (3SLS) estimation method is operated to deal with problems of endogeneity and simultaneity. Instrumental variables used are lags of political indices. Moreover, the lagged dependent variable (LDV) model has been employed as recommended by Beck and Katz¹¹ for dynamic specification in time-series cross section (TSCS).

RESULTS AND DISCUSSIONS

This research presents regression results of annual data as shown in Table 1. The econometric estimation for the 5-year average data sample has been undertaken, however, the results are not reported because the findings are broadly consistent with the annual data regression results. The odd columns exhibit regression results for

country dummies, meanwhile the even columns for year dummies.

1. Investment to GDP Ratio

PARCOMP index has significant and negative relationships with the investment to GDP ratio (significant at 5%). As column 1 of Table 1 exhibits, a positive 1-point change in the PARCOMP index reduces the investment to GDP ratio by 0.25%. Thus, the maximum reduction in the investment level for the 5-point PARCOMP is 1.3%.

The evidence shows that *more competitive regimes will have lower levels of capital formation (investment) relative to the gross domestic product ratio*. In other words, the relationship between investment level and political competition is *negative*.

Indeed, Pinto and Timmons found a robust negative relationship between PARCOMP and investment levels. Similarly, Tavares and Wacziarg claimed that democracy decreases investment rates due to the reason that the government under more competitive regimes put a greater value on people (who has voting power) than the capital. However, both of the previous research utilized OECD countries which have more data and might drive the results to reflect the situation of developed countries more than of developing countries.

2. Secondary Enrollment Rate

PARCOMP index has *insignificant and negative relationships* with secondary enrollment as shown in column 3 and 4 of Table 1. The primary data evidence shows that *more competitive regimes will have lower levels of secondary enrollment* is very weak, thus, this research is unable to conclude the relationship between secondary enrollment and political competition.

This conclusion is contrary to Pinto and Timmons' finding of a robust positive relationship between political democratization and secondary enrollment and to Tavares and Wacziarg's claim that "higher level of democracy leads to higher educational attainment".

However, Baum and Lake¹² found that there is a positive and significant relationship between

Table 1. Regression Results of the Effects of Political Institutions on Sources of Economic Growth (3 SLS)

Dependent Variables	1	2	3	4	5	6	7	8	9	10
	Investment to GDP (%)		Labor Supply		Secondary Enrollment (%)		Trade/GDP		FDI/GDP (%)	
Dependent Variables t-1	0.7065*** (0.0201)	0.6826*** (0.0212)	0.9125*** (0.0310)	0.9121*** (0.0312)	0.8367*** (0.0343)	0.6936*** (0.0594)	0.8378*** (0.0164)	0.8403*** (0.0163)	0.8041*** (0.0414)	0.7285*** (0.0474)
Trade/GDP (%)	0.0053 (0.0053)	0.0069 (0.0053)	-0.0011 (0.0063)	-0.0015 (0.0064)	-0.0015 (0.0204)	0.0037 (0.0208)			-0.0129*** (0.0041)	-0.0163*** (0.0042)
Real GDP/Ln Real GDP	1.4715*** (0.4022)	2.6589*** (0.5547)	-0.5222 (0.5318)	-0.4822 (0.6757)	0.0010 (0.0028)	0.0021 (0.0028)	-0.0009 (0.0009)	-0.0007 (0.0008)	-0.0002 (0.0002)	-0.0001 (0.0002)
Real GDP per Capita (US\$)	0.0002 (0.0001)	-0.0000 (0.0001)	0.0002 (0.0001)	0.0002 (0.0001)	0.1113 (0.2349)	-0.4746 (0.2895)	0.0004** (0.0002)	0.0004** (0.0002)	0.0002*** (0.0001)	0.0000 (0.0001)
Population (Millions)	-0.0035 (0.0036)	-0.0032 (0.0035)	-0.0032 (0.0046)	-0.0034 (0.0045)	0.0186 (0.0489)	-0.0152 (0.0498)	0.0146 (0.0129)	0.0084 (0.0131)	0.0041 (0.0037)	-0.0013 (0.0037)
Political Competition t-1	-0.2573** (0.1104)	-0.1465 (0.1168)	-0.1162 (0.1391)	-0.1297 (0.1487)	-0.1438 (1.0114)	-0.8461 (1.0622)	0.3657 (0.2489)	0.1079 (0.2925)	0.2739*** (0.0813)	0.0620 (0.0906)
Constant	-2.8227* (1.4820)	5.8541*** (1.2655)	14.8662** (6.3962)	14.4829** (7.0321)	3.5583 (3.8069)	30.5982 (49.2333)	21.2204*** (3.5520)	18.6839*** (4.0186)	-3.6536 (3.6700)	2.7992 (2.3639)
Observation	1857	1857	1664	1664	347	347	1857	1857	1711	1711
R-square	0.8988	0.8988	0.8912	0.8912	0.9489	0.9489	0.9235	0.9235	0.8924	0.8924
Dummies	Country	Year	Country	Year	Country	Year	Country	Year	Country	Year

Notes: Standard errors in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%.

democracy and secondary enrollment in non-poor countries (per capita income more than 2,500 USD), whereas the relationships is insignificant for poor countries. If we consider that all of the developing countries could be classified as poor countries, the evidence of this research is similar to that of Baum and Lake in terms of lack of significant connector.

This research is unable to discover a significant pattern between political competition and secondary enrollment. One possible explanation for this inability is perhaps due to data insufficiency, as one third of the subsample data are not being included. Another explanation could be the confirmation of the finding by Baum and Lake. Therefore, our tentative conclusion is that political competition in developing countries has no significant relationship with the secondary enrollment rate.

3. Labor Supply

PARCOMP index has *insignificant and negative relationships* with labor supply as shown in column 5 and 6 of Table 1. The data shows weak evidence that *more competitive regimes will have lower levels of labor supply relative to population*. In other words, this research is unable to conclude

the relationship between labor supply and political competition.

This finding is contrary to Pinto and Timmons' finding of a robust negative relationship between political democratization and labor supply. Unfortunately, we are unable to find the reason behind this finding because there is not much research that has been done in testing how democracy or political competition affects labor supply which could be compared to evidence in this research.

4. Trade to GDP Ratio

PARCOMP index has *insignificant and positive relationships* with the trade to GDP ratio as shown in column 7 and 8 of Table 1. The data shows weak evidence that the *more competitive regimes will have higher levels of trade to gross domestic product ratio*. In other words, we cannot conclude that relationship generally exist between trade and political competition.

Indeed, Pinto and Timmons also found similar evidence to this research which shows unclear support to the hypothesis. Meanwhile, Tavares and Wacziarg discovered that democracy tends to lower the trade openness.

5. FDI to GDP Ratio

PARCOMP index has significant and positive relationships with FDI to GDP ratio in the data (significant at 1%) as shown in column 9 of Table 1. As Columns 9 exhibits, a positive 1-point change in the PARCOMP index increases the FDI to GDP ratio by 0.27%. Thus, the maximum improvement in the FDI level for the 5-point PARCOMP is 1.35%.

The evidence shows that *more competitive regimes will have higher levels of foreign direct investment relative to gross domestic product*. In other words, the relationship between the foreign direct investment and political competition is *positive*. This finding is similar to Pinto and Timmons' evidence. If this is true, we may infer that political competition has a positive and significant association to the FDI to GDP ratio in developing countries.

CONCLUSIONS

This research conducted an empirical analysis approach for investigating the effects of political competition on economic performance with focusing only to a sample of countries that is chosen from the same stage of development i.e. developing stage. Thus, we are able to examine the sources of economic growth by decomposing the sources of economic growth in developing countries.

1. Significant Findings

Significant findings from this research as follows:

- 1) More democratic regime in developing countries decreases physical capital accumulation by reducing investment rates.
- 2) More democratic regime in developing countries increases total factor productivity by attracting foreign direct investment.
- 3) Political institutions in developing countries do not matter to labor supply (physical capital accumulation); secondary enrollment rate (human capital accumulation); and trade to GDP ratio (total factor productivity).

2. Research Contributions

If those findings are true, we may conclude specific pattern of relationships between political institutions and sources of economic growth in developing countries as follows:

- 1) The findings that more democratic regime reduces the rate of investment, and promotes FDI at the same time shows off-setting (cross-cutting) effect of political institutions on sources of economic growth. The findings confirm Pinto and Timmons' empirical result.
- 2) Political institutions do not matter to secondary enrollment rate which is contrary to major research including Pinto and Timmons' finding that claimed democratic regimes increases human capital accumulation.
- 3) Political institutions do not matter to labor supply which is contrary to what Pinto and Timmons' finding that more democratic regime decreases labor supply.

Hence, this research has enriched existing understanding on pattern of relationships between political institutions and economic performance in developing countries.

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