

THE ECONOMIC EFFECT OF DEMOCRATIC SECURITY POLICY AGAINST INEQUITY: EMPIRICAL CASE FROM COLOMBIA, 2000- 2006

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Abstract

Colombia was the 5th largest economic power in South America and 31st in the world in 1990, with petroleum commodity making up almost half of the entire income. Despite the records and resources, the distribution was centralized in major metropolitan areas such as Bogota, Medellin and Cali. At its worst, during 2000-2006, Colombia experienced an increasing in GDP per Capita followed by an often fluctuate Gini Ratio higher than 0,5 which may fall into the category of high inequity. As part of President Alvaro Uribe's democratic security policy, war against terrorism and illegal drug trading was implied by showing domination of the military between 2000-2004. Several operations and sieges were carried out all over the country to seize the objectives. Throughout the operation, the civil society was on the verge of political and social turmoil. Using a high quality dataset of wealth indicators over the period 2000-2006, this paper develops a correlation of the economic performance and socio-political condition. This model is parameterized by a dataset of graphs which describes the condition of wealth in Colombia. Having similarities in political and economical situation, the experience of Colombia could be a lesson, review or benchmark for the development progress of Indonesia.

Keywords: Inequity, Income Inequality, Gini Ratio, GDP Per Capita, Democratic Security Policy

INTRODUCTION

The sustainability of the economy of a country is certainly influenced by its own political circumstances. The composition of the government will definitely determine the economic regulations and policies. Then problem will arise when the centre-role is hampered from internal and external factors. Political instability is one of the conditions that are a mixture of both factors that can cause a crisis in all aspects of the state. Many researchers, professors and independent institutions have found a positive correlation between political instability and general economic growth. The most widely taken conclusion is the first one reduces the latter.

As a developing country, Colombia's economy strength is greatly encroached by a series of battles and operations famously known as Colombian Conflict. It almost taken the entire future of the country's economic growth since the 1965. The conflict has took many of Colombia budgets, resources and chances for more than five decades. More than 200.000 people have died from the conflict that the social-revolutionary terrorist, Fuerzas Armadas Revolucionarias de Colombia (FARC) started. Most of them are civilians who were trapped in the battles. At the peak of the conflict, the Gini index of Colombia reached its highest

coefficient, exceeding the medium level. This period was known as one of the worst times for Colombia that have experienced many conflicts. By exposing this case, this paper will try to examine the concrete evidences of the relationship between political instability and inequity distribution of wealth.

LITERATURE REVIEW

Political Instability

Generally, political instability can be described as a collection of events that struck a country in a certain matter of condition. As there is no central definition of political instability, many works have tried to measure it using various variables and indicators. Barro (1991) tried to measure the concept by showing dataset of revolutions, coups and political assassinations on more than 70 countries. However this example have only defined political instability in just outer core since the concept also needs to include more other notable events such as demonstration, cabinet reshuffle or terrorist insurgency. The more extensive variables by Alesina et al. (1996) includes three broad classes: 1) political unrest such as cabinet adjustments; 2) “structural” institutional variables such as the GDP per capita and being a democracy or not; 3) economic performance in particular growth level. In contrary, Jong-A-Pin (2008) presented more complete political variables than Barro (1991) while neglecting institutional and economic variables by Alesina et al. (1996).

The earlier works have mixed results in finding a clear relation between political instability and economic development. Barro (1991) concluded that even though the simple correlation between per capita growth and the level of per capita GDP is close to zero, the correlation becomes substantially negative if measures of initial human capital are held constantly. In opposite, Jong-A-Pin (2008) found positive relation with exception in some different cases that show the instability as boost for the reigning government. More recent, Ari Aisen et al. (2011) found similar result, stating that political instability significantly reduces economic growth, both statistically and economically. Presumably, the cause of the mixed results is the used of different variables and indicators in defining political instability.

The types of political instability can be different from one country to another as a result of different social, political and economic background. Jong-A-Pin (2008) classified two different types by the main cause of the instability, ethnic violence and terrorism. The presence of ethnic minority that dominates economically the poor indigenous majority, democratization and globalization cause ethnic violence. Actions, incidents and sabotages claimed by terrorist group can affect public opinion thus shaping the popularity of government. Moreover, the respond taken may decrease or increase the popularity as it will show the government’s accountability. These two types are the most general causes in all over the world which do not rule out the possibility of different major factor in particular country.

Inequality and Society Economic Welfare

Gini Ratio and Inequality

There are two sizes are generally used to analyze the income distribution (Todaro and Smith, 2006) are the size distribution of income and functional or factor share distribution of income, and the functional or factor share of income distribution focuses on a part of the total national income received by each of the factors of production (land, labor, and capital). One of the measurements which reflect the inequality of income distribution is the Gini coefficient (Gini Ratio). The Gini Ratio is mostly used to measure the overall level of income inequality, with a broad measurement of a curve that describes the distribution of income for all of income groups. The curve is called the Lorenz curve, which is a curve that compares the cumulative expenditure distribution of a particular variable with uniform distribution which represents the cumulative percentage of the population. If revenues are distributed perfectly, all the points will be located on a diagonal line. The shaded areas will be zero because the area is equal to the diagonal line, and thus the coefficient number equal to zero. Conversely, when only one party who receives all income, the area shaded areas will be equal to the area of the triangle, so that the Gini coefficient worth one. Therefore, it could be concluded that a more equitable distribution of income is said when the value of the Gini coefficient close to zero (0), while an increasingly unequal distribution of income, the Gini coefficient value of its increasingly close to one. Criteria based on the Gini coefficient of income inequality (Susanti, 2007) are as follows:

- Less than 0.4 : Low degree of inequality
- Between 0.4-0.5 : Moderate inequality
- Higher than 0.5 : High degree of inequality

The Gini coefficient is a measure of income inequality that meet four criteria (Todaro and Smith, 2006). First, the principle of anonymity, the size of the imbalances should not depend on who earn higher incomes. The measure does not depend on what we believe to be a better human being, whether it be the rich or the poor. Secondly, the principle of independence of the scale, the size of inequality does not depend on whether we measure revenues in dollars or in cents, or whether the country's economy on average, rich or poor. Thirdly, The principle of independence of the population, this principle states that the measurement of inequality should not be based on the number of recipients of income (total population). For example, China's economy should not be said to be more equitable or more unequal than Singaporean economy only because the China has more population. Fourthly, the principle of transfer, this principle is also often referred to as the Pigou-Dalton principle.

GDP Per Capita and Kuznets's Hypothesis

GDP per capita is a measure of a country's economic output per person. It divides the country's Gross Domestic Product by its total population. That makes it the best measurement of a country's standard of living. It shows how prosperous a country feels to each of its citizens. The formula is GDP of a country divided by population of the country at certain time. Relationship between economic growth and income inequality could be

explained by using Kuznet's hypothesis. The Kuznet's hypothesis explains relationship between the economic growth of a country with inequality distribution of income among the population. Using data from country to country (cross section) and data from a number of surveys or observation in any country with time series data, Kuznets find the relation between income inequality and income per capita represent inverted U-shaped. This U-shaped indicates that in the early stages of economic growth, income distribution tends to worsen (inequality rises), but on the next stage will improve income distribution (inequality decline). Inverted U hypothesis put forward Kuznets argument is based on the theory of Lewis regarding the movement of people from rural areas (agriculture) to urban (industrial sector). Rural areas are very densely populated, resulting in the level of wages in the agricultural sector is very low, while in urban areas the wage level is relatively high because the population or work force is relatively small, and makes the supply of labor from the sector to the industrial sector is not limited. Several empirical studies conducted to test the hypothesis Kuznets using macro data from a number of countries, associated with the relationship between economic growth and income inequality. The empirical studies carried out three important notes (Tambunan, 2001). First, several studies conducted reject the hypothesis Kuznets. Empirical studies conducted Ravallion and Datt (1996) of India shows that during the period of the 1950s to the 1990s the average income per capita increases and the development trend of economic inequality showed a negative angle (downhill). Analysis of the 60 developing countries conducted by Adams (2004) also showed that GDP per capita has no effect on income inequality.

Second, although in general this hypothesis is accepted, but most of these studies show that the positive relationship between economic growth and equity on a long-term period only evident for a group of industrialized and developed countries (the group of countries with high levels of income). Third, the gap portion of the Kuznets curve (left) tends to be more volatile than the portion of the gap decreases from the curve (top right). The gap tends to decrease for countries in the medium and high income levels. Thus, since the gap portion of the curve is composed of low-income countries, the relationship is more unstable for these countries. Recent developments of studies on economic development, no longer focused on whether or not the hypothesis Kuznets effect, but rather the positive impact of economic growth on poverty reduction with the possibility of an increase in income inequality (Wodon, 1999).

It was found that the income inequality is strongly influenced by the amount of social contributions which makes the panel data for various countries biased. The inverted U-curve was found in the countries with low amount of social contributions. With increasing amount of social contribution the inverted U-curve flattens, its maximum decreases and position of the turning point is shifted to higher GDP per capita.

Empirical research on the validity of Kuznets hypothesis was performed by many authors during last 30 years, but obtained results are controversial and not conclusive. Ahluwalia (1976) in his early work found support for the Kuznets hypothesis. However, Deininger and Squire (1998) performed both cross-country analysis and examination of

country specific time series. They did not find any support for the Kuznets inverted U-curve neither in the cross-country analysis nor in the country specific inter-temporal data. On the other hand, Jha (1996) analyzed observations for 76 countries for the period 1960-92 and found that Kuznets hypothesis holds. Similarly Milanovic (2000) reported that Kuznets hypothesis was supported by data for 80 countries during the 1980s.

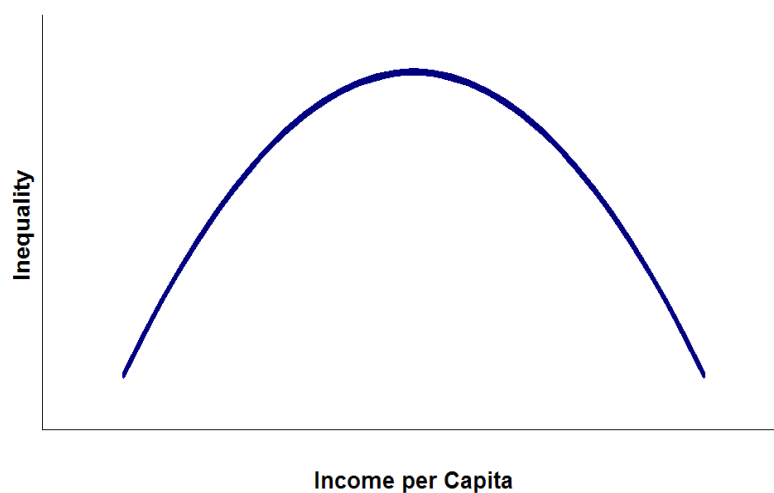


Figure 1. Kuznet Curve

METHODOLOGY

Data used for analyze political stability is from the Politically Motivated Violence Ranking by Jong-A-Pin (2008). This ranking indicates political stability in a country. Low ranking refers to a stable country and a high ranking refers to an unstable country. Most of paper utilize data of Gini ratio and GDP per Capita of Colombia during 2000-2006 for economic analysis. In this paper, the effect of democratic policy on inequity will be explained by the alteration of Gini ratio and GDP per Capita compared and contrasted for the same time period. The Gini ratio could represent income distribution and income inequality, while GDP per Capita could represent standard of living of Colombia people. The Gini ratio and percentage changes were obtained from Ieconomics. The macroeconomic and socioeconomic variables are from the World Bank World Development Indicators Database (WDID), and Ieconomics.

The Gini ratio and GDP per Capita data are gathered for seven year periods. The Gini ratio and GDP per Capita of Colombia data consist of observations covering 2000-2006. Table 1 presents the statistics on the variable of Gini ratio for period 2000-2006. The Gini ratio is fluctuate over the period in range of 0.5-0.6, for example the Gini ratio value 0.587 on first period, compared to 0.600 on later period. This income inequality measure tend to increase and indicates a worsen income distribution for the later data. The percentage change of Gini ratio is also fluctuate, with rise and fall alternately every year. Table 2 presents the statistics on variable of GDP per Capita for period 2000-2006. The value of

GDP per Capita is increasing over the period, followed by increasing percentage of change. This indicates a better standard of living of Colombia people.

Table 1. Colombia Gini Ratio, 2000-2006. Source: Ieconomics

Year	Gini Ratio	Change (%)
2000	0.587	
2001	0.577	-1.57%
2002	0.583	0.87%
2003	0.544	-6.61%
2004	0.561	3.12%
2005	0.550	-1.91%
2006	0.600	9.16%

Table 2. Colombia GDP Per Capita, 2000-2006. Source: Ieconomics

Year	GDP Per Capita (US Dollar)	Change (%)
2000	4764.16	
2001	4774.98	0.23%
2002	4825.83	1.06%
2003	4945.96	2.49%
2004	5139.98	3.92%
2005	5312.08	3.35%
2006	5596.73	5.35%

Another methodology used for the analysis is social contribution of Colombia during the period. Social contribution of country with extremely high amount of social contributions where all income is equally distributed among all citizens the Kuznets curve cannot exist because the Gini index must be always zero independently on the level of economic development (Čížek and Melikhova, 2014), vice versa. The category of amount of social contributions is expressed in % of GDP: low amount (< 5 %), intermediate amount, (5-10 %), high amount (10-15 %), very high amount (> 15 %).

The data of Colombia Gini ratio and GDP per Capita over period 2000-2006 are presented graphically for the result analysis. This graphic are used to analyze the effect of the political policy to economic condition, mainly for inequity in Colombia. The graphic is combined with scatter plot resulting from analysis sample consists of data available in the online World Bank database World Development Indicators (2011) for 145 countries for which Gini index was measured at least once in the period 1979-2009 by Čížek and Melikhova (2014).

RESULT ANALYSIS

According to the works of Jong-A-Pin (2008), Colombia is an unstable country based on the amount of politically motivated violence with a low ranking refers to a stable country and a high ranking refers to an unstable country. Table 3 shows that Colombia is ranked 116 out of 119 countries observed, which could be categorized as high rank, and thus Colombia refers to an unstable country.

Table 3. Politically Motivated Violence Ranking. Source: Jong-A-Pin (2008)

Ranking	country	obs	median	minimum	r min	maximum	r max
1	Mongolia	5	-0.60	-0.64	2	-0.48	11
2	Russia	3	-0.59	-0.63	3	-0.29	55
3	Korea, Dem. Rep.	6	-0.59	-0.60	7	-0.55	1
4	Vietnam	6	-0.57	-0.61	5	1.44	95
5	Albania	6	-0.56	-0.60	9	-0.26	57
6	Bulgaria	5	-0.56	-0.60	8	-0.36	46
7	Singapore	6	-0.55	-0.57	16	-0.51	5
8	Japan	5	-0.55	-0.59	12	-0.50	7
9	Taiwan	2	-0.55	-0.57	18	-0.52	3
10	Ivory Coast	6	-0.54	-0.56	21	0.09	77
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110	Angola	5	1.51	0.92	114	1.82	98
111	Guatemala	5	1.70	-0.45	87	3.44	114
112	Cambodia	3	1.87	1.52	117	1.96	100
113	Myanmar	3	1.94	0.54	113	2.38	106
114	Peru	5	2.03	1.09	115	3.16	112
115	Lebanon	3	2.09	1.75	118	2.49	108
116	Colombia	6	2.11	0.36	110	6.19	119
117	Sri Lanka	6	2.14	-0.08	104	2.63	109
118	Philippines	5	2.32	1.14	116	3.57	115
119	Afghanistan	4	2.41	1.78	119	3.13	111
Spearman rank correlation with median ranking:					0.83		0.79

Terrorism is the biggest contributor in political instability of Colombia. Peter Waldman in *The Anomic State: Law, Insecurity and Everyday Life in Latin America*, refers terrorism to the systematically planned, shocking acts of violence directed from underground against a political order. They are designed to produce a general sense of insecurity and fear, but also sympathy and support. The social-revolutionary terrorism is a product of political interaction between the ruling and the opposing sides in which the latter influenced by radicalization of attitudes and behaviour. In many democratic countries, leftist idea of revolution is considered as intolerable concept that wrack the democracy itself. Shunned and exiled, the leftist organizations established a new way using violence to seek the attention and sympathy. Both FARC and ELN (Ejército de Liberación Nacional) are considered as

pioneers of social-revolutionary terrorist who rejected the supremacy of the democratic government.

Political instability in Colombia is undeniable gives effect to its economic condition, mainly on inequity, reflects from its income inequality which is measured by Gini ratio. Based on data of Gini Ratio and GDP Per Capita of Colombia during period 2000-2006, Figure 2 shows graphically the alteration of the variables. During period 2000-2006, GDP per Capita of Colombia has constantly increased with different increase percentages. While GDP per Capita continues to rise, Colombia still experiencing fluctuate Gini index with value higher than 0,5 over the same period, which may fall into the category of high degree of inequality. This indicates Colombia people's standard of living are getting better, nevertheless there is no improvement on reducing income inequality. Moreover, this indicates economic growth of Colombia has been going well, yet society's welfare remain concern for the government, not all people relish the increasing GDP per Capita.



Figure 2 Gini Index and GDP Per Capita Colombia, Period 2000-2006. Source: Ieconomics

Political unstable of Colombia also give impact to its intermediate amount of social contribution. In a hypothetical country with extremely high amount of social contributions where all income is equally distributed among all citizens the Kuznets curve cannot exist because the Gini index must be always zero independently on the level of economic development (Čížek and Melikhova, 2014). Based on scatter plot regression, Figure 3 shows that in early increasing GDP per Capita, the Gini index also rise indicates a positive relationship, nevertheless GDP per Capita continues to increase, the Gini index start to decline and indicates negative relationship. This scatter plot shows the inverted U-curve dependence of Kuznet's hypothesis. Instability political in Colombia played role in the

intermediate amount of social contribution as many of Colombia budgets, resources and chances for more than five decades are taken by the conflict and battle against terrorism.

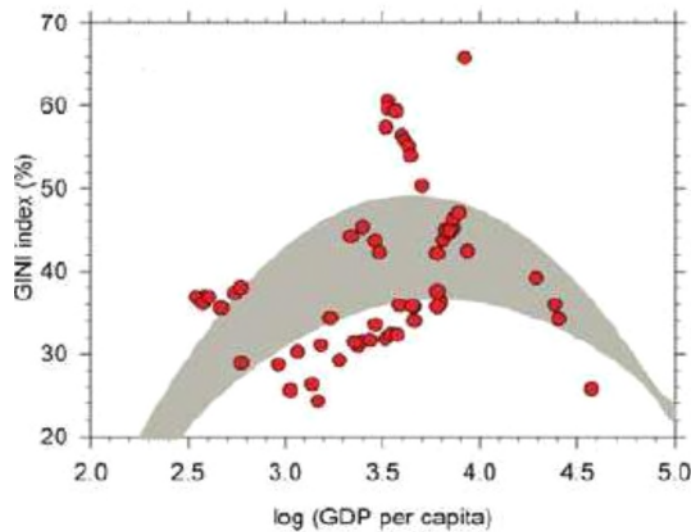


Figure 3. Scatter Plot Regression Gini Index versus log (GDP per Capita). Source: Čížek and Melikhova (2014)

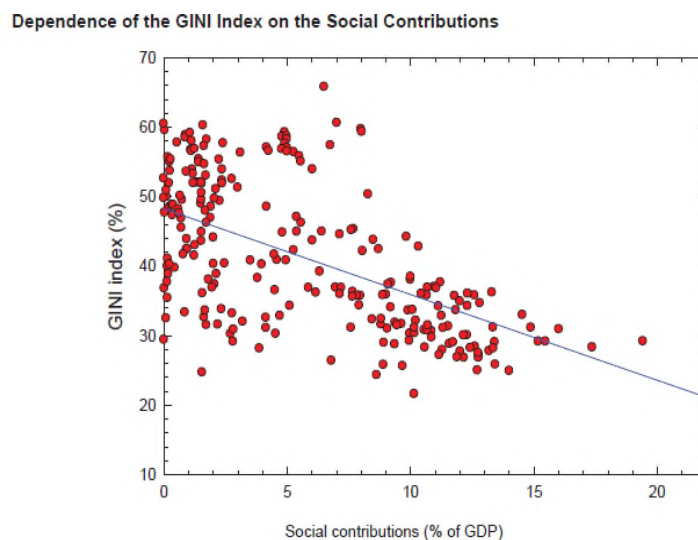


Figure 4. Scatter Plot Dependence of Gini Index on Social Contribution. Source: Čížek and Melikhova (2014)

Čížek and Melikhova (2014) did an empirical test of the Kuznets hypothesis was performed on data for 145 countries in the period 1979-2009. It was found that the income inequality is strongly influenced by the amount of social contributions. Figure 4 shows a scatter plot of the Gini index plotted against the social contributions (expressed in % of GDP). The relationship between the Gini index and the social contributions was examined using the Pearson and Spearman correlation coefficients. Results of this tests showed by scatter plot which has statistically highly significant (P-value < 0.001) (Čížek and Melikhova, 2014), thus it could be reliable and valid. These scatter plot and test shows that there the income inequality decreasing as social contributions increase. This indicates that

there is negative relationship between income inequality and social contribution, more social contribution lead to lower income inequality, vice versa. The inverted U-curve was found in the countries with low amount of social contributions. Colombia has 7.63% of revenue for social contribution in 2000, which could be categorized as intermediate amount of social contribution could be evidence of this research, as its income inequality is relatively high on those period.

By showing a positive correlation between political instability and distribution of wealth, many actions can be taken as a preventive way in the future to hold against the latter. Especially for the developing countries that have some similarities in background, including Indonesia. Third world countries share the common complication of unstable regime, radical opposition, and also separatist movement. This case showed the effect of dangerous obstacles above. Identifying and solving the root of the problem first is an option that worth a try. For this case, terrorism is the main act for the political instability, so unriddling the complicated world of it might be the best shot to shut the integral part of the problem. Furthermore, this brief explanation of the whole issue as once provides a new insight that might be turned into fullscale research. One important thing is that social contribution plays crucial role for country with increasing GDP per Capita to redistribute wealth of society, and thus could suppress value of Gini ratio and income inequality. Hence, the government of developing countries, including Indonesia need not to lose sight of the importance of social contribution.

CONCLUSION

Colombia is an unstable country based on the amount of politically motivated violence with a low ranking refers to a stable country and a high ranking refers to an unstable country, whereas terrorism is the biggest contributor in political instability of Colombia. Instability political in Colombia played role in the intermediate amount of social contribution as many of Colombia budgets, resources and chances for more than five decades are taken by the conflict and battle against terrorism, which could be one reason to a high fluctuate value of Gini ratio during period 2000-2006. Although Colombia people's standard of living are getting better, nevertheless there is no improvement on reducing income inequality. Thus, government of developing countries need to consider social contribution as a means to solve the problem of inequity.

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