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POVERTY RATE DURING THE 1998 AND 2008 CRISIS PERIOD IN 5 ASEAN COUNTRIES

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ABSTRACT

This study aims to examine and analyze the effect of GDP per capita, Inequal distribution of income, unemployment, population growth and government spending on education on poverty in five ASEAN countries. This study uses panel data regression equation using the Fixed Effect Model (FEM). The results showed that the effect of GDP per capita, Inequal distribution of income, unemployment, population growth and government spending on education affects simultaneously on poverty. While partially each independent variable have different effect on poverty in five ASEAN countries.

***Keywords**: Poverty, Inequality Income Distribution, GDP Per Capita, Unemployment, Population Growth, Goverentment Spending, Fixed Effect Model.*

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Introduction

Indonesia and other ASEAN countries have experienced two major economic crises, namely the Asian financial crisis began in mid-1997 and peaked in 1998 and the global economic crisis in 2008 and 2009 (Tambunan, 2010: 156). The East Asian financial crisis is in the spotlight in several ways. The crisis strikes the world's fastest growing economies and pushes the largest financial bailout in history (Sachs and Radelet, 2000). According to Goyal and Chowdry (2000) there are two characteristics that define a country experiencing a financial crisis is the decline in the value of the domestic currency and falling prices of major commodities trade in a country consequently triggered the Asian financial crisis of 1997 - 1998.

In the last two decades, at least two major financial crises have occurred, namely the 1997 East Asian Financial Crisis and the 2008 Global Financial Crisis. If the crisis in 1997 was caused by the lack of transparency and credibility of the government that caused the structural distortions and policies of 2008 economic turmoil mainly triggered by innovation which are fast in financial products such as securitization and risk transfer practices. This is exacerbated

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by inaccurate property speculation and credit ratings. In both cases, the development of the crisis spread to other continents and in a short time, became a global crisis because of the contagious effect in the midst of a globally integrated financial system and the rapid dissemination of information (Corsetti et al 1999).

The crisis of 2008 - 2009 has been named by many economists as the most serious economic or financial crisis since the great Depression of the 1930s. The crisis began in the United States in 2007 and involved financial institutions in many developed countries. According to Subagyo (2010) based on the facts expressed from various media, the global crisis began from the breakdown of subprime mortgages that bankrupted a number of financial institutions in the United States such as Lehman Brothers, AIG and Goldman Sachs. This crisis has affected many countries through various ways such as: exports, investments and remittances (Tambunan, 2010: 157).

Countries in the ASEAN region consist of ten countries: Indonesia, Malaysia, Thailand, Philippines, Cambodia, Vietnam, Myanmar, Singapore, Brunei Darussalam and Laos. In this study only include five countries: Indonesia, Malaysia, Thailand, Philippines and Cambodia five countries are low-income to medium. In particular, Malaysia has the highest income distribution inequality in ASEAN. Brunei Darussalam is not included because it is classified as a developed country. The occurrence of the crisis in 1998 and 2008 gave a considerable and obvious impact for these countries.

Most of the ASEAN countries are developing countries where the economic fundamentals are not strong which causes vulnerable to the economic crisis on the regional level and global level when compared with developed countries like in Europe and the United States.

The existence of these two crises caused some sectors to be affected. Industrial, manufacturing and financial sectors are examples of some sectors affected by the crisis. The financial sector became unstable and resulted in the industrial and manufacturing sectors weakening. The supply of labor is too much and is not balanced with the provision of employment and exacerbated by the crisis causing unemployment problems. Unemployment is called frictional unemployment is unemployment caused by circumstances.

Unemployment and population growth are closely related to the poverty caused by the crisis. Labor is an important input of the factors of production and the high ability has a direct impact on poverty. The decline in job availability during the crisis and post crisis has increased the number of unemployed people. Unemployment can be viewed positively when viewed from an economic point of view. Unemployment is an economic potential that has not been able to be utilized optimally by the state. High controlled but high quality population growth is more effective than high population growth but low quality and causes low unemployment. These two variables are related to each other. The government should pay attention to these variables to create policies aimed at reducing poverty.

Table 1: Number of Unemployed and Growth of Population in 5 Countries ASEAN Year 1997 – 2012

Country	Unemployment (%)		Population Growth (%)	
	1997	2012	1997	2012
Indonesia	4.7	6.1	1.45	1.31
Malaysia	2.4	3.0	2.54	1.55
Thailand	0.9	0.7	1.10	0.38

Country	Unemployment (%)		Population Growth (%)	
	1997	2012	1997	2012
Philipinnes	7.9	7.0	2.22	1.59
Cambodia	1.9	0.2	2.83	1.37

Source: World Bank (2015), processed.

Based on Table 1, The Philippines became the country with the highest unemployment among 5 ASEAN countries in 1997 unemployment reached 7.9% while in 2012 decreased unemployment to 7%. Indonesia is the country with the second highest unemployment rate after the Philippines with 4.7%. No wonder Indonesia has problems with unemployment because Indonesia is a country with the largest population in ASEAN. Unemployment and population growth are highly influential variables. This can be seen from Cambodia's population growth in 1997 reached 2.83% which ranks first. Poverty and underdevelopment are the main reasons Cambodia has the highest population growth in ASEAN. Thailand is the country with the lowest population growth among ASEAN countries that is 1.38% in 1997 and 0.38% in 2012. Thailand's success in controlling population growth is eligible to be imitated by other countries.

The poverty caused by the 1998 crisis has not shown a trend toward stability. In early 2000s the country was affected by the crisis trying hard to restore the economy as before. The fluctuating poverty of the 1998 crisis was again hit by the 2008 global crisis centered in the United States. America is a benchmark of the world's economy, with the weakening of the US economy having an impact on its business partners and trade partners. ASEAN countries are not affected because they have trade relations with the United States.

Table 2: Poverty in 5 ASEAN Countries 1997 - 2012 (%)

Country	1997	2012
Malaysia	6.1	1.7
Philippines	18.32	25.23
Indonesia	22.11	12
Thailand	36.95	12.6
Cambodia	71.95	17.7

Source: World Bank (2015), processed.

Poverty in ASEAN countries has a downward trend, led by Cambodia's country which has the most significant poverty reduction among other countries. A poverty reduction of up to 54 percent in 16 years is a remarkable achievement of a country in poverty alleviation programs. Economic growth with an average of 7.5% per year in the period 1997-2012 became Cambodia's main driver in reducing poverty supported by agriculture, property, garment and tourism sectors. Most other countries also show a downward trend in poverty except the Philippines. Increased poverty in the Philippines is spurred by soaring food prices in the Philippines.

Poverty alleviation is one of the priority programs of the Indonesian government and ASEAN countries. To achieve these objectives, demonstrated through the global cooperation program Millennium Development Goals (MDGs). The seriousness of the government is shown through the issuance of presidential regulation number 15 of 2010 on the acceleration of poverty reduction (Latifah, 2011).

Based on the previous description, the objectives in this study are to test and an-

alyze the effect of GDP per capita, inequality income distribution, unemployment, population growth and government spending on education together to poverty in ASEAN countries during the crisis in 1998 and 2008. Besides that, this study also aims to examine and analyze the influence of GDP per capita growth, inequality income distribution, unemployment, population growth and government spending in education partially to poverty in ASEAN countries during the crisis in 1998 and 2008.

Theoretical Basis

Theory of Poverty

The vicious circle of poverty theory was put forward by a Swedish economist and recipient of the Nobel Prize for Economics, Ragnar Nurkse. This theory explains the causes of poverty in developing countries that are generally newly independent from foreign colonization. In essence, this theory says that poor countries are poor because they are poor. Due to low productivity, a person's income is also low, which is only enough to meet the needs of minimal consumption. That's why they can not save. Whereas saving is the main source of community capital formation (Kuncoro, 2010: 69).

Theory of Economic Growth

The theoretical relationship between economic growth and the rate of unemployment is further explained by Okun's law (Okun's Law). Where in theory it is explained that the role of labor that helps in the process of producing goods and services and the unemployed is not, then an increase in the unemployment rate should be associated with a decrease in GDP. The negative relationship between unemployment and GDP is what is called Okun law (Mankiw, 2007). Okun's law states that "Every 2% decline in Gross Domestic Product (GDP) potential, unemployment rate will increase by 1%". If there is an increase in the production of national output, where in this case the concept used is GDP, it will raise labor demand so that unemployment falls, there will be a negative relationship between GDP and the unemployed. Escribano et al (2009) conducted an empirical study of the impact of infrastructure quality on the productivity of a company by taking the case of manufacturing industry in Africa from 1999 to 2005. The quality of infrastructure in this study considers variables such as adequate ports, energy supply, water availability and transport facilities and communication. While the productivity of the company is calculated from the total output (sales) that successfully marketed. This study concludes that the quality of infrastructure is very influential on the productivity of the company.

Theory of Revenue Distribution

Theory of Income Distribution The U Reverse Hypothesis (Inverted U curve) About Inequality: Kuznetz's theory has given much attention to how the income distribution changes during development. Kuznets in 1955 hypothesized an inverted U curve that initially when development begins, the income distribution becomes more uneven, but after reaching a certain level of development (Kuncoro, 1997: 126).

The Unemployment Theory

The Phillips curve is a curve that describes the trade off between unemployment and inflation. The Phillips curve is a curve derived from the short-run aggregate supply curve: when policy-makers move the economy along the short-run aggregate supply curve, unemployment and inflation move in the direction opposite (Mankiw 2007: 376). The Phillips curve

is one useful way to show aggregate supply, since inflation and unemployment are important measures of economic performance.

Population Growth Theory

In the theory of population growth, Thomas Robert Malthus proposed a theory of the relationship between population growth and economic development called the Malthusian population trap theory. Malthus formulates a concept of diminishing returns that illustrates that the number of populations in a country will be very rapid in the geometrical progression (doubling: 1, 2, 4, 8, etc., whereas food supplies increase only by series (1, 2, 3, 4, 5, etc.) because the land owned by the family is narrower, the marginal contribution to total food production also decreases and income also decreases to a level slightly above subsistence (Todaro 2000: 265).

Methodology and Data

These variables are divided into two types of variables: independent variable and dependent variable. In this study, the independent variable used is GDP per capita, income distribution inequality, unemployment, population growth and government expenditure in the field of education while the dependent variable used is poverty in Indonesia, Malaysia, Thailand, Philippines and Cambodia period 1997 - 2012. The data used in this study is data obtained from the World Bank through World Development Indicators (WDI). In this study the object of research used is the ASEAN countries-5 namely, Indonesia, Malaysia, Thailand, Philippines and Cambodia. The data collected includes poverty, income distribution inequality, per capita GDP, unemployment, population growth and total government spending on education by 1997 - 2012 period.

The analytical model used in this study to determine the level of inequality income distribution, GDP per capita, unemployment, population growth and the amount of government spending in education affect the poverty in 5 ASEAN countries during the crisis period is Fixed Effect Model (FEM) :

$$Pov_{it} = \beta_0 + \beta_1 inequal_{it} + \beta_2 \ln dppercap_{it} + \beta_3 unemp_{it} + \beta_4 popgrow_{it} + \beta_5 gov\exp_{it} + \varepsilon_{it} (1)$$

Where:

Pov = Poverty (%); β = Constants; β1-β7 = Regression Coefficient; Inequal = Inequality level of income distribution; lngdp_percap = GDP Per Capita (US Dollar); Unemp = Unemployment (%); Pop_grow = Population growth (%); Gov_exp = Government spending on education (%); ε = Error Term; i = Country; t = year.

Discussion and Analysis

Based on the estimation results that can be seen in the appendix, it is known that all independent variables affect the variables together but partially there are variables found not significant. The value of inequality coefficient of income distribution of 1.359965 with the level of significance variable is 0,000 at α = 5% or 0.05. The coefficient of income distribution inequality coefficient indicates a unidirectional relationship with poverty. When there is a 1% increase in income distribution gap then poverty will rise by 1.35%.

This is due to the crisis that is increasing the poor. The decline in income during the crisis caused a gap amongst the people that caused the inequality of income distribution to increase. This was in accordance with a study conducted by Chemli and Smida (2013)

which showed that the gini index had a significant and positive effect on poverty. Indicator of inequality is a description of the poor, the deterioration of inequality directly correlates to the poor. The government as a responsible party should take appropriate action in handling the problem of inequality and the poor. Due to the deterioration of inequality makes the positive effects of economic growth achieved not perceived by the poor. Inequality is one of the major obstacles to the growth and economic development of a country.

Regression coefficient variable growth rate of GDP per capita to poverty is equal to -46,93074 with level of significance of variable is 0.000 at α = 5%. The value of this significance shows that GDP per capita is significant to poverty. When there is an increase of 1% of GDP per capita then poverty will fall by 46.93%. The decline in GDP per capita caused by the crisis followed by an increase in the poor population both quantitatively and qualitatively causes the government to respond to this situation to tackle poverty through cash transfer and community empowerment. The results of this study are in accordance with the vicious circle of poverty theory proposed by Nurkse which states that to break the required poverty cycle is an increase in GDP per capita.

The value of unemployment coefficient is -0.9122124 with variable significance level is 0.062 at α = 5% or 0.05. This shows that the unemployment variable has no significant effect on poverty because it exceeds the alpha value threshold. There are several reasons why unemployment has no significant effect on poverty. According to Godfrey (1993) in Yudha (2013) mentions that poverty may not always be related to labor issues. It is also reinforced by the opinion of Arsyad (1997) in Yudha (2013) which states that it is wrong to assume that everyone who does not have a job is poor, while those who work in full are rich.

The regression coefficient variable of population growth to poverty is equal to -6,277567 with level of significance of variable is 0,049 at α = 5%. The value of this significance indicates that population growth has a significant effect on poverty. When there is a 1% increase in population growth then poverty will decrease by 6.27%. There are several things that make population growth a significant effect on poverty. Population growth in the five ASEAN countries in the period 1997 to 2012 is only one to two percent. Low population growth is the country's goal of controlling the population. The controlled population makes it easier for the state to provide jobs for its people and cause the available labor force to be absorbed by available employment.

The regression coefficient of Government expenditure variable in education toward poverty is -2,500903 with significance level of variable is 0.003 at α = 5%. The coefficient value indicates a negative relationship between the Government's Education Expenditure on poverty. When an increase in Government Education Expenditures by 1% then poverty will fall by 2.5%. The government as a regulator has responsibility for the education of its population. Improving the quality of human resources reflects the quality of a nation. The high quality of human resources is expected to increase productivity and ultimately reduce the level of poverty. The importance of education in a country is in accordance with the theory proposed by Romer (1986) in Raz (2012), which urges the importance of science and technology as an engine of economic growth. He argues that there is a capital effect made by the company, which, in turn, creates knowledge. Knowledge triggers positive externalities and prevents long-term growth depreciation.

Conclusion

Based on the results of the analysis and discussion of the effect of GDP per capita, the inequality of income distribution, unemployment, population growth and government ex-

penditure on education towards poverty can be concluded that F test shows GDP per capita, income distribution inequality, unemployment, population growth and government spending on education together - the same affects poverty with a significance level of 0.0000 with an alpha value of 5% or 0.05. on the other side Test T shows GDP per capita, income distribution inequality, population growth and government spending on education individually (partial) affect poverty with significance level reaching 0.049 - 0,038 with alpha value of 5% or 0.05.

Reference

Ahmad, Subagyo. (2010). *Marketing In Business.* edisi pertama, cetakan pertama.Jakarta: Mi tra Wacana Media

Ajija, Shochrul R et al. (2011). Cara Cerdas Menguasai Eviews. Jakarta: Salemba Empat.

Akande, S. A., A.S. Olomola, T.O. Oni., and B.W. Adeoye. (2009). Impact of Price Changes o Poverty:The Nigerian Experince. The Nigerian Institute of Social and Economic Research-Nigeria: .

Ariefianto, M. (2012). Ekonometrika Esensi dan Aplikasi dengan menggunakan Eviews. Jakarta: Erlangga.

Arifianto,W and Setiyono, I. (2013). Pengaruh Pertumbuhan Ekonomi Terhadap Distribusi Pendapatan di Indonesia. Surabaya: .

Arsyad, L. (2010). Ekonomi Pembangunan .Yogyakarta: STIM YKPN.

Astuti, R. (2015). Analisis Pengaruh Jumlah Penduduk, PertumbuhanEkonomi, Pendidikan Dan Kesehatan Terhadap Jumlah Penduduk Miskin Di Indonesia Tahun 2004 – 2012. Yogyakarta: Universitas Negeri Yogyakarta.

Atmadja, A. (1999). Inflasi di Indonesia: Sumber - Sumber Penyebab dan Pengendaliannya. Surabaya. *Jurnal Akuntansi dan Keuangan*, 1(1): 54-67.

Badan Pusat Statistik (BPS). (2000). Indonesia Dalam Angka. Jakarta: BPS.

Badan Pusat Statistik (BPS). (2008). Perkembangan Beberapa Indikator Utama Sosial-Ekonomi Indonesia. Jakarta: BPS.

Badan Pusat Statistik (BPS). (2010). Data dan Informasi Kemiskinan Kabupaten/ Kota. Jakarta: BPS.

Baeti, N. (2013). Pengaruh Pengangguran, Pertumbuhan Ekonomi, Dan Pengeluaran Pemerintah Terhadap Pembangunan MANUSIA Kabupaten/Kota Di Provinsi Jawa TengahTahun 2007-2011. *Economics Development Analysis Journal*, 2(3): 85-98.

Bellinger, W. K. (2007). The Economics Analysis of Public Policy. Routledge: Oxon.

Bordo, M., Eichengreen, B., Klingebiel, D., and Martinez-Peria, M. 2001. Is the Crisis Problem Growing More Severe?".*Economic Policy,* 53-82.

Canova, Fabio. (1994). Were Financial Crises Predictable?. *Journal of Money, Credit, and Banking*, 26(1): 102-124.

Chemli, L., and Smida, M. (2013). Interaction between Poverty, Growth, and Inequality during the Crisis: A Panel Data Study. *International Journal of Economics and Finance*, 5(1): 120-131.

Corsetti, G., Pesenti, P., and Roubini, N. (1999). What caused the Asian currency and financial crisis? *Japan and the World Economy*, 11(1): 305-373.

Escribano, A., Fosfuri, A., & Tribó, J. A. (2009). Managing external knowledge flows: Themoderating role of absorptive capacity. *Research Policy,* 38(1), 96-105.

Firmansyah, R. (2016). Tingkat Kemiskinan Selama Periode Krisis Tahun 1998 Dan 2008 Di 5 Negara ASEAN. Thesis. Surabaya: Universitas Airlangga.

Goyal, A., and Chowdry, B. (2000). Understanding the financial crisis in Asia. P*acific-Basin Finance Journal,* 8(1): 135–152.

Kuncoro, M. (1997). Otonomi dan Pembangunan Daerah. Jakarta. Erlangga

Kuncoro, M. (2010). *Dasar – Dasar Ekonomika Pembangunan Edisi Kelima*. Yogyakarta: UPP STIM YKPN.

Latifah, E. (2011). Harmonisasi Kebijakan Pengentasan Kemiskinan di Indonesia yang Berorientasi Millenium Development Goals. *Jurnal Dinamika Hukum*, 11(3): 402-413.

Mankiw, G. (2007). *Makro Ekonomi.* Jakarta: Erlangga

Raz, A. et al. (2012). Krisis Keuangan Global dan Pertumbuhan Ekonomi: Analisa Dari Perekonomian Asia Timur. Jakarta: Buletin Ekonomi Moneter dan Perbankan.

Sachs, J., and Radelet, S. (2000). The Onset of the East Asian Financial Crisis. Chicago: University of Chicago Press.

Tambunan, T. (2010). The Indonesian Experience with Two Big Economic Crises. *Modern Economy,* 1(1): 156-167.

Todaro, M. P. (2000). *Pembangunan Ekonomi di Dunia Ketiga.* Jakarta: Erlangga.

Yudha, O. (2013). Pengaruh Pertumbuhan Ekonomi, Upah Minimum, Pengangguran Terbuka dan Inflasi Terhadap Kemiskinan di Indonesia Tahun 2009-2011. Thesis. Semarang: Universitas Negeri Semarang.

Appendix

Appendix 1: F-Statistics Test

Number of Observations	80
F(7.50)	39,52
Prob > F	0.0000

Source: Author's Estimation Result, using STATA 12.

Appendix 2: Fixed Effect Model (FEM) Estimation Result

Variable	Cofficient	Prob
inequal	1.359965	0.000
lngdp_percap	-46.93074	0.000
Unempl	-0.9122124	0.062
Pop_grow	-6.277567	0.003
Gov_exp	-2.500903	0.049

Source: Author's Estimation Result, using STATA 12.