

## The Role of Financial Inclusion to Poverty Reduction in Indonesia

AnasIswanto Anwar<sup>1</sup>, Paulus Uppun<sup>2</sup>, Indraswati Tri Abdi Reviani<sup>3</sup>

<sup>1,2,3</sup>(Hasanuddin University, Makassar - Indonesia)

---

**Abstract:** Financial inclusion become a new phenomenon in the global financial system, including in Indonesia. Financial inclusion is often associated with poverty. This study intended to determine the effect of financial inclusion confronted by problems of geography against poverty. We uses panel data in the years of 2005 - 2013 of the 31 provinces in Indonesia. This study found that there is a positive and significant effect of inclusive finance to investment and growth as well as negative and significant impact on poverty, but has no significant effect on economic growth. Artifacts differences higher investment in Java and Sumatra as well as lower poverty when compared to other islands in Indonesia.

**Keywords:** Financial Inclusion, Poverty Reduction, Investment, Economic Growth.

---

### I. Introduction

Poverty is becoming a global issue, and various means have been made to overcome these and share study by economists including in this case is the impact of monetary policy on poverty [1] (Christina D. Romer and David H. Romer, 1999; [2] David Fielding, 2003; [3] JP. Azam 2003; [4] EkobenaFoudaYannick Simon, 2014). In the crisis of 2008 appears a new global phenomenon that became the center of study in a variety of monetary studies that focused attention to community groups unbank , then gave birth to the inclusive financial terms, with different definitions.

Financial inclusion into economic strategy, especially on monetary policy is a major concern, especially in the unbanked community groups. World Bank issued an Inclusive Financial Index, [5] World Bank (2011). Financial inclusive then became a separate study researchers, Agung (2015) find increasing inclusive finance led to increased financial behavior of individuals [6]. Cyn-Young Park and Rogelio V. Mercado, Jr. (2015) found a negative relationship of inclusive finance for poverty [7], Ayyagari M, et al (2013) see access to credit for poverty [8], so with Bruhn, M and I. Love (2013) look at the role of banks in the group of people who are not in contact with the bank [9]. Flug, K., A. Spilimbergo , and E. Wachtenheim ( 1998) to see how access to credit on investments in education [10].

### II. Theory, Empiric And Hypothesis

There is no fixed definition of the financial inclusion. Global Partnership for Financial Inclusion (GPII) explain :*“state in which all working age adults have effective access to credit, savings, payments, and insurance from formal service providers. Effective access involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider, with the result that financially excluded customers use formal financial services rather than existing informal options.”*

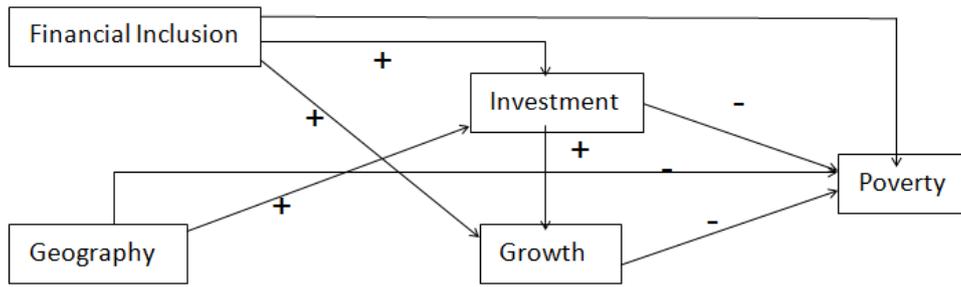
Financial Action Task Force (FATF) define: *“financial inclusion involves providing access to an adequate range of safe, convenient and affordable financial services to disadvantaged and other vulnerable groups, including low income, rural and undocumented persons, who have been underserved or excluded from the formal financial sector”*.

**Reserve Bank of India (RBI)** define , *“process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular, at an affordable cost in a fair and transparent manner by regulated, mainstream institutional players”*.

All of these definitions lead to access society to the banking system, including therein the poor.

Many studies show variety of empirical findings. Panagariya, Arvind (2006) [11] criticizing the opening of new branch banks as a step to reduce poverty, which is somewhat at odds with Ayyagari M , et al (2013) [12] that financial deepening Contributed to Poverty Alleviation in rural areas by fostering entrepreneurship and inducing geographic - sectoral migration, as well as Clarke , G, LC Xu and Zhou H. (2006 ) [13]; Beck , T. , A. Demirgüç - Kunt and R. Levine (2007 ) [14]; and Beck, T., R. Levine and A. Levkov (2010) [15]; Gallup JL (1998) [16]; Hamrullah et.al (2015) [17]; and Quy-Toan Do and Iyer L (2009) [18].

Figure1. Hypothesis Frameworks



III. Method Of Analysis

The model is built in this study is the simultaneous equation models using panel data of the 31 provinces in Indonesia in 2005-2013. In our analysis, poverty is a function of economic growth, investment, financial inclusion, and geography. Economic growth is a function of investment and inclusive finance. Investment is a function of inclusive finance and geography. So this function can be summarized in the form of mathematical function :

$$Y_3 = P (Y_2, Y_1, X_1, X_2) \tag{1.1}$$

$$Y_2 = G (Y_1, X_1) \tag{1.2}$$

$$Y_1 = I (X_1, X_2) \tag{1.3}$$

Since  $Y_3 = \text{Poverty}$ ,  $Y_2 = \text{Growth}$ ,  $Y_1 = \text{investment}$ ,  $X_1 = \text{financial inclusion}$ ,  $X_2 = \text{geography}$  (dummy 1 = Java and Sumatra. 0 = other island in Indonesia)

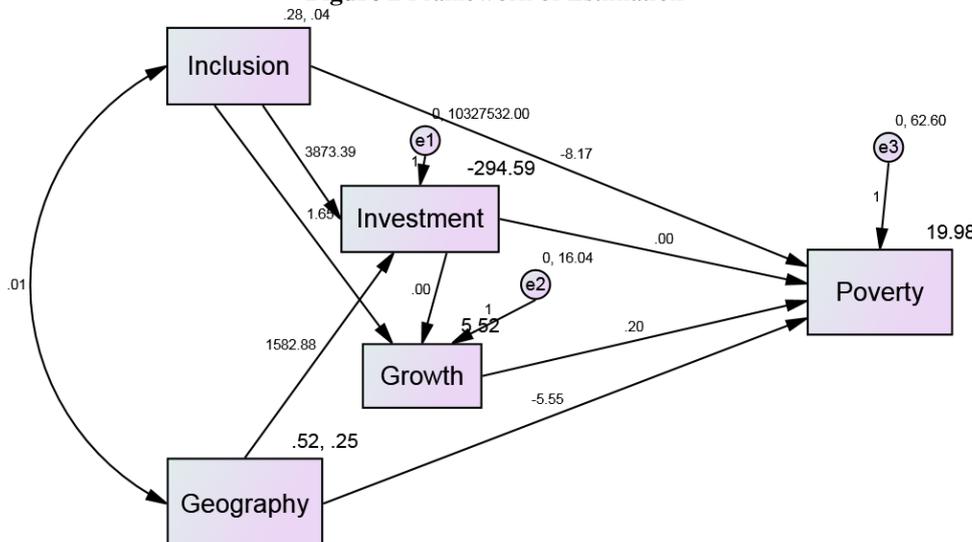
IV. Result

The analysis showed that the model have a good fit as shown in Table goodness of fit index are shown in Table 1.

Tabel 1. Hasil Goodness Of Fit Index

GOODNESS OF FIT INDEX	CUT OFF VALUE	HASIL TEST
X <sup>2</sup> -Chi Square (CMIN/DF)	< DF	0,27
Significance Probability	≥ 0,05	0,599
RMSEA	≤ 0,08	0,000
GFI	≥ 0,90	0,999
AGFI	≥ 0,90	0,977
TLI	≥ 0,95	1,143
CFI	≥ 0,95	1,000

Figure 2 Framework of Estimation



**Table 2** Estimate and Significance Effect Between Variables

			Estimate	C.R.	P
Y1	<---	X1	3873.385567	3.822157	***
Y1	<---	X2	1582.88075	4.082067	***
Y2	<---	Y1	-0.000009	-0.124779	0.900698
Y2	<---	X1	1.649472	1.273309	0.202908
Y3	<---	X1	-8.167566	-3.165377	0.001549
Y3	<---	X2	-5.551335	-5.626344	***
Y3	<---	Y1	-0.000244	-1.640421	0.100918
Y3	<---	Y2	0.200051	1.675116	0.093911

Financial inclusion showed a positive and significant effect on the level of 1 percent of the investment value of the coefficient of 3873.3855. This shows that the financial inclusion has significant effect on investment, or it can be said that any increase financial inclusion will increase the investment of 3873.3855 billion rupiah in Indonesia.

Geography shows a positive and significant difference in the level of 1 percent of the investment value of the coefficient of 1582.88. This shows that there are differences significant investment in Indonesia according to geographic location, or it can be said that there are differences in investment of 1582.88 billion rupiah higher in Java and Sumatra. Financial inclusion show a negative and significant effect on the level of 1 percent against poverty with coefficient 8:17. This shows that the financial inclusion has significant impact on poverty, or it can be said that any increase in the inclusive finance will reduce poverty by 8.17 percent in Indonesia. Economic growth showed a positive and significant effect on the level of 10 percent against poverty with a coefficient of 0.2. This shows that economic growth has a significant impact on poverty, or it can be said that any increase in the inclusive finance will increase poverty by 0.2 percent in Indonesia. Geography shows a positive and significant difference in the level 1 percent against poverty with coefficient -5.55. This shows that there are differences in poverty according to geographic location in Indonesia, or it can be said that there are differences in poverty by 5.55 percent lower in Java and Sumatra.

Economic growth showed a positive and significant effect on the level of 10 percent against poverty with a coefficient of 0.2. This shows that economic growth has a significant impact on poverty, or it can be said that any increase in the inclusive finance will increase poverty by 0.2 percent in Indonesia.

## V. Conclusion

There is a positive and significant influence of inclusive finance to investment and growth as well as negative and significant impact on poverty, but has no significant effect on growth. Artifacts differences higher investment in Java and Sumatra as well as lower poverty when compared to other islands in Indonesia.

## References

- [1]. Romer, C., D., and Romer, D., H., (1999), "Monetary Policy and the Well-Being of the Poor", *Economic Review*, (Q I):21–49.
- [2]. David Fielding (2003), "How Does Monetary Policy Affect the Poor? Evidence from the West African Economic and Monetary Union" Discussion Papers in Economics number 03/11, Department of Economics University of Leicester
- [3]. J-P. Azam (2003) "Poverty and Growth in the WAEMU After the 1994 Devaluation", mimeo, UNU/WIDER, Helsinki, Finland
- [4]. FoudaEkobena S.Y. (2014), "Does Monetary Policy Really Affect Poverty?" Article Workshop on Monetary Policy and Inequality April 3-4, 2014 Federal Reserve Bank of Atlanta
- [5]. World Bank (2011), "Financial Inclusion" Global Financial Development Report.
- [6]. Agung Setiawan M (2015), "Analisis Keterkaitan In klusi Keuangan Terhadap Perilaku Keuangan Personal Di Wilayah Kota Dan Kabupaten Provinsi Jawa Timur" Article, FE Brawijaya University.
- [7]. Cyn-Young Park and Rogelio V. Mercado, Jr (2015), "Financial Inclusion, Poverty, and Income Inequality in Developing Asia" ADB Economics Working Paper Series No 426.
- [8]. Ayyagari M, Beck T and Hoseini M (2013), "Finance and Poverty: Evidence from India" Discussion Papers in its series CEPR Discussion Papers with number 9497
- [9]. Bruhn, M and I. Love (2013) "The economic impact of banking the unbanked: evidence from Mexico" *Journal of Finance* forthcoming
- [10]. Flug, K., A. Spilimbergo, and E. Wachtenheim (1998). "Investment in Education: Do Economic Volatility and Credit Constraints Matter?" *Journal of Development Economics* 55 (2): 465–81.
- [11]. Panagariya, Arvind (2006). "Bank Branch Expansion and Poverty Reduction – A Critique." Columbia University, mimeo.
- [12]. Ayyagari M, Beck T and Hoseini M (2013), "Finance and Poverty: Evidence from India" Discussion Papers in its series CEPR Discussion Papers with number 9497
- [13]. Clarke, G, L.C. Xu and H. Zhou, (2006) "Finance and Income Inequality: What Do the Data Tell Us?", *Southern Economic Journal* vol. 72(3), pages 578-596.
- [14]. Beck, T., A. Demirgüç-Kunt and R. Levine, (2007) "Finance, Inequality and the Poor", *Journal of Economic Growth*, 12(1), 27-49.
- [15]. Beck, T., R. Levine and A. Levkov (2010), "Big Bad Banks? The Winners and Losers from Bank Deregulation in the United States", *Journal of Finance*, vol. 65(5), pages 1637-1667.
- [16]. Gallup JL, Sachs JD, and Mellinger AD (1998), "Geography and Economic Development" NBER Working Paper No. 6849 Issued in December NBER Program(s): ITI
- [17]. Hamrullah, Basri Hasanuddin, Agus salim and Nursini (2015), "GOVERNMENT ROLE TO HUMAN CAPITAL OF ENDOGENOUS GROWTH IN EASTERN INDONESIA" *IOSR Journal* Volume 18, Issue 4 .Ver. V , PP 19-22
- [18]. Quy-Toan Do and Iyer L (2009), "Geography, Poverty and Conflict in Nepal" Working Paper 07-065, Harvard Business School.