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ECONOMIC GROWTH AND POVERTY REDUCTION IN VIETNAM: AN EMPIRICAL ANALYSIS OF THE GROWTH–POVERTY NEXUS (1992–2018)

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Abstract

This study examines the extent to which economic growth contributes to poverty reduction, using Vietnam as a case study. The relationship between economic growth and poverty reduction has remained a major issue in development economics, with many scholars arguing that sustained growth improves living standards, creates employment opportunities, and raises household incomes, thereby reducing poverty. However, some studies suggest that growth does not automatically benefit the poor, particularly where income inequality and unequal distribution of opportunities persist. Against this background, the study investigates whether Vietnam's economic growth has significantly reduced poverty over the period 1992 to 2018. The present paper investigates how much economic growth contributes to poverty alleviation, on the basis of Vietnam's case. The link between economic growth and poverty alleviation is a central issue in development economics, and a large number of studies have shown that sustained economic growth contributes to an increase of living standards, of employment and of household incomes, which in turn results in poverty alleviation. Others studies indicate, however, that growth is not necessarily good for the poor, especially when income inequality and inequitable distribution of opportunities remain. In this context, the study seeks to answer the question of whether Vietnam's economic growth has had a significant impact on alleviating poverty from 1992 to 2018. The data used in the study comes from secondary sources from World Bank's World Development Indicators. The economic growth is proxied by Real Gross Domestic Product (RGDP) and poverty is proxied by poverty headcount ratio. The poverty data was not available for certain years; these were filled in by means of linear interpolation. Analysis is done using graphical trend analysis, Pearson correlation and Ordinary Least Squares (OLS) regression to analyse the relationship between the variables. The results show that there is a significant and negative correlation between growth and poverty in Vietnam. The graphical analysis reveals that the level of poverty has decreased significantly during the study period as GDP steadily increased. The result of the correlation shows that there is a very high level of negative association between economic growth and poverty (at about -0.93). Likewise, the regression result reveals that the economic growth is negative and significantly affecting the reduction of poverty. In particular, a 1% growth of RGDP would lead to a reduction in poverty of approximately 1.71%. Economic growth is therefore a very important determinant in Vietnam's poverty reduction, the study finds. With this in mind, it suggests developing countries define their growth policies as inclusive and sustained to create more jobs, increase incomes, and ensure that the fruits of growth reach poorer households.

Keywords: Economic Growth, Poverty Reduction; Poverty Headcount Ratio; Growth-Poverty Nexus

1. Introduction.

Economic growth is considered one of the supreme and significant mechanisms used in lessening poverty level and improving the quality of lives in both developed as well as developing countries. In the word of (Rodrik 2007, pp.1-2) "Historically, nothing has worked better than economic growth in enabling societies to improve the life chances of their members, including those at the very bottom." Scholars define poverty in many ways. According to (Neaime and Gaysset 2018), a person who cannot sustain a subsistent living level is said to be in poverty. Additionally, (Zhu et al. 2022) argued that lowering poverty levels is a key component of sustainable development. They argue that poverty, in its different forms, is a worldwide problem that has driven millions of people to the brink of starvation.

Economic expansion brings about positive feedback loops that boost prosperity for all. Stable job markets and rising living standards encourage families to invest in their children's education, which in turn fosters a growing population of entrepreneurs who can exert positive social and political pressure. To effectively reduce poverty, researchers have argued, policies should be enacted that promote rapid and sustained economic growth and development (Nanda 2019; Erlando et al. 2020; Li et al. 2021). The underlying experience of the past 10 decades of developmental study and policy analysis is that economic growth is an effective way to lift masses out of poverty and help them attain their wider life goals (Moh et al. 2017; Balaji 2020; Gutiérrez-Romero and Ahamed 2021; Shuai et al. 2021). Economic expansion creates jobs and increases the need for labour, the poor's most valuable private asset and advantage (Zhang et al. 2019; Aghaei and Lawell 2020; Li et al. 2021). Therefore, increasing job opportunities boosts economic growth.

Numerous studies, both within and between nations, have demonstrated the crucial role that economic growth plays in bringing about the aim of poverty eradication. A leading study conducted in the 1990s involving 14 nations found that during that decade, the poverty rate fell in 11 countries that saw strong growth while it grew in 3 countries that experienced relatively poor economic growth. Countries with rapid economic growth, such as Vietnam, El Salvador, Tunisia, India, Ghana, and Uganda, have made remarkable progress in reducing poverty (Nanda 2019; Zhu et al. 2022).

This assignment will focus on Vietnam's economic growth and poverty rate by reviewing credible research from selected researchers. To put it simply, Vietnam is a developing country with a lower middle income and one of the world's fastest growing economy (World Bank Group 2019) . According to the World Bank Group, the Vietnam is a shining example of successful economic reform and poverty reduction. Meaning, more than 45 million people were rescued from poverty between 2002 and 2018, according to estimates, causing a dramatic drop in the poverty rate from over 70% to just below 6% over that time frame. Almost 70% of the workforce is still dependent on the agricultural sector, despite these advances; the country currently ranks 128 out of 180 in the world (Nguyen et al. 2020). (Zhu et al. 2022) report that between 1990 and 2018, the average Vietnamese person's salary increased from $500 to almost $3,756.5.

2. Literature Review and Empirical Evidence

While the literature is divided on whether economic growth helps alleviate poverty, the majority believes that it does. While classical economics holds that those living in poverty have primarily themselves to blame (Davis and Sanchez-Martinez 2015), neoclassical theories argue that poverty is largely outside of one's control and is caused by factors such as market failure, lack of access to social and private assets, and inadequate health care and education (Partridge and Rickman 2008; Davis and Sanchez-Martinez 2015). In spite of this, the neoclassical and Keynesian schools of economic thought agree that rising income is necessary to reduce poverty (Davis and Sanchez-Martinez 2015).

The assumption that economic growth will reduce poverty by stimulating income growth for all has been widely held for quite some time (McCulloch 2003; Partridge and Rickman 2008; Nguyen et al. 2020). This assumption, according to (Lennock and Ehrenpreis 2003; Dollar et al. 2016), has strong empirical backing from the experiences of several countries that have achieved high rates of economic growth while simultaneously cutting their poverty rates in half or more. If the economy keeps growing, then more people will benefit from the wealth created, so the argument goes (Shuai et al. 2021). This claim is supported by data from developing-world studies (Partridge and Rickman 2008; Lee et al. 2014; Lee and Rodríguez-Pose 2016). One counterargument is that growth's economic benefits are unfairly distributed (Organisation for Economic Co-operation and 2014). It has been argued by other researchers (Zhu et al. 2022) that this may also have a negative impact on economic growth because it prevents the poor from contributing as much as they could to the economy.

Academics have argued that various factors, depending on the specifics of each country, are to blame for the widespread problem of poverty. (Nguyen et al. 2019) identify the following factors as

primary contributors to poverty in Vietnam: insufficient production capital; insufficient facilities for productive purposes; poor nature of labour and health; poor human capital; large family size; insufficient employment opportunities; illiteracy; and the behaviours of the poor that perpetuate their situation. Poverty in Vietnam appears to be multifaceted and multidimensional, as it is in most developing countries (Zhu et al. 2022), which according to (Mohsin et al. 2021) is attributed to myriads of factors as mentioned by (Nguyen et al. 2019).

To offer support for the inverse connection between poverty and economic growth, (Ferreira et al. 2010) demonstrate using a panel study on states from Brazil that growth in output is associated with reduction in poverty with growth of service output exerting greater reduction effect as compared to the growth of agricultural or industrial output. However, (Pessoa and Reenen 2013) contend that there is no much link between output growth and increase in income of majority of population especially in the early 2000s in most developed nations. Their argument is based on (Dorling 2012) who observed an increasing income inequality problem among the UK population. Hence, (Organisation for Economic Co-operation and Development 2014) reports that depending on economic growth only for poverty reduction may not be an effective strategy.

Some have argued that there are two main avenues through which wage increase and economic growth can work together to reduce poverty (Houston 2005). Pay raises are one means, while rising employment is another. The rising productivity is believed to strengthen the bargaining position of workers, leading to higher salaries. In order to alleviate poverty in a society, wage growth must be prioritised because it is a key factor in household incomes. However, as shown by (Mishel et al. 2009), pay increases in the United States around the year 2000 benefited only the highest-paid workers. The pattern described by (Lansley and Reed 2013) was also observed in the United Kingdom, with the advantages of increased productivity going to management and shareholders rather than to the lowest-paid workers. Therefore, they draw the conclusion that rising wages as a result of economic growth might not lead to less poverty.

The second way in which economic growth can alleviate poverty is via generating employment. This path, it has been argued, will be determined by the variety and scope of new employment possibilities. It has been argued (Partridge and Rickman 2008) that if the number of people with jobs increased, it would alleviate poverty since more people would be able to afford to buy food and shelter. According to (Phimister et al. 2006), Increases in employment lead to higher wages for workers, which in turn helps alleviate poverty.

3. Methodology

To offer a concise study of the influence of economic growth on poverty, it is necessary to utilise country-specific statistics. In this instance, Vietnam is chosen to explore if economic progress has a detrimental influence on poverty.

3.1 Data and Variables

This research relies on information gathered from 1992-2018 from the World Bank's World Development Indicator database. As of 2018, there was no new information about poverty in Vietnam to report. As a result, this factored into picking the sample time frame. In order to assess the state of the Vietnam’s economy, real gross domestic product (RGDP) and the poverty head count ratio will be used as employed by (Nguyen et al. 2020; Zhu et al. 2022) in the case of Vietnam and (Omar & Inaba 2020) in the case of developing country studies respectively. Since poverty headcount ratio statistics were not available for every year in Vietnam or many other developing countries, this study had to adopt a linear interpolation method to make up for the gaps. It is anticipated that this will not impact the series' trend or the analysis's overall goal.

3.2 Techniques of analysis

To answer the research question of whether or not economic expansion alleviates poverty in Vietnam, this study makes use of graphs, descriptions, correlations, and simple regression analysis. Ordinary Least Squares (OLS) was used to estimate the regression equation, while Pearson's correlation was used to determine the degree of association between the two variables.

3.3 Model Specification

The following simple Pearson correlation coefficient equation and simple regression equation are specified for the purpose of estimation.

$$r_{xy} = \frac{\sum(x-\bar{x})((y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}} \quad ----------(1)$$

In this equation, poverty is denoted by x and economic growth by y, while r takes values between -1 and +1. If r is positive, economic growth in Vietnam will increase the number of people living in poverty, whereas a negative value of r will have the opposite effect. Following is the standard form of the regression equation:

$$lnpvl_t = \alpha + \beta lnrgdp_t + u_t \quad ----------(2)$$

Where $lnpvl_t$ represents log of poverty headcount ratio in Vietnam and $lnrgdp_t$is the natural log of RGDP which represents economic growth in the country at time t. This measure was used by (Nguyen et al. 2020; Omar and Inaba 2020). u_t is the error term which accounts for other factors that are not captured by equation (2).

4. Results and Discussion

4.1 Graphical Analysis of Economic Growth and Poverty Reduction in Vietnam

In time series analysis, the first step is to do a visual inspection of the variables to identify key trends and outliers. The growth in GDP (as measured by the log of GDP) and the rate of poverty in Vietnam from 1992-2018 are of particular interest here.

Fig. 1: Log of GDP at Constant International Dollar (2017 PPP)

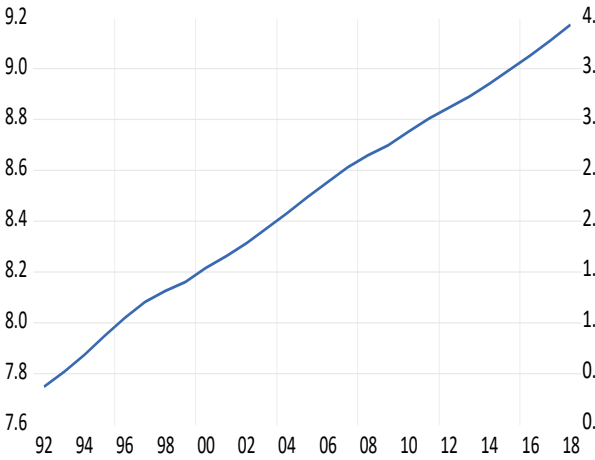
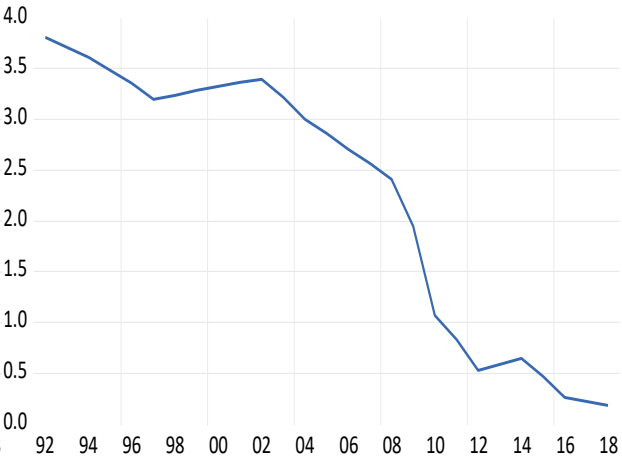


Fig. 2: Log Poverty headcount Ratio at $2.15 a day (2017 PPP)



Source: *Constructed using data from Vietnam from WDI's data base, (2018) using Eviews12*

Figure 1 and Figure 2 indicate that, across the sample period, the poverty headcount ratio in Vietnam decreased as the log of GDP increased. Income per capita increased from 7.75% to 8.08% between 1992 and 1997, and the poverty rate fell significantly from 3.81% to 3.19% during the same period. Even though GDP increased from 8.13% in 1998 to 8.31% in 2002, the poverty rate remained nearly unchanged throughout that period, though with a minor increasing trend. The number of Vietnamese people living in poverty has dropped dramatically, from 3.40% in 2002 to 0.18% in 2018. A similar increase in GDP from 8.31% in 2002 to 9.17% in 2018 can be seen here. Both charts show a statistically significant inverse correlation between Vietnam's economic growth and the country's poverty rate. There has been a general upward trend in the economy, and more people are being pulled out of poverty as a result.

4.2 Table 1: Correlation Analysis

An estimated correlation between Vietnam's poverty rate and GDP growth is shown in the table below. Statistical evidence suggests that a rise in GDP per capita helps reduce poverty in Vietnam. Additionally, the data demonstrates a negative coefficient of nearly minus one (-0.93) between economic growth and poverty, suggesting that the growing economy in Vietnam is having a major effect on lowering poverty rates.

Covariance Analysis: Ordinary
Date: 12/29/22 Time: 13:01
Sample: 1992 2018
Included observations: 27

Correlation	LGDP_PE...	LPPOVER...
LGDP_PER_CAP...	1.000000	
LPPOVERTY_HE...	-0.934164	1.000000

The result of the above table is consistent with the graphical result shown in figure 1 and figure 2 where the two graphs are negatively related.

4.3 Regression Result

Table 2: E-Views Output Result of the Regression of *lnrgdp* on *lnpvl* in Vietnam

Dependent Variable: LNPVL
Method: Least Squares
Date: 12/29/22 Time: 13:09
Sample: 1992 2018
Included observations: 27

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	48.99573	4.122380	11.88530	0.0000
LNRGDP	-1.706771	0.154309	-11.06071	0.0000

R-squared	0.830324	Mean dependent var	3.407388
Adjusted R-squared	0.823536	S.D. dependent var	0.960986
S.E. of regression	0.403687	Akaike info criterion	1.094832
Sum squared resid	4.074073	Schwarz criterion	1.190819
Log likelihood	-12.78023	Hannan-Quinn criter.	1.123374
F-statistic	122.3392	Durbin-Watson stat	0.128740
Prob(F-statistic)	0.000000		

The regression result of the effect of economic growth on poverty reduction in Vietnam is presented in table 2 above. The result shows that the coefficient of lnrgdp is (-1.707) with a t-statistic of (-11.061) and p-value of (0.000). This negative coefficient indicates that the log of rgdp has a negative and statistically significant effect on poverty in Vietnam. The result shows that for every 1 percent increase in rgdp, on the average, poverty level in Vietnam decreases by (1.71) percent. This means that an increase in economic growth leads to more than proportionate decrease in poverty. This result is consistent with most of the previous findings regarding the relationship between economic growth on poverty in Vietnam. For instance, in a recent study, (Zhu et al. 2022) found a negative relationship between poverty and economic growth in Vietnam.

The R-squared of (0.830) in table 2 indicates that about 83% of the variations in poverty is explained by the log of rgdp in Vietnam. In other words, economic growth in Vietnam account for 83% of the changes in poverty reduction in Vietnam. The remaining 17% of the changes can be explained by other factors outside economic growth. These factors can include government policies among others. The value of Durbin-Watson stat is (0.128) which is less than 2

clearly indicates that the model has positive autocorrelation.

4.4 Test of Heteroskedasticity

Table 3: Heteroskedasticity Test Result

F-statistic	0.291692	Prob. F(1,25)	0.5939
Obs*R-squared	0.311394	Prob. Chi-Square(1)	0.5768
Scaled explained SS	0.078388	Prob. Chi-Square(1)	0.7795

The result in table 3 shows the LM (Obs*R-squared) test result for heteroskedasticity in the residuals of the regression in table 2. The null hypothesis for this test is that the error variance is homoscedastic (i.e., the residual has a constant error variance). The probability value for this test is (0.5768) indicating that the null hypothesis cannot be rejected. This means that there is no problem of heteroskedasticity in the residual of the regression in table 2.

5. Conclusion and Recommendations

This study uses Vietnam as a case study country to investigate the relationship between economic growth and the poverty reduction. While this issue has been debated for a long time in the academic literature, empirical evidence also offers support in most countries that indeed economic growth is a viable tool for poverty reduction, particularly in developing countries. This is especially the case in countries where poverty rates are high. Therefore, this study provides more support to the prior literature (Nguyen et al. 2020; Shuai et al. 2021; Zhu et al. 2022) by suggesting that economic expansion leads to a decrease in the amount of people living in poverty. The findings of the graphical, correlation, and regression analyses are all in agreement with the hypothesis that increased economic growth in Vietnam leads to decreased levels of poverty.

References

Aghaei, M. and Lawell, C. Y. C. L. (2020) Energy, economic growth, inequality, and poverty in Iran. *Singapore economic review* 67 (2), 733.

Balaji, M. (2020) Negotiating poverty line-study on density effect around the poverty line for Indian States. *Singapore economic review* 65 (supp01), 139-160.

Davis, E. P. and Sanchez-Martinez, M. (2015) *Economic theories of poverty*. Joseph Rowntree Foundation.

Dollar, D., Kleineberg, T. and Kraay, A. (2016) Growth still is good for the poor. *European economic review* 81, 68-85.

Dorling, D. (2012) Editorial-Inequality and Injustice: Some News from Britain. *Urban geography* 33 (5), 621-629.

Erlando, A., Riyanto, F. D. and Masakazu, S. (2020) Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. *Heliyon* 6 (10), e05235-e05235.

Ferreira, F. H. G., Leite, P. G. and Ravallion, M. (2010) Poverty Reduction without Economic Growth? Explaining Brazil's Poverty Dynamics, 1985-2004. *Journal of development economics* 93 (1), 20-36.

Gutiérrez-Romero, R. and Ahamed, M. (2021) COVID-19 response needs to broaden financial inclusion to curb the rise in poverty. *World development* 138, 105229-105229.

Houston, D. (2005) Employability, Skills Mismatch and Spatial Mismatch in Metropolitan Labour Markets. *Urban studies (Edinburgh, Scotland)* 42 (2), 221-243.

Lansley, S. and Reed, H. (2013) *How to boost the wage share*. TUC.

Lee, N. and Rodríguez-Pose, A. (2016) Is There Trickle-Down from Tech? Poverty, Employment, and the High-Technology Multiplier in U.S. Cities. *Annals of the American Association of Geographers* 106 (5), 1114-1134.

Lee, N., Sissons, P., Hughes, C., Green, A., Atfield, G., Duncan, A. and Rodríguez-Pose, A. (2014) *Cities, growth and poverty: evidence review*. St. Louis: Federal Reserve Bank of St Louis. https://go.exlibris.link/HTWcX5zC

Lennock, J. and Ehrenpreis, D. (2003) Good health: a cornerstone of development: ill-health and disease are now recognised as barriers to economic growth in developing countries. Pro-poor policies are needed to tackle these problems, through Doha and beyond. (World health). *The OECD observer*, 28.

Li, C., Guo, M., Li, S. and Feldman, M. (2021) The Impact of the Anti-Poverty Relocation and Settlement Program on Rural Households' Well-Being and Ecosystem Dependence: Evidence from Western China. *Society & natural resources* 34 (1), 40-59.

McCulloch, A. (2003) Local labour markets and individual transitions into and out of poverty: evidence from the British Household Panel Study waves 1 to 8. *Environment and Planning A* 35 (3), 551-568.

Mishel, L. R., Bernstein, J. and Shierholz, H. (2009) *The state of working America: 2008-2009.* Cornell University Press.

Moh, T., Warrad, d. and Muhtaseb, B. M. A. (2017) Trade Openness and Inclusive Economic Growth: Poverty Reduction through the Growth – Unemployment Linkage. *International journal of economics and financial issues* 7 (2), 348-354.

Mohsin, M., Ullah, H., Iqbal, N., Iqbal, W. and Taghizadeh-Hesary, F. (2021) How external debt led to economic growth in South Asia: A policy perspective analysis from quantile regression. *Economic analysis and policy* 72, 423-437.

Nanda, K. (2019) Dynamics between bank-led financial inclusion and economic growth in emerging economies: The case of India. *International Journal of Development and Conflict* 9 (1), 95-121.

Neaime, S. and Gaysset, I. (2018) Financial inclusion and stability in MENA: Evidence from poverty and inequality. *Finance research letters* 24, 230-237.

Nguyen, H. H., Nguyen, N. V. and Head of Department of Finance and Banking, T. V. U. (2019) Factor Affecting Poverty and Policy Implication of Poverty Reduction: A Case Study for the Khmer Ethnic People in Tra Vinh Province, Viet Nam. *The Journal of Asian finance, economics, and business* 6 (1), 315-319.

Nguyen, H. T. T., Nguyen, C. V., Nguyen, C. V. and Faculty of Environmental, C. C. a. U. S. T. N. E. U. (2020) The Effect of Economic Growth and Urbanization on Poverty Reduction in Vietnam. *The Journal of Asian finance, economics, and business* 7 (7), 229-239.

Omar, M. A. and Inaba, K. (2020) Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. *Journal of economic structures* 9 (1), 1-25.

Organisation for Economic Co-operation and, D. (2014) *All on board: Making inclusive growth happen.* OECD Paris.

Partridge, M. D. and Rickman, D. S. (2008) Distance from urban agglomeration economies and rural poverty. *Journal of regional science* 48 (2), 285-310.

Pessoa, J. P. and Reenen, J. V. (2013) *Decoupling of Wage Growth and Productivity Growth? Myth and Reality.* St. Louis: Federal Reserve Bank of St Louis. https://go.exlibris.link/c0zLD7h6

Phimister, E., Theodossiou, I. and Upward, R. (2006) Is it easier to escape from low pay in urban areas ? Evidence from the United Kingdom. *Environment and planning. A* 38 (4), 693-710.

Rodrik, D. (2007) *One economics, many recipes: globalization, institutions, and economic growth.* Princeton, N.J;Woodstock;: Princeton University Press.

Shuai, J., Liu, J., Cheng, J., Cheng, X. and Wang, J. (2021) Interaction between ecosystem services and rural poverty reduction: Evidence from China. *Environmental science & policy* 119, 1-11.

World Bank Group (2019) *Vietnam Development Report 2019 : Connecting Vietnam for Growth and Shared Prosperity*. Hanoi: Hong Duc Publishing. 5904-5157. https://go.exlibris.link/RZXbl16g

Zhang, Y., Filipski, M. J. and Chen, K. Z. (2019) Health insurance and medical improvement in rural China: Evidence from Guizhou Province. *Singapore economic review* 64 (3), 727-745.

Zhu, Y., Bashir, S. and Marie, M. (2022) Assessing the Relationship between Poverty and Economic Growth: Does Sustainable Development Goal Can be Achieved? *Environmental science and pollution research international* 29 (19), 27613-27623.