Journal of Economics and Sustainable Development www.iiste.org
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.14, No.1, 2023

Income Inequality and Economic Growth Nexus in Ethiopia: A Critical Review

Biru Gelgo[1]* Temesgen Hirko[2]
1 Jimma University, PhD candidate in Agricultural Economics
2 Jimma University, PhD candidate in Industrial Economics
* Corresponding author, Email: birugelgo@gmail.com

Abstract
The relationship between income inequality and economic growth is not well established in the growing literature. To contribute towards filling this information gap, this paper reviews the relationship between income inequality and economic growth in Ethiopia. Grey literature including journal articles, conference proceedings, working papers, dissertations, reports, and books from internationally recognized institutions were used for the review. Literature indicates that, there were similarities in the trends of the Gini coefficient and real GDP in Ethiopia. The growth-inequality nexus remains paradoxical. Income inequality has been widely presented as having a negative relationship with economic growth in this country, while a positive relationship has also been demonstrated. However, given the country's current geopolitical and institutional environments, the government should prioritize addressing income inequality and making economic growth more inclusive and sustainable in the short run. For the long-term growth of the Ethiopian economy, all economic actors should get equal opportunities based on their efforts in economic activities.
Keywords: Inequality-growth, Income inequality, Economic growth, Ethiopia.
DOI: 10.7176/JESD/14-1-03
Publication date: January 31st 2023

1. Introduction

Income inequality conceptually represents the degree of income distribution in an economy. In a modern society, however, income inequality is not only an economic problem but also a political and social problem (Getaye 2021). It shapes the opportunities that people can get in life; access to good educational outcomes and health, influencing human and productive potentials of the economy. Kuznets (1955) is among the first to empirically investigate the dynamic nexus between economic growth and income inequality. He notes that during the early stages of economic growth, income inequality within a nation increases. However, as the economy matures, labor preferences shift from the traditional to the industrial sector, and income inequality declines. *Political economists argue that i*n a highly unequal society, social demand for redistribution influences private investment and therefore economic growth negatively (Ehrhart 2009). In a democratic society, where the median voter is relatively poor, a higher tax rate is more likely to be voted for by the majority in the expectation of higher net income (Meltzer and Richard 1981). If the government is not democratic, voters are likely to march against it through protests and riots, impeding economic growth. With this theoretical basis, the growth-inequality nexus has received a lot of attention in the development literature over the last few decades.

As such, several economists have recently worked to quantify the relationship between economic growth and income inequality, as well as to identify key areas for intervention and provide optimal economic policy options. Some of them show that income inequality has a negative impact on economic growth (ACBF 2017, Amar and Zghidi 2016, Bénabou 1996, Fosu 2008, Getaye 2021, Jin and Lee 2017, Madsen, Islam, and Doucouliagos 2018, Vo et al. 2019). Some others provide favorable effect of income inequality to the economic growth (ACBF 2017, Girma and Shete 2018, Majeed 2016, Wan, Lu, and Chen 2006, Barro 2000). Non-significant relationships (ACBF 2017, Barro 2000, Nindi and Odhiambo 2015, Wan, Lu, and Chen 2006) and mixed relationships were also reported (Barro 2000, Geda, Shimeles, and Weeks 2009, Gjerde 2019). However, the majority of the studies underscore that in the presence of high initial income inequality, growth is less effective in addressing economic and social problems, as when the distributional pattern of economic growth favors the non-poor.

In Ethiopia, rapid average economic growth has been experienced from 1995 – 2011, while income inequality remained nearly stable at low levels (Cornia and Martorano 2019). Odusola (2018) notes that Ethiopia's income inequality remains low at less than 0.399, with a slightly decreasing trend between 1993 and 2011. According to Girma and Shete (2018), income inequality in Ethiopia has been rising in urban areas from 2002 to 2017, while it has varied significantly in rural areas. On the other hand, despite average per capita economic growth of 4%, there was no significant change in Ethiopia's income distribution between 2000 and 2006 (Geda, Shimeles, and Weeks 2009). Nonetheless, given the reportedly increasing number of people in this country who rely on aid for their daily consumption needs, the current income inequality pace is likely to worsen in the future. As a result, without appropriate policies and institutions, Ethiopia's stagnant inequalities would

perpetuate unequal opportunities and social divisions, deepening political divides and potentially leading to violent conflict, impeding economic growth. Furthermore, conflicting results were widely reported. For instance, Getaye (2021) reports a negative relationship between income inequality and economic growth in Ethiopia, whereas Girma and Shete (2018) report a positive relationship. Overall, the varying results emphasize the importance of further evidences in this area. In an attempt to contribute in filling this information gap, this paper reviews income inequality and economic growth nexus in Ethiopia. Grey literature which includes journal articles, conference proceedings, working papers, dissertations, reports and books of internationally recognized institutions were used for the review.

Structurally, this paper proceeds to the discussion section, which presents the detailed theoretical underpinnings of the topic and empirical works related to the growth-inequality nexus. Finally, it wraps up with conclusions and policy implications; presenting the review's inferences and key messages.

2. Discussion

2.1. Theory of economic growth and income inequality: an overview

Theoretical concepts developed in the first half of the twentieth century provided solid foundations for inequality-growth nexus studies. The theory developed by Kuznets in 1950s is the most widely used theory of the dynamics of the inequality-growth nexus. According to Kuznets (1955), income inequality within a country rises during the early stages of economic growth. That is, in the early stages of economic growth, there are positive relationships between income inequality and economic growth. Higher income inequality allows for greater savings at this stage, increasing investments and thus economic growth. In the long run, once the economy reaches the stage described by Kuznets as developed, labor preferences will shift. Industrial sectors that are technologically advanced and pay well attract workers, increasing individual income and decreasing inequalities.

According to Ehrhart (2009), in a highly unequal society, the social demand for redistribution is high. Governments use distortionary taxes to fund redistribution transfers, which has a negative impact on private investment and slows economic growth. Economically, a higher distortionary tax regime to finance redistribution reduces the rate of human and physical capital accumulation, lowering after-tax return and stifling economic growth. Politically, the effect of income inequality can be explained, based on the median voter hypothesis of Meltzer and Richard (1981).

The net gains from the redistributive policy will be positive for voters whose income is less than the average market income. Net gains will be negative for those with higher-than-average income. Because all agents are voters with equal political rights in this case, the equilibrium tax rate will be determined by majority vote. The majority will vote for the taxation preferred by the median-income voter. The median voter's tax preferences, on the other hand, are determined by the relative position of his or her income in the market. In a highly unequal society, the median voter's income is lower than the average and is considered low. As a result, he or she is more likely to support a redistribution policy that includes a higher tax rate in the expectation of higher net income. The higher tax rate enacted in this manner has a negative impact on private investment, stifling overall economic growth.

According to Ades and Verdier (1996), there are liquidity constraints that limit individual participation in the political process, assuming that political participation is endogenous and the cost of entry into politics is fixed. In this situation, society can be divided into two distinct classes: rich and poor. The wealthy can afford to pay the cost of entering politics. The poor are unable to participate in politics but must pay taxes. Given this scenario, social polarization and political instability are likely in the presence of high income inequality. This is likely to cause social unrest, which will have a negative impact on economic growth.

2.2. Economic growth and income inequality trends in Ethiopia

A number of studies present the trends of income inequalities and economic growth in Ethiopia so far. Girma and Shete (2018) present growth-inequality trends showing that changes in income inequality exhibit slightly similar trends to changes in real GDP growth (GDP). According to Cornia and Martorano (2019), between 1995 and 2011, Ethiopia experienced rapid average economic growth, while income inequality remained relatively stable at a low level. Odusola (2018) notes that income inequality in this country is still low at less than 0.399, with a slight downward trend between 1993 and 2011. On the other hand, despite average per capita economic growth of 4%, there was no significant change in Ethiopia's income distribution between 2000 and 2006 (Geda, Shimeles, and Weeks 2009). According to IDA, IFC, and MIGA (2016), Ethiopia has one of the most equal income distributions from 2005 to 2011. However, World Bank (2012) report indicates the poorest category of people have experienced worsening consumption over this period, posing a challenge to the country's shared prosperity.

As shown in the diagram below (Figure 2), between 1995 and 1999, Ethiopia's income of the top 20% and 10% fell. During the same time period, the income of the bottom 10%, second 20%, third 20%, and fourth 20%

increased. Following the demise of the Derg regime in 1991, the country's new regime embarked on major reforms during this period. Following this, particularly, after 1999, income owned by the top 10% and 20% increased, while income owned by the bottom 40% remained relatively stable. Income of the bottom 10%, bottom 20%, second 20%, and third 20%, on the other hand, fell continuously over the indicated time periods. These evidences show that the incomes of 60% of the population in this country were deteriorating. The Gini coefficient and real GDP showed slightly similar trends.

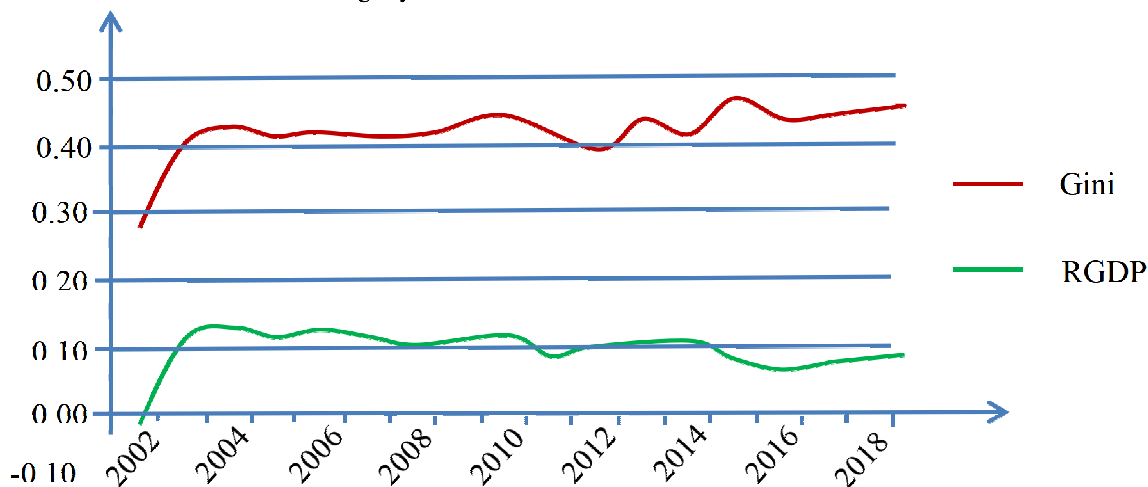

Figure 1: Trends of real GDP growth rate and Gini coefficient in Ethiopia
Source: Girma and Shete (2018)

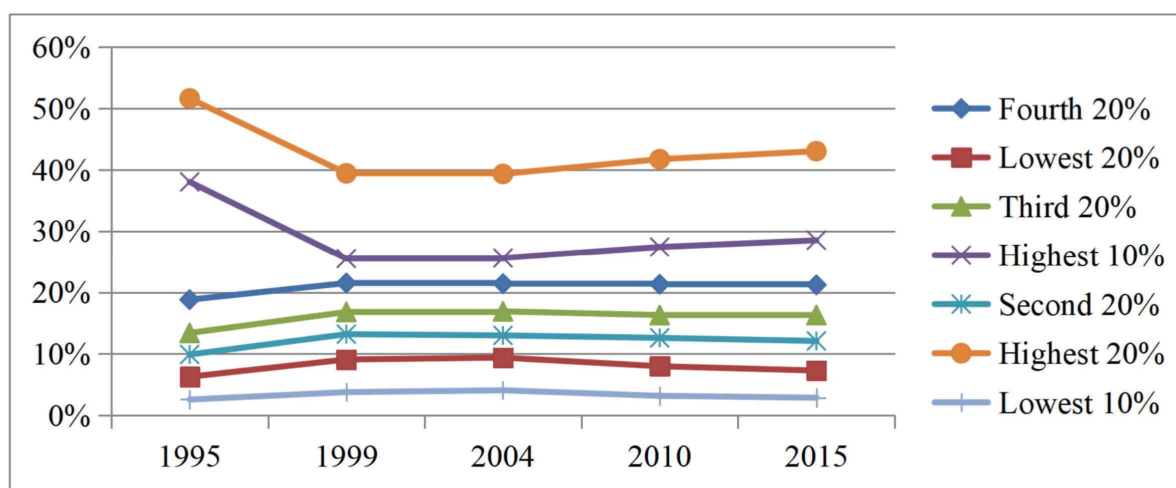

Figure 2: Income distribution trends in Ethiopia
Source: Own computation based on World Bank database

2.3. Empirical review

Several studies have been conducted on the relationship between economic growth and income inequality, with varying results. Applying a polynomial inverse lag (PIL) framework on the data obtained from China, Wan, Lu, and Chen (2006) demonstrate that income inequality has a negative effect on economic growth in the short, medium, and long run in post-reform China. Although the study acknowledges that low income inequality may have a negative impact on economic growth, it contends that the impact is mitigated through investment and education. However, in poor countries where agriculture is the primary source of income, it is critical to be cautious when interpreting such findings. In the same country, a study by Jin and Lee (2017) investigated the interrelationship between economic growth and urban–rural income inequality using a panel data covering 29 provinces of China in the period of 1988-2007. Although the impact was reportedly not robust, higher income inequality was reported to have significantly decelerated economic growth in this country. In the other hand, Majeed (2016) showed that income inequality has a significant positive effect on economic growth in Pakistan. The study however, argues that economic growth in such a scenario is not sustainable, calling for the importance of ensuring inclusive economic growth. In this study, annual data of 1975 to 2013 were utilized applying ARDL

model to examine the impact of income inequality on economic growth. According to Zhuang and Li (2016), income inequality may have a negative impact on economic growth due to its negative impact on trust, cooperative norms, and social cohesion, because these informal institutional mechanisms reduce transaction costs, encourage cooperation, and serve as a substitute when formal institutional arrangements are weak and ineffective.

Depending on cross country evidences, income inequality, according to Madsen, Islam, and Doucouliagos (2018), has a negative relationship with economic growth. Using data from a sample of 21 OECD member countries and the 2SLS approach, the study contends that income inequality has a negative effect on economic growth. If a country has high income inequality, the majority poor will exert pressure in favor of redistributing the accumulated wealth in the hands of a few wealthy individuals. Of course, the few wealthy must increase their investments in more productive and labor-intensive sectors in order to increase the poor's income. Similarly, a study by Vo et al. (2019) use a system GMM model on a dataset of 158 low, middle, and high income countries from 1960 to 2014 to investigate the causal and dynamic relationship between economic growth and income inequality. The study shows that income inequality had a negative short-run effect on economic growth in middle-income countries. The findings further indicate that bidirectional causality existed between economic growth and income inequality in both the entire sample and only the middle-income countries. The authors advocate for a policy regime centered on redistribution.

Another cross-country study by Gjerde (2019) seeks to comprehend the role of institutions in mitigating the negative effects of income inequality on economic growth. Three alternative institutional threshold indexes were constructed using principal component analysis in this study, with the threshold indices (institutional quality) being highest in developed countries compared to developing countries. The study found that income inequality had a negative effect on economic growth. Using the fixed effect panel data threshold model on data from 48 countries from 1977 to 2009, the study further shows that when institutional quality falls below the estimated threshold level, income inequality has a negative and significant effect on economic growth. When institutions develop beyond the threshold, they were able to mitigate the majority of the negative effects of income inequality and thus income inequality turns to have less negative effect on economic growth. The author further notes that a negative effect of the income inequality cannot be totally discarded but can only be minimized. Amar and Zghidi (2016) demonstrate that income inequality has a negative relationship with economic growth using panel data from 33 African countries. The study seeks to comprehend the relationship between African economic growth, income inequality, poverty, and human development based on a dataset spanning from 1986 to 2010. The study also emphasizes that improving the quality of economic growth is critical for realizing human development, which could improve equity.

According to ACBF (2017), there is a significant and positive relationship between income inequality and economic growth. Using a pooled data of Cameroon and South Africa, the study employs three models to ensure the robustness of the results: OLS, MLE, and 3SLS. In the growth equation, average income inequality significantly increased economic growth, while economic growth significantly increased income inequality in the inequality equation. Similarly, using cross-sectional time series data of 18 local municipalities in South Africa's Mpumalanga province from 1996 to 2014, Niyimbanira (2017) asserts that higher poverty combined with higher economic growth causes higher income inequality. The study notes that economic growth does not necessarily reduce income inequality. However, the results of the study were of short-term, and no long-term relationships between these indicators were discovered. For data analysis, fixed effect and pooled regression models were used.

A study by Getaye (2021) using annual data from 1980 to 2014 indicates that income inequality has a long-term negative effect on Ethiopian economic growth. The study aims at examining the relationship between income inequality and economic growth using a linear regression model. Noting that there is a stable long-run relationship between real GDP and income inequality, redistribution policy was argued to be critical in combating income inequality in this country. Girma and Shete (2018), aiming at understanding the relationship between income inequality and economic growth in Ethiopia, finds a positive relationship of income inequality and economic growth. A long-run stable relationship between income inequality and economic growth was demonstrated. The ARDL model was used to analyze annual data running from 2002 to 2017.

In general, many studies contend that income inequality is harmful to economic growth where most of them rely on cross-national evidences. However, from a macroeconomic standpoint, while pooled data provides more robust results, it is difficult to advance country-specific policy options depending on the results of such data. This is consistent with Odusola (2018)'s contention that there is no single panacea for addressing income inequality. If the goal is to achieve economic growth that accelerates poverty reduction, one should be able to address income inequality (ISSC, IDS, and UNESCO 2016, Gelaw 2010). In this line, to mitigate the negative impact of income inequality on economic growth, institutional quality indicators such as democracy, corruption, transparency, civil liberties, and property rights must be favorable. The findings of the Ethiopian growth-inequality nexus studies however, are not clear cut, and the arguments differ as a result. Variations in data

sources, analytical methods, and data types would all contribute to results that differed. Furthermore, growth-inequality studies in this country do not account for some critical macroeconomic variables in the models.

3. Conclusions and policy implications

In Ethiopia, relatively, economic growth benefited those individuals within the bracket of better income. Both in the short run and long run, income inequality is detrimental for economic growth. The Kuznets inequality-growth hypothesis of emerging economies does not appear to apply in this country. Inaction on income inequality would exacerbate the income disparity between rich and poor. For sustained economic growth therefore, the Ethiopian government and other development practitioners must focus on addressing income inequality. Given the country's current geopolitical and institutional environments, creating conducive socio-economic and institutional environment is the way forward to ensure that all individuals receive equal opportunities based on their efforts. Furthermore, it is critical to consider the most robust, systematic, and comprehensive additional research in this area.

References

ACBF. 2017. Which Inequalities Matter for Africa's Sustained Growth and Poverty Reduction? The African Capacity Building Foundation (ACBF), Harare, Zimbabwe.

Ades, A., and T. Verdier. 1996. The Rise and Fall of Elites: A Theory of Economic Development and Social Polarization in Rent-Seeking Societies. Centre for Economic Policy Research (CEPR). Discussion Paper No 1495.

Amar, Ben Mohamed, and Nahed Zghidi. 2016. "The Relationship between Inclusive Growth, Inequality and Poverty in Africa." *Theoretical and Applied Economics* 23 (1):117-126.

Barro, R. 2000. "Inequality and Growth in a Panel of Countries." *Journal of Economic Growth* 5:5-32.

Bénabou, R. 1996. "Inequality and Growth." *NBER Macroeconomics Annual* 11:11 - 74.

Cornia, Giovanni Andrea , and Bruno Martorano. 2019. Inequality and Growth in an Agricultural-Led Development Model:The Case of Ethiopia over 1995-2011.

Ehrhart, Christophe. 2009. The Effects of Inequality on Growth: A Survey of the Theoretical and Empirical Literature. edited by ECINEQ: Society for the Study of Economic Inequality.

Fosu, Augustin Kwasi. 2008. "Inequality and the Growth-Poverty Nexus: Specification Empirics Using Africa Data." *Applied Economics Letters* 15:563-566.

Geda, Alemayehu, Abebe Shimeles, and John Weeks. 2009. "Growth, Poverty and Inequality in Ethiopia." Fostering Development in an Era of Financial and Economic Crises, Addis Ababa, Ethiopia.

Gelaw, Fekadu 2010. "The Dynamic Relationship among Poverty, Inequality, and Growth in Rural Ethiopia: A Micro Evidence." *Journal of Development and Agricultural Economics* 2 (5):197-208,.

Getaye, Gashaw 2021. "Linkage between Economic Growth and Income Inequality in Ethiopia." *International Journal of Sustainability Management and Information Technologies* 7 (1):1-10. doi: 10.11648/j.ijsmit.20210701.11.

Girma, Tigist, and Maru Shete. 2018. "Relationship between Income Inequality and Economic Growth in Ethiopia." *JBAS* 10 (1):1-41.

Gjerde, Audun. 2019. The Inequality and Growth Nexus: The Role of Institutions in Mitigating the Negative Effects of Income Inequality. Master's Thesis, Lund University.

IDA, IFC, and MIGA. 2016. Priorities for Ending Extreme Poverty and Promoting Shared Prosperity: Systematic Country Diagnostic. Washington, DC: World Bank Group.

ISSC, IDS, and UNESCO. 2016. World Social Science Report 2016, Challenging Inequalities: Pathways to a Just World. UNESCO Publishing, Paris.

Jin, Furong, and Keun Lee. 2017. "Dynamics of the Growth–Inequality Nexus in China: Roles of Surplus Labor, Openness, Education, and Technical Change in Province-Panel Analysis." *Journal of Economic Policy Reform* 20 (1):1-25. doi: 10.1080/17487870.2016.1258311.

Kuznets, S. 1955. "Economic Growth and Income Inequality." *The American Economic Review* 45:1-28.

Madsen, J., M. Islam, and Hristos Doucouliagos. 2018. "Inequality, Financial Development and Economic Growth in the OECD, 1870 2011." *European Economic Review* 101:605-624.

Majeed, Muhammad Tariq. 2016. Economic Growth and Income Inequality Nexus: An Empirical Analysis for Pakistan. Munich Personal RePEc Archive.

Meltzer, A. H., and S. F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89 (5):914-927.

Nindi, Angelique G., and Nicholas M. Odhiambo. 2015. "Poverty and Economic Growth in Swaziland: An Empirical Investigation." *Managing Global Transitions* 13 (1):59-74.

Niyimbanira, Ferdinand. 2017. "Analysis of the Impact of Economic Growth on Income Inequality and Poverty in South Africa: The Case of Mpumalanga Province." *International Journal of Economics and Financial*

Issues 7 (4):254-261.
Odusola, Ayodele. 2018. Economic and Social Policies to Reduce Income Inequalities in Sub-Saharan Africa. New York: UNDP.
Vo, Duc Hong, Thang Cong Nguyen, Ngoc Phu Tran, and Anh The Vo. 2019. "What Factors Affect Income Inequality and Economic Growth in Middle-Income Countries?" *Risk and Financial Management* 12 (40):1-12.
Wan, Guanghua, Ming Lu, and Zhao Chen. 2006. The Inequality-Growth Nexus in the Short and Long Runs: Empirical Evidence from China. UNU-WIDER, Helsinki.
World Bank. 2012. World Development Report-Jobs. The World Bank.
Zhuang, J., and Shi Li. 2016.