Extended Abstract

Purpose

Understanding the factors that influence how income is distributed is crucial for designing effective economic and social policies. By identifying and analyzing these factors, policymakers can develop targeted interventions that aim to reduce inequality and improve the fairness of income distribution. The relationship between economic growth and income inequality, however, is complex and multifaceted. As such, it is important to use robust, data-driven methodologies to capture the nuances of these relationships across different economic contexts. This study seeks to explore how economic growth affects income distribution in the provinces of Iran, employing the Nonlinear Autoregressive Distributed Lag (NARDL) model for panel data analysis from 2006 to 2022. The findings suggest that both positive and negative shocks to GDP growth per capita have significant implications for income inequality. Additionally, factors such as inflation, unemployment, banking facilities, and government spending per capita are found to influence the Gini coefficient, a common measure of income inequality, in both the short and long term. Introduction Income distribution has long been a central concern in economic research and policymaking. The distribution of income within a society has far-reaching implications for social stability, poverty levels, and overall economic well-being. While economic growth is often seen as a vehicle for improving national prosperity, its effects on income inequality are more nuanced and can vary depending on the specific economic, institutional, and social conditions of a country. This complexity has led to a growing body of literature that explores how different dimensions of economic growth—such as GDP growth, inflation, unemployment, and government spending—affect income distribution. In particular, developing countries like Iran face unique challenges in managing income inequality, as their economies often exhibit higher levels of volatility and external shocks.

Methodology

 This study aims to shed light on how these factors interact with each other and contribute to the distribution of income in Iran's provinces. Using the NARDL model, which is well-suited to capturing both short-term and long-term dynamics in economic relationships, this research seeks to provide a comprehensive analysis of the effects of economic growth on income inequality in Iran. Theoretical Framework The relationship between economic growth and income inequality is grounded in several theoretical perspectives. According to the Kuznets curve hypothesis, economic growth initially leads to higher inequality as wealth accumulates in the hands of a few, but over time, as economies mature and structural changes occur, inequality begins to decrease. However, empirical evidence on this relationship is mixed, with some studies supporting the Kuznets curve and others suggesting that growth can exacerbate inequality if not accompanied by inclusive policies. A more contemporary perspective, the "trickle-down" theory, posits that the benefits of economic growth eventually reach all sectors of society, leading to a reduction in inequality. On the other hand, some scholars argue that economic growth can increase inequality if it is concentrated in certain sectors or regions, leaving marginalized groups behind. In this context, factors such as inflation, unemployment, government policies, and access to financial resources play a crucial role in shaping the distribution of income. Methodology This study employs the Nonlinear Autoregressive Distributed Lag (NARDL) model to analyze the relationship between economic growth and income inequality in Iran's provinces from 2006 to 2022. The NARDL model is particularly useful for capturing both the short-term and long-term dynamics of economic variables, allowing for the

analysis of asymmetric effects of positive and negative shocks on the Gini coefficient, which measures income inequality.

Finding

The variables considered in this study include GDP growth per capita, inflation rate, unemployment rate, banking facilities per capita, and government spending per capita. These factors are selected based on their theoretical relevance and empirical importance in influencing income distribution. The Gini coefficient is used as the dependent variable to represent the level of income inequality in each province. Results The results of the NARDL analysis reveal several important findings regarding the relationship between economic growth and income inequality in Iran's provinces. 1. GDP Growth and the Gini Coefficient The analysis shows that both positive and negative shocks to GDP growth per capita have a negative effect on the Gini coefficient, suggesting that economic growth, regardless of its direction, tends to reduce income inequality in the short term. Negative GDP growth shocks are found to have a stronger and more immediate impact on reducing inequality. This indicates that periods of economic downturns may lead to a more equal distribution of income, possibly due to reduced income opportunities for the wealthier segments of the population. 2. Inflation and Unemployment The long-term effects of inflation and unemployment on income inequality are significant and positive. Specifically, inflation and unemployment rates are found to increase income inequality, as both variables exacerbate the economic difficulties of lower-income groups. High inflation erodes the purchasing power of wages, disproportionately affecting poorer individuals, while unemployment reduces income opportunities, further deepening inequality. 3. Banking Facilities The availability of banking facilities per capita is found to have a significant positive impact on the Gini coefficient in the long run, meaning that increased access to financial resources may help reduce income inequality. This finding highlights the importance of financial inclusion in promoting more equitable income distribution, as access to banking services can facilitate investment, savings, and credit, particularly for the lower-income population. 4. Government Spending Government spending per capita has a negative and significant effect on the Gini coefficient, both in the short and long term.

Conclusion

This suggests that higher levels of government expenditure, particularly on social welfare programs, public services, and infrastructure, are associated with a reduction in income inequality. The findings underscore the importance of redistributive policies and government interventions in promoting income equality. Discussion The results of this study indicate that economic growth plays a complex role in shaping income distribution in Iran. While both positive and negative GDP growth shocks can reduce income inequality in the short term, factors such as inflation and unemployment tend to exacerbate inequality in the long run. The availability of banking services and government spending per capita emerge as key policy levers that can mitigate inequality, particularly through enhancing financial inclusion and redistributive spending. These findings suggest that policymakers should not only focus on achieving high rates of economic growth but also consider the distributional impacts of economic policies. In particular, targeted interventions aimed at reducing inflation and unemployment, along with increasing access to banking services and enhancing government spending on social programs, could help reduce income inequality and promote more inclusive economic development in Iran. Conclusion This study contributes to the understanding of how economic growth and various macroeconomic factors influence income distribution in Iran. By employing the NARDL model, the research highlights the

importance of both short-term and long-term dynamics in shaping income inequality. The findings suggest that economic growth alone is not sufficient to ensure equitable income distribution and that complementary policies—such as reducing inflation, addressing unemployment, promoting financial inclusion, and increasing government spending—are crucial for achieving more balanced income distribution. Future research could explore the role of other factors, such as education, health, and labor market policies, in influencing income inequality in Iran and other developing countries.