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The impact of monetary and fiscal policy tools on income: Bank interest rates and tax policies in Iran

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Article Info	Abstract
Original Article Main Object: Economics Scope: Iran Received: 29 December 2024 Revised: 04 January 2025 Accepted: 05 January 2025 Published online: 02 February 2025 **Keywords:** bank interest rate, income distribution, monetary and fiscal policy instruments, tax revenue.	The main objective of this paper is to examine the impact of monetary and fiscal policy tools on income distribution, with a particular focus on Iran. Three key variables are considered for this purpose: tax revenue as a fiscal policy indicator, bank deposit interest rates as a monetary policy indicator, and the Gini coefficient as an income distribution indicator. In this study, the Gini coefficient is analyzed as the dependent variable. To address the research questions and achieve the objectives, the Vector Autoregressive (VAR) model is used, and time-series data from the Central Bank of Iran (2001-2021) is employed. The results of the study show that the relationship between tax revenue and the Gini coefficient is not one-to-one. An increase in tax revenue has a positive and direct impact on the Gini coefficient, playing an important role in income redistribution. On the other hand, the bank deposit interest rate has little effect on income inequality, indicating that changes in interest rates, as a tool of monetary policy, do not significantly reduce or increase income inequality. The findings also suggest that fiscal policies are more influential than monetary policies in Iran. While this issue is linked to challenges such as central bank independence in many countries, in Iran, dependence on fluctuations in oil revenues has led policymakers to prefer expansionary fiscal policies. Ultimately, the weakness of monetary policy tools, particularly interest rate changes, in generating significant shifts in income distribution is evident, which requires serious review and reform in the country's monetary policy framework.

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Extended Abstract

Introduction

In recent decades, the Iranian economy has been under significant pressure due to numerous challenges, including economic fluctuations, international sanctions, and changing policies. One of the most important goals of economic policies is to achieve a fair distribution of income and reduce class gaps, which has always been the focus of policymakers and researchers. In the meantime, monetary and fiscal policies play a fundamental role as key tools for regulating the macroeconomics and influencing indicators such as the Gini coefficient.

Aims

This paper investigates the impact of monetary and fiscal policy tools on income distribution, with a particular focus on Iran.

Methods

The study examines three key variables to analyze this relationship: tax revenue as an indicator of fiscal policy, the interest rate on bank deposits as an indicator of monetary policy, and the Gini coefficient as a measure of income distribution. In this context, the Gini coefficient serves as the dependent variable, which reflects the extent of income inequality in a given economy. To address the research questions and achieve the study's objectives, the Vector Autoregressive (VAR) model is employed. This model is applied using time series data sourced from the Central Bank of Iran, spanning from 2001 to 2021, providing a comprehensive analysis over a period of two decades.

Findings

The findings of the study reveal that the relationship between tax revenue and the Gini coefficient is not linear or straightforward. Specifically, an increase in tax revenue has a direct and positive impact on the Gini coefficient, suggesting that higher tax revenues may contribute to a more unequal distribution of income rather than reducing it. This result challenges the commonly held belief that higher taxes would automatically lead to more equitable income distribution. The study implies that while tax revenue may be used for redistribution purposes, the manner in which these funds are utilized—such as government spending priorities or the efficiency of redistribution mechanisms—greatly affects the final outcome on income inequality. Therefore, the effectiveness of tax revenue in addressing inequality is questioned, as it might not always lead to a fairer distribution if not managed properly.

In contrast, the study found that the interest rate on bank deposits does not have a significant effect on income inequality in Iran. Changes in the interest rate, whether through monetary policy adjustments or shifts in the broader economic environment, appear to have no meaningful impact on reducing or increasing income inequality in the country. This finding points to a potential limitation in the effectiveness of interest rate adjustments as a tool for addressing income disparities. The lack of correlation between interest rates and income inequality suggests that other factors, such as labor market conditions, government policies, or external economic factors, may be more influential in shaping income distribution than changes in monetary policy.

Furthermore, the results highlight that fiscal policies are more influential than monetary policies in shaping income distribution in Iran. This observation is particularly important when considering the broader economic context. In many countries, the effectiveness of fiscal policies may be hindered by challenges such as the independence of the central bank or political factors that limit the government's ability to implement fiscal measures. However, in the case of Iran, the heavy reliance on fluctuations in oil revenues has led to a preference for expansionary fiscal policies. The government often resorts to increased spending and adjustments in tax revenues to stimulate economic activity, rather than relying on more conventional or more efficient monetary policy measures. As a result, fiscal policies—through mechanisms like changes in government spending, subsidies, and taxes—play a more prominent role in determining income distribution in Iran, compared to the relatively weaker impact of monetary policies.

One of the key contributions of this study is its identification of significant weaknesses in the current monetary policy framework in Iran, especially regarding the use of interest rate adjustments. The study shows that changes in the interest rate do not lead to substantial shifts in income distribution, indicating that the tools available to the central bank might not be adequate or properly aligned with the broader economic goals of reducing inequality. This weakness highlights the need for a more effective and refined monetary policy approach that is capable of influencing income distribution more directly. If monetary policy is to play a meaningful role in addressing inequality, it will require more innovative and targeted measures, possibly including structural reforms, greater central bank independence, and a more nuanced approach to interest rate management.

Moreover, the study suggests that there is an urgent need for a comprehensive review and reform of Iran’s monetary policy. Given that the current framework does not appear to lead to meaningful changes in income inequality, policymakers must reassess the efficacy of existing tools and consider new strategies for addressing this issue. This could involve greater coordination between fiscal and monetary policies, where fiscal policies are used to redistribute wealth and reduce inequality, while monetary policies create an environment conducive to sustainable and inclusive economic growth. A more balanced approach to both policies could result in a more equitable society by addressing both the symptoms and root causes of income inequality.

Conclusion

The research stresses the need for policymakers in Iran to prioritize fiscal policies over monetary ones when addressing income inequality. While fiscal policies have demonstrated greater effectiveness in influencing income distribution, the limitations of monetary policies, particularly in terms of interest rate adjustments, indicate that a more robust, adaptable, and flexible policy approach is needed. Policymakers should focus on enhancing the effectiveness of fiscal policy tools, ensuring that they are strategically used to foster more inclusive economic growth and reduce disparities in income distribution. Additionally, the study highlights the importance of finding alternative approaches to diversify the Iranian economy, which has been historically reliant on oil revenues. This overdependence on oil makes the economy vulnerable to external shocks, such as fluctuations in global oil prices, and can undermine the effectiveness of fiscal policies that are designed to reduce inequality. Therefore, the study calls for the exploration of alternative economic models that can help mitigate Iran's overreliance on oil, while simultaneously addressing both income inequality and the broader structural challenges facing the country. By fostering a more diversified and resilient economy, Iran can better achieve its long-term development goals and ensure more equitable outcomes for its population.

Conflict of interest

The authors declared no conflicts of interest.

Authors' contributions

All authors contributed to the original idea, study design.

Ethical considerations

The authors have completely considered ethical issues, including informed consent, plagiarism, data fabrication, misconduct, and/or falsification, double publication and/or redundancy, submission, etc. This article was not authored by artificial intelligence.

Data availability

The dataset generated and analyzed during the current study is available from the corresponding author on reasonable request.

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