



Applied Economics Studies, Iran (AESI)

P. ISSN:2322-2530 & E. ISSN: 2322-472X

Journal Homepage: <https://aes.basu.ac.ir/>

Scientific Journal of Department of Economics, Faculty of Economic and Social Sciences, Bu-Ali Sina University, Hamadan, Iran.

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Investigating the Effects of The Specific Fiscal Policies to Reduce Regional Inequality in Iran: Spatial Econometric Approach

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Type of Article: Research

<https://dx.doi.org/10.22084/AES.2021.24921.3348>

Received: 2021.09.15; Accepted: 2021.11.16

Pp: 171-194

Abstract

Following the intensification of inequality in regions and its harmful effects such as irregular migration and evacuation of some regions, the government and parliament during 1990 onwards various structures in the five-year development plan and budget laws such as revenue-expenditure system, regional balance credits, two percent of the revenue from the sale of crude oil, etc. is intended to reduce the above inequality and create a balance between the regions of the country. Despite the passage of about twenty years of designing and compiling these structures, the results and the effectiveness of these measures have not been examined. Therefore, while identifying regional inequalities and their factors, it is necessary to examine the effects of the implementation of fiscal policies implemented over the past twenty years on regional inequality. This study seeks to examine the factors affecting regional inequality and identify the impact of specific government budget policies designed to reduce regional inequalities and implemented since the beginning of the Third Development Plan on regional inequality. For this purpose, statistics related to 31 provinces during the years 1990 in the form of spatial econometric model has been used. The results of the Spatial Durbin Model (SDM) indicate that the fiscal policies implemented over the past twenty years to reduce regional inequality have not had a significant impact on regional inequality. Therefore, it cannot be hoped that the continuation of this structure in the future can reduce inequality between regions. Changing this variable in a province not only has no significant effect on the inequality of that province but also has no significant effect on the inequality of other provinces. Therefore, this policy, have not had a significant effect in recent years and it is necessary to reconsider this policy.

Keywords: Spatial Modeling, Regional Inequality, Budget Policies.

JEL Classification: C21, C23, D63, H72, R12.

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Citations: Almasi, M.; Delangizan, S. & Afrookhteh, M., (2022). "Investigating the Effects of The Specific Fiscal Policies to Reduce Regional Inequality in Iran: Spatial Econometric Approach". *Journal of Applied Economics Studies in Iran*, 11(42), 171-194 (doi: 10.22084/aes.2021.24921.3348).

Homepage of this Article: https://aes.basu.ac.ir/article_4193.html?lang=en

1. Introduction

Regional inequalities and imbalance between regions are an important issue in most developing countries due to political, economic and social consequences. Theories of economic growth in the past have mainly sought to explain and identify growth factors in countries, but the emergence and spread of inequalities in regions showed that convergence in the growth of regions does not happen by itself (Myrdal, 1957). These conditions caused space and place to be paid attention to in the theories of new economic growth.

In Iran, economic growth has been associated with severe regional inequality (Sheikh Beglu, 2013) and the implemented policies have not been able to balance the regions. Following the intensification of regional inequality and its harmful effects, such as indiscriminate migrations and the evacuation of some regions, the government and the parliament during the years 2019 onwards have introduced various structures in the five-year development program and budget laws, such as the income-expenditure system, regional balance credits, two percent of income From the sale of crude oil, article 180 of the fifth plan has been considered to reduce the mentioned inequality and create a balance between the regions of the country.

Despite the passage of about 20 years since the design and compilation of the aforementioned structures and the emphasis of the country's overarching documents, such as the constitution, the vision document, and the five-year development plan documents, past experience has shown that no effective measures have been taken to prevent the regional divide and unbalanced development. It is not clear whether the continuation of the mentioned trend will lead to a reduction of inequality or not?

Therefore, it is necessary to identify and propose appropriate policies and solutions while identifying regional inequalities and the factors that shape them. This research seeks to examine the effective factors of regional inequality in the country and the impact of the government's budget policies, the budget structures in the development program laws and budget laws, especially the effects of the government's budget structure, which is designed to reduce regional inequalities, on the growth of the regions. and identify growth inequality.

2. Methodology

The method of this research is the method of spatial econometrics. When we are faced with data that have a spatial component in the research, it is no longer appropriate to use conventional econometric methods. The difference between spatial econometrics and common econometrics is in the ability and application of econometric techniques in using sample data that have a spatial component. When sample data has a location component, two problems will occur: 1- Spatial dependence between observations; 2- Spatial heterogeneity in the relationships. Conventional econometrics ignores these two issues, that is, spatial dependence and spatial heterogeneity; Because if you pay attention to them, the assumptions used in conventional econometrics, i.e. "Gauss–Markov" assumption, which is the desirable characteristic of ordinary least squares estimators, will be violated.

First, we consider the general model to express spatial effects. Depending on whether spatial effects are propagated through the independent variable, dependent variable, or error factor in other regions, the general model is one of the modes of the Spatial Lag Model, Mixed Regression - Spatial Autoregressive Model (MR-SAR), the Spatial Error model, the spatial Lag-spatial Error model, the Spatial Durbin Model.

Through econometric tests, it is possible to distinguish between Spatial lag model, Durbin model and time Error model, so that the best model can be chosen to describe the process production data.

Based on the tests, the SDM model is the best spatial model for this research. In this study we also use from 31 provinces data in the period of 2000-2016 with using the dynamic panel data approach. advantages of using the panel data approach is that the number of observations is available to the researcher are not limit and degree of freedom is high.

3. Conclusion

The results from the Space Durbin Model (SDM) indicate that budget policies have been implemented for the past twenty years to reduce inequality in region, there is

no impact on inequality. so here is no hope for Successful of this structure to reduce inequality between regions. Changing this variable in a province not only does not affect the inequality of that province, but also the effect of your other meaning on other power plants. The reason for this policy and the main structure designed to reduce inequality in recent years is the effect factor that exists and needs to be revised in this policy. The results are the same for three groups: all provinces, border provinces and provinces with stronger economies. And shows the budget policy is not efficient.