The appropriate pattern of distribution of construction credits in the provinces of Iran
With the method of ideal planning and the goal of economic justice

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Abstract

The aim of the research is to determine the share of the construction budget of each province in the direction of achieving the goal of economic justice. For this purpose, the ideal planning technique, which is a multi-criteria decision model in the field of linear algebra, was used for 31 provinces of the country during the years 2014-2018. Economic justice based on the variables of Gini coefficient, unemployment rate, percentage of gross production, percentage of literate, household dimension, economic participation rate, relative population density, investment ratio, share of Tehran Stock Exchange transactions, roads, water, internet penetration coefficient, coefficient The penetration of social security insurance and the price index has been calculated.

The results of the model optimization show that there is a difference between the distribution of the real construction budget and the ideal construction budget. Gilan was the only province where there was no difference between the calculated ideal construction budget and the actual construction budget allocated there. The provinces of West Azarbaijan, Khorasan Razavi, Khuzestan, Sistan and Baluchistan, Fars, Kerman, Kermanshah, Lorestan, Mazandaran and Hormozgan have a positive deviation, which means that the allocation is more than the ideal amount, and the rest of the provinces have a negative deviation, which means that the allocation is less than the amount. It is ideal.

Based on the obtained results, it is suggested to use new and more efficient budgeting methods, especially the methods that measure, observe and track the targeted indicators of the system. It is also suggested that the share of Ardabil, Alborz, Ilam, Chaharmahal and Bakhtiari, North Khorasan, Zanjan, Semnan, Qazvin, Qom, Markazi, Hamedan and Yazd provinces in the allocation of construction credits and in order to increase economic justice in the country's provinces, which is deviating More than negative one have to be increased.

Key words: budgeting, ideal planning, construction budget, economic justice, provinces of the country

Introduction

Determining the role and functions of the government is a controversial issue for politicians and economic activists. This issue has had a different answer depending on the time and place. Merchants believed that the government should serve to develop exports and support domestic producers and intervene in the market. On the contrary, supporters of the free market and the invisible hand of the government did not consider it permissible.

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The great crisis of the 1930s led to the emergence of the welfare state. The emergence of the welfare state is a reaction to the traditional liberalism of the 19th century (Jafari Samimi et al., 2015).

One of the challenges in the budgeting process is prioritizing different and sometimes conflicting goals and objectives. In other words, budgeting is a process that includes different goals, which makes it impossible to achieve the optimal level of all the goals set in practice (Rajabi, Ahmad 2011). Therefore, the mathematical approach used in optimal budgeting should have the necessary flexibility to integrate a spectrum of heterogeneous and inconsistent goals, so that it is possible to achieve the desired level and satisfy all of these goals.

The ideal programming approach, which was first presented by Charnes and Cooper (1961), defines ideals in the form of limitations in terms of deviance variables and pursues several goals, unlike the non-ideal programming method. Since in real conditions it is not possible to achieve the maximum of all the set goals, the results of the aspirational programming model are a combination of the set goals and provide the level of satisfaction of all the set goals (Rajbi, 1991).

Economic justice has been measured in various experimental studies with different indicators of the combination of economic, social and cultural variables. In the current research, using these studies, especially the study of Abbas Shakri et al (2018), from fourteen indicators of Gini coefficient, unemployment rate, percentage of gross production, percentage of literate, household size, participation rate economic, relative population density, investment ratio, shares of Tehran Stock Exchange transactions, roads, water, internet penetration, social security insurance penetration and price index have been used to measure economic justice.

This study deals with the basics of using the ideal planning model within the country, to the issue of ideal planning of the construction budget from the point of view of economic justice.

Literature Review

The budget is a financial statement and a tool for managers to make decisions and be accountable. Budgeting is the process of preparing a budget for the future using estimates of income and expenses (Brusca and Labrador, 2016). According to what is stated in the annual budget laws, the general budget of the government is a budget in which the necessary financial resources and current and construction credits of executive bodies are determined for the implementation of the annual plan. The meaning of current credits is the credits that are foreseen in the five-year construction plan in general and in the general budget of the government separately to cover the current expenses of the government as well as the cost of maintaining the level of economic and social activities of the government. Construction credits are the credits that are provided in the five-year construction plan in general and in the general budget of the government separately for the implementation of construction projects (fixed construction credits) as well as the development of current expenses related to the economic and social programs of the government. (Non-fixed construction loans) is expected. Public budgeting is the most important governance tool of governments and a powerful tool for citizens to respond to them. Therefore, there is a political

relationship between budget and democratic values (government and people) (Hu et al., 2011; Rubin, 2016).

One of the goals of the country's economic development programs is to try to achieve economic justice through the proper distribution of resources and public facilities among the provinces. Despite all this, the difference between privileged and non-privileged provinces has existed for a long time and there have always been discussions about it by experts. But in the last decade, especially after the Islamic revolution, there has been a wide interest in identifying this difference and the solutions to eliminate it, because the persistence of major economic differences between regions for long periods of time has destructive effects. It affects the national economy. Perhaps one of the reasons for the difference in the standard of living of people in some provinces compared to other provinces is the adoption of inappropriate planning methods and the inappropriate allocation of funds for the acquisition of capital assets (Tabatabayi Nasab, 2006).

Due to the large share and impact of government investments in Iran's economy through the spending of funds for the acquisition of capital assets, the distribution of these resources among the provinces has always been one of the important issues in the country's economy (Qasmi et al., 2014).

Justice-oriented economic growth and development is always considered one of the important goals in a country, and achieving it requires growth and development in all areas related to that economy. One of the most important tools of the government for justice-oriented development in the territory of each country is the public budget, which is influenced by the results of the country's budgeting system. (Siderzaei et al., 2016).

Determining a method for optimal budget distribution is one of the constant goals of budget makers and economic decision makers. There are two points hidden in this ideal, the first is the concept of variable optimization, in which the target variable must be correctly defined and explained, and the second is the method to determine this road map. In this article, we mean the optimality of the budget, a model of the distribution of the construction budget of the provinces, which ultimately improves the economic justice situation in such a way that the indicators of the economic justice of the provinces after this method of budget distribution It is significantly better than before. Our method in this optimization and road map determination is ideal planning. Due to the importance of the economic justice index as the main goal of ideal planning in terms of research, in this section we have an overview of the theoretical foundations and researches that have been done in this regard.

Justice in the article by Rahmani Fazli and Arab Mazar (2015) focusing on 12 macro indicators including population ratio, death rate, unemployment rate, Gini coefficient, weighted index of educational facilities, literacy rate and economic participation rate, domestic production ratio of the province to the country And the ratio of the added value of agriculture, industry and service sectors to the whole country and the weighted index of health facilities have been calculated.

Masumzadeh et al., (2016) use the Gini coefficient to determine the justice in the distribution of incomes between provinces.

Prizadi and Mirzazadeh (2017) introduce economic justice as one of the most basic issues in which distributive justice is one of its parts. One of the approaches to Rawls's theory of justice as fairness is distributive justice, whose foundations are derived from the second principle of justice as fairness, i.e. the principle of difference. The difference principle of the theory of justice as fairness states that the redistribution of resources, wealth and power is necessary and necessary when extreme inequality at the level of society is not in favor of the most disadvantaged people in society. He introduced the indicators of economic justice factor, household cost ratio, economic participation rate, number of economic enterprises per 10,000 people, per capita production, number of industrial workshops per 10,000 people, income, household consumption price and unemployment rate.

The distinguishing feature of the proposed composite index is to consider all stages of life and combine the components of fair distribution of resources, opportunities and facilities based on merits, paying attention to the right of resources and production factors, paying attention to the right of future generations, sharing Factors of production are based on entitlements and the amount of participation, redistribution of income and wealth and attention to improving the welfare of the society (Shakri et al., 2017).

Most domestic researchers, including Seyed Noorani and Khandoozi (2015), Rajaei (2012), and Ayuzlu (2016), have used the indicators of legitimate ownership and equality, market price, and human development indicators for the economic justice index, and foreign researchers, including Esjarad and Nigler (2017 Cadre and Powderfek (2015), and Korinenko and Siriamkina (2015) have used indicators of poverty prevention, access to education, entering the labor market, social cohesion and non-discrimination, health, and intergenerational justice.

Using these studies, the following fourteen indicators have been used to measure economic justice. Gini coefficient, unemployment rate, percentage of gross production, percentage of literates, household size, economic participation rate, population (relative population density), investment ratio, share of Tehran Stock Exchange transactions, roads, water, internet penetration rate, coefficient Influence of social security insurance and price index.

In a 2021 study conducted by Zampelli and Yen using the data of general social surveys of the United States of America to examine individual attitudes towards the role of the government in redistributing income in the United States, they concluded that the attitudes of There is redistribution between different parties. There are fundamental divisions between Democrats and Republicans in ideological subgroups. This difference in attitude is also observed among social classes. Among moderates and conservatives, blacks support redistribution by the government more than whites. There is no black and white divide among liberals. Although conservative women support more government participation in redistribution than conservative men, no gender gap is seen for liberals or moderates. The sample results show that education has no detectable effect on

redistributive attitudes, but the subsample results show that a university degree strengthens ideological effects.

So, the intensification of attention to distribution affairs in the 1960s and 1970s saw a decrease in attention in the 1980s and 1990s. These years were the years of "Reagan-Thatcher-Kohl". The reaction against government intervention in the late 1980s and early 1990s saw the birth and expansion of the Washington Consensus. The fall of the Berlin Wall is interpreted as the complete victory of liberal politics and market (Kanbur, 2021).

The difference between tax systems is one of the most important reasons for the unfair distribution of income between provinces and countries (Sologon et al. 2021).

The problem of unequal distribution of income and financial concentration is raised in many countries. In a study conducted by Corolla and Mojun for 31 provinces of China, it shows that what is more important than the growth of real production is the way of income distribution. (kerolla and Mojon, 2021). This issue has caused more studies in Europe and the creation of specialized institutions in this field. In a study conducted by Moro and Pirouzi in 2018 for Italy, it was shown that credit and cooperative banks can improve the distribution of income in the provinces of this country.

Internal Research

Tavaklian et al. (2019), during the past three decades, the use of financial rules in the budgeting of countries has expanded so that in the 90s, only five countries used financial rules at the central government level, but today The number of countries with national rules has reached more than ninety countries. With the aim of choosing the appropriate rule for the budget balance in Iran's economy, the modeling approach of the general balance model of random dynamics has been used from three structural budget balance rules, the budget surplus rule and the counter-cyclical rule. The results show that following the occurrence of a productivity shock, the policy loss function is minimized by using the structural budget balance rule, and in the event of an oil (price and technology) shock, the countercyclical rule by considering the income gap. Taxes will be minimized. In this article, the researchers propose to reform the budgeting system in the country.

Dindar Rostami et al. (2019), oil price impulse and current government spending are two variables that increase discretionary decisions of governments and consequently the growth of the structural budget deficit and decrease the influence of automatic stabilization in Iran's economy, and impulses Such as the growth of GDP per capita, inflation, increase in construction expenditures and improvement of trade relations and, as a result, the exchange relation have reduced the structural deficit and increased the influence of automatic stabilization in Iran.

Tedin et al. (2019), in developing countries including Iran, efforts are being made to compensate for the lack of private sector investment and other problems caused by adopting a budget deficit policy. The adoption of this policy is supported by Keynes and his supporters. They believe that the expansionary effects of the budget deficit will lead the macro economy towards balance. But if the budget deficit policy is adopted without

considering the total supply, it will cause more inflation and trade deficit without eliminating the recession. In the research of Tadin et al., in order to investigate the optimal path of the budget deficit and trade deficit in Iran's economy, based on the design of the optimal paths of economic variables during the period of 1357-1396, optimal control theory has been used. Therefore, taking into account the dynamic behavior of economic variables in the country, the simultaneity device in the form of the equilibrium model of the three markets of goods and services, money and currency according to the economic theories and according to the econometric principles is fitted through the three-stage least squares method. Do After performing co-integration tests and determining the coefficient of Thiel's inequality for each of the behavioral equations, the results of this fitting were used for policy making in the theory of optimal control. The results obtained from the present research show that Iran's economy needs to control government spending in order to reach the desired level of target variables, and contractionary fiscal policies will have better results in controlling double deficits.

Azar et al., (2019) introduced a concept called "distortion of the country's public budget and its factors". Distortion of the country's general budget to any objective and non-objective deviations, violation of the macro-plans of a society, creation of unusual behaviors that cause the operational balance, capital assets balance and financial assets balance to not reach zero, and as a result, instability. It is said that the economy and non-realization of justice in the society. In this regard, with the method of document analysis, the concept of budget distortion has been explained, and then, using the theme analysis method, the factors that cause the distortion of the country's public budget have been extracted. The laws, structure, resources and process of the country's public budget are the main factors of distortion of the country's public budget, each of which is divided into sub-criteria. With the help of the hierarchical process and the network analysis process, prioritization has been done by performing pairwise comparisons of all factors and their sub-criteria and the dependence of internal and external clusters of the main factors. The results indicate that the laws and regulations of the country's public budget are one of the most important factors that cause the distortion of the country's public budget.

Ghafari and Shujaei (2018), the results show that in the three-year average of budget distribution relative to needs and capacities, Central, Alborz and East Azerbaijan provinces and seven other provinces are in the worst situation and budget distribution is It is their loss. The budget distribution between Golestan, Khorasan, Razavi and Kerman provinces and seven other provinces is according to their needs and capacities.

Seyed Rezaei et al. (2016) in an article entitled "Considerations of the budgeting system in the direction of realizing regional justice" to "Identification of the notable factors of Iran's budgeting system in the direction of realizing regional justice through the public budget" they pay The research method was the foundational data theory and sampling was done by theoretical and snowball method. An open and semi-structured interview with the experts of the "National Management and

Planning Organization" who are in charge of drafting the budget bill, as well as analysts of the budget document, is the main tool for data collection. By analyzing the data through open, central and selective coding, the main variable of the research was identified as "considerable factors in the budgeting system". The main variable consists of six subclasses and includes factors that experts believe should be considered in order to achieve regional justice, and each one has a coefficient of importance during indexing for budget writing and after that, approval and Allocate the budget to themselves.

Rahmani Fazli and Arab Mazar (2015) in a research titled "Aspirational planning model for the optimal provincial allocation of budget resources in line with the realization of the country's major macroeconomic and social goals" on the issue of optimal budget allocation according to rate reduction indicators. Unemployment, reducing income inequality and increasing production and employment and the level of social capital. The designed model determines the optimal level of allocation of budget resources to the provinces of the country so that it is in line with the realization of goals. Experimental results for the provinces of the country based on ten major indicators including the population share of the province, the share of gross domestic product of the province in the country, unemployment rate of the province, literacy rate, economic participation rate, internet penetration rate, Gini coefficient, added value ratio of the sector. The major sectors of agriculture, services and industry and mining show that firstly, there is a relative convergence in the optimal distribution of the

provincial share of the country's public budget credits and secondly, the realization of the goals set in the more developed provinces requires the allocation of higher levels of Financial and budgetary resources are less developed than the provinces.

Foreign Research

The ideal programming model has been used by many researchers in the field of budgeting. For example, Kovak and Dimini (1987) have designed and used a model based on ideal programming in the direction of allocating the operating budget of university units in the United States. In another study, Kwak and Lee (1997) used the ideal planning model in order to optimally allocate human resources in the health sector. (Rahmani Fazli et al., 2015).

In an article titled "Economy and Equality", Barton (2020) discusses the issue that until the 19th century, political theory supported property rights but did not emphasize distribution. This does not mean that the governments do not have economic concerns and do not consider themselves obliged to promote the economic interests of their societies, but the way to respond to these concerns and obligations, instead of being a matter of rights, is a political issue in It is considered.

Simon et al. (2019) deal with the issue of government budget allocation in an article titled "A model of optimal allocation of government expenses". Government spending can be used for various economic and social purposes, including public education, consumption of public goods and services, and protection. In this article, the optimal allocation of public expenses is studied based

on the pattern of overlapping generations to determine the optimal amounts of income tax, transfer payments, educational expenses and public consumption. The presented model shows that there is an intergenerational contract between public consumption and social welfare.

Ankhbayar et al. (2019) define the optimal budget structure in the Mongolian economy in an article entitled "The application of the Markowitz model in the budget of the Mongolian government". They assume that the government's income includes seven main taxes and non-tax income. The optimization problem has been solved by using the conditional slope method using the Matlab software. The calculation results are presented based on the economic data of Mongolia, and based on this, the optimal allocation of resources and costs are determined.

Research method

Optimistic programming is a multi-criteria decision making model in the field of linear algebra. This pattern includes several goals at the same time and is adjusted based on minimizing the deviation from the goals. The main art of ideal planning is considering limitations and ideals along with decision variables and also eliminating and dimming weak human reasoning during planning and decision making. This art has a special effect when we seek to optimize several factors at the same time.

According to the topics discussed, theoretical foundations and experimental studies and the problem that was proposed, in this part, the method of applying ideal planning in budget allocation is explained.

The budget resources are made up of tax revenues, revenues from government ownership, revenues from the sale of goods and services, revenues from crimes and damages, and miscellaneous revenues. These budget resources are used for expenses including compensation for employees' services, use of goods and services, costs of property and assets, subsidies, compensations, social welfare and other expenses and credits for the acquisition of capital assets.

The budget share of "i" in province is defined as follows:

$$(1) \quad i = 1, 2, 3 \dots, N; \, x_i \geq 0$$

Here, N represents the number of provinces. The total share of the budget of the provinces is equal to one, so:

$$(2) \quad \sum x_i = 1$$

Provincial construction budgeting can be done based on major economic, social, construction, educational and cultural indicators of each province. The value of the kth index for the ith province is defined as y_i^k. Budgeting is done in order to reach the target level of provincial indicators. The goals of the model, which are generally displayed with the symbol y_i^k, represent the target value of each index in each province. The goal is to assign x_i as the decision variables of the problem in the direction of minimizing the distance of the provincial indices (y_i^k) from the ideal values (y_i^k). Thus, if the number of indices is K, then the number of ideals of the problem will be equal to N K. Which of the main provincial indicators have a certain weight or degree of importance from the point of view of budgeting.

In the designed model, the number of ideals is equal to the product of the number of macro-

economic and social variables in the number of provinces of the country. In other words, the goal of the issue is to achieve an ideal level of key economic and social variables in each province. In this order, the number of provinces of the country is defined for each objective variable. In this study, the ideals are defined on the macro variables of the provinces. These variables include Gini coefficient, unemployment rate, percentage of gross production, percentage of literates, household size, economic participation rate, population (relative population density, investment ratio, share of Tehran Stock Exchange transactions, amount of roads, water, penetration rate) Internet is the penetration coefficient of social security insurance and the price index. The common goal of all provinces is to achieve a ten percent change in the variables for each fourteen variables. For example, a ten percent decrease in the unemployment rate of each province or a ten percent decrease in The Gini coefficient of each province is the ideals of the problem. Two deviance variables are also defined for each ideal. The variable (d_{ik}^-) indicates positive deviation and the variable (d_{ik}^+) indicates negative deviation. In order to have the possibility of provincial comparison, it is assumed that the ideals in different provinces have similar weight or degree of importance. The weight of the ideals was determined from the ranking analysis and based on the opinion of the experts. Also, the weight of positive deviations (w_k^-) and negative (w_k^+) are also assumed to be the same. In the rank order analysis for each province, the comparison matrix a pair of ideals is designed. This is a square matrix and its dimension is equal to the

number of ideals. In this study, this matrix has fourteen dimensions. The rows of the matrix indicate the opposite priority of both ideals in relation to each other. In this order, the elements on the main diameter of the matrix of pairwise comparisons are all one, and the opposite elements are two and two inverses of each other. There are various methods for evaluating the weights of indicators, the most popular of which are the eigenvector method and the least squares method (Mommani, Mehdi, and Mojtabi Hatami, 2009). In this study, the method of eigenvectors has been used. Considering the equal importance of fourteen ideals for thirty-one provinces, a vector of weights of ideals is obtained. In this way, there will be two groups of variables in the model. Deviation variables from ideals and target variables (percentage of budget allocated to each province). The designed model aims to determine the optimal value of the province's budget contribution in the direction of minimizing the distance from the specified ideals.

The weight of the provincial indices is obtained by weighting method 1 in the rank chain analysis and by using the provincial information of the indices. The results of these indicators for each of the provinces of the country depend on the priorities of that province and therefore the number is different. To calculate the weights of the provincial indices, the approach of the matrix of pairwise comparisons and the method of eigenvectors are used. In this direction, for each of the provinces corresponding to the variables, the matrix of pairwise comparisons is determined, and then, using the method of special vectors,

the vector of the weights of the indices is calculated to separate the provinces.

After completing the definitions related to the variables, ideals, coefficients and parameters and problem constraints, the ideal programming model is presented. Since it is not possible to achieve all goals at the same time, therefore, a combined objective function must be defined. In this regard, the following integrated objective function is considered:

$$\text{(3) } \min I = \sum_{k=1}^{N.K} \sum_{i=1} w_k^- d_{ik}^- + w_k^+ d_{ik}^+$$

Since the allocation of the budget must be in the direction of achieving the goal, therefore, the model designed for the number of goals of the problem faces the following limitations:

$$\text{(4) } \sum^{K}_{k=1} i k x_i - (d_{-ik} + d_{+ik}) = y_{ik}$$

$$\text{Also: } k=1$$

$$\text{(5) } ..., K, 2, 1 ..., N; k = 1, 2, 1 \; i = 0 \; d_{-ik},$$
$$d_{+ik} \geq$$

And:

$$\text{(6) (1) } i = 1, 2, 3 ..., N; x_i \geq 0$$

The restrictions presented in relation (4) are the key limitations of the model and they state that the budget allocated to each province should be in the direction of achieving the goals. The relationship (5) states that all positive and negative deviations have been taken into account in absolute terms and therefore they are all positive. Equation (6) represents the total share of the provinces' budget, which is equal to one.

Research findings

The aim of the research is to determine the contribution of each province's budget in the direction of achieving goals. The ideals of the question are based on the variables that are being studied. These variables were Gini coefficient, unemployment rate, percentage of gross production, percentage of literates, household size, economic participation rate, population (relative population density), investment ratio, share of Tehran Stock Exchange transactions, amount of roads, water Internet penetration rate, social security insurance penetration rate and price index. The information related to the years 1394 to 1398 was taken from the Iranian Statistical Center.

Information related to fourteen variables has been processed for thirty-one provinces of the country. Therefore, there will be 434 ideals and 868 deviations from the ideal (including positive and negative deviations from the ideal) in the model. Also, there are 31 decision variables that represent the contribution of the country's provinces to the country's construction budget. The completed model was analyzed in Lingo software, version eight. The results of solving the model and determining the contribution vector of the country's provinces based on the ideal programming model, as well as the actual contribution of each province based on the budget law of 2019, are given in table (1).

Table (1). The results of the ideal programming model solution

State	share of the provincial budget		
	Deviation	Ideal	Actual
East Azerbaijan	-0.58	3.45	2.87
West Azerbaijan	0.42	2.97	3.39
Ardabil	-1.00	3.12 2	2.12
Isfahan	-0.17	3.84	3.67
Alborz	-1.86	3.51	1.65
Ilam	-1.30	3.26	1.96
Bushehr	-0.55	3.35	2.80
Tehran	-0.79	4.47	3.68
Chaharr Mahal and Bakhtiari	- 1.15	2.87	1.72
South Khorasan	-0.60	2.83	2.23
Khorasan Razavi	1.08	3.56	4.64
North Khorasan	-1.03	3.23	2.20
Khuzestan	2.97	3.08	05.6
Zanjan	-1.28	2.88	1.60
Semnan	-1.95	3.39	1.44
Sistan and Baluchistan	2.55	2.57	5.12
Fars	1.63	3.68	5.31
Qazvin	-1.71	3.29	1.58
Qom	-1.59	3.02	1.43
Kurdistan	-0.48	3.05	2.57
Kerman	1.03	3.38	4.41
Kermanshah	10.62	2.98	13.60
Kahkiloyeh and Boyer Ahmed	-0.72	3.13	2.41
Golestan	-0.85	3.32	2.47
Gilan	00.03	12.3	12.3
Lorestan	0.15	3.14	3.29
Mazandaran	0.91	3.16	07.04
markazi	-1.36	3.12	1.76
Hormozgan	0.43	2.82	3.25
Hamedan	-1.30	3.22	1.92
Yazd	-1.52	3.19	1.67

Source: research findings

Conclusion and suggestions

The results indicate that there is a difference between the actual budget distribution and the ideal budget. The only case where there was no difference between the calculated ideal construction budget and the actual construction budget allocated was related to Gilan province. It should be mentioned that it is possible to allocate the construction budget with the goals determined on the basis of the defined indicators with different ratios of the budget for different regions and provinces. The provinces of West Azarbaijan, Razavi Khorasan, Khuzestan, Sistan and Baluchistan, Fars, Kerman, Kermanshah, Lorestan, Mazandaran and Hormozgan have a positive deviation, which means allocation

more than the ideal amount, and the rest of the provinces have a negative deviation, which means allocation it is less than the ideal value.

It is suggested to use new and more efficient budgeting methods, especially the methods that measure, observe and track the targeted indicators of the system. It is also suggested that the share of Ardabil, Alborz, Ilam, Chaharmahal and Bakhtiari, North Khorasan, Zanjan, Semnan, Qazvin, Qom, Markazi, Hamedan and Yazd, which have a deviation greater than negative one, should be increased.

References

- Ankh Bayar, Ch., B. Lkhagvajav, N. Tungalag, R. Enkhbat (2019) Application of Markowitz Model to Mongolian Government Budget, Business School, National University of Mongolia, Ulaanbaatar, Mongolia, iBusiness Vol.11 No.3.
- Azar, A. Sadeghi Shabhani, M. Rezabiki, R. M. (2019) Mapping the model of factors affecting the distortions of the country's public budget, Scientific Journal (Quarterly) Researches and Economic Policies No. 94, Year 28, Pages 426-397.
- Dindar Rostami, M. Shamsullah Sh. Bakhsh M. Afshari, Z. (2019) Investigating factors affecting cyclical and structural budget deficits in Iran, Scientific Quarterly of Applied Economic Studies of Iran, ninth year, number, 33, pages 225-199.
- Ghafari Fard, M. & Shojaei M.R. (2018) Investigating the performance of budget distribution between different provinces of Iran based on their capacity and needs during the first and last years of the 11th and 12th governments, Financial and Economic Policy Quarterly, 7th year, number 28.
- Brusca, I. & Labrador, M. (2016). Budgeting in the Public Sector. A. Farazmand (ed.), Global Encyclopedia of Public Administration, Public Policy, and Governance, DOI 10.1007.978-3-319-31816-5_2361-1.
- Jafari Samimi, A. Zarin Iqbal, H. Zibai, M. R. Derakhshani Darabi, K. (2016) Comparative study of public sector economy in the economic model of the Islamic Republic of Iran Constitution and welfare states, Economic Research Quarterly (Sustainable Growth and Development) Year 16, number one, pages 41-75.
- Kanbur, R. (2021) Sustainable Development Goals and the Study of Economic Inequality, the Journal of Economic Inequality, 19:3–11.
- Kerola, E. & Mojon, B. (2021) What 31 provinces reveal about growth in China, Monetary and Economic Department,NO 925, 3- 31.
- Masumzadeh, S. Shirafken, M. and Mohammadinejad, M. (2016) Examining the Convergence of Income Distribution in Iran's Provinces, Economic Modeling Quarterly, Year 12, Number 1, Number 41, Spring 2017, Pages 178-161.
- Rubin, I.S. (2016). The Politics of Public Budgeting: Getting and Spending, Borrowing and Balancing, sage Publication.
- Rahmani Fazli, C. Arab-Mazar, A. (2015). Optimal distribution of provincial budget resources based on an optimal control model. Quarterly Journal of Economic Researches and Policies. Year 24. Number 79. pp: 7-28.
- Rajabi, A. (2013) an effective approach in budgeting and optimal allocation of financial resources-case study: budget allocation of the Ministry of Health and Treatment to the provinces of the country. Health Accounting Quarterly. 1 (2 and 3). pp. 1-16.
- Seyed Rezaei, M. Y. Pourezat, A.A.and Saadabadi, A.A. (2016) Considerations of the budgeting system in order to achieve regional justice, Public Management Perspective, No. 29, 73-91.
- Shakri, A. Momeni, F. Alizadeh, A. Kh. And Mousavi, S.H.M. (2017) An Introduction to the Composite Index of Economic Justice

with an Islamic Approach, Scientific-Research Quarterly of Islamic Economy, Year 19, Number 74, Pages 33-5.

– Shakri, A. Momeni, F. Alizadeh, A. Kh. And Mousavi, S.H.M. (2018) Measuring the composite index of economic justice with an Islamic approach in Iran (2016-2018), two scientific quarterly journals of Iran's economic essays, year 16, number 31, pages 9_ 40.

– Tavaklian, H. Mohammadi,T. and Siami Iraqi, E. (2019) Determining the financial rule of the budget balance for Iran's economy using the Dynamic Stochastic General Equilibrium (DSGE) approach, Economic Research and Policy Quarterly, number 95, pages 10-1.

– Tedin, F. Ranjbar,H. Rajabi, M. Samati, M. (2019) Simultaneous control of budget deficit and trade deficit in Iran's economy with the aim of economic growth, Scientific Quarterly, Economic Growth and Development Research, Year 11, Number 41. (83-96).

– Zampelli, E. M & Yen, S.T. (2021) Individual Attitudes toward Government's Role in Redistributing Income in the United States: Analysis by Ideological Subgroups, The Journal of Economic Inequality volume 19, pages 115–137.