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Estimation of Resource Allocation Inefficiency in the Iranian Industrial Sector

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EXTENDED ABSTRACT

INTRODUCTION

Efficiency is a fundamental concept in economics and is applied in various economic areas. In microeconomics, efficiency has a particular role in consumption and production. The focus of this article is on production efficiency, which itself consists of many kinds. In the economics literature, the important question is that how much the current economic situation is away from the efficient situation and, in other words, what the extent of inefficiency is. Statistical facts and evidence clearly show that the Islamic Republic of Iran's economy suffers from a relatively high level of inefficiency in its various sectors, which can be induced from different factors including big size of the public sector, governmental controls in various economic sectors, deviation of domestic relative prices from the world relative prices, untargeted protective system, old technologies, widespread corruption, and economic rents and lack of competitiveness of domestic outputs. Although economic justice should not be sacrificed for increasing efficiency, it seems that the efficiency itself has been sacrificed during the last four decades of IR Iran's economic life. The economy has not been on the right path to deliver sustainable economic growth. Too much emphasis on the issue of economic justice in the last two decades and ignoring the issue of efficiency have been misleading. It seems that the investigation of efficiency in various economic sectors and identification of its determinants are essential for future financial planning. Various kinds of efficiency cannot be dealt with in one article. For this reason, the purpose of this paper is to estimate resource allocation inefficiency in the Iranian industrial sector.

METHODOLOGY

For this purpose, we calculate in the first stage the deviations in each sub-sector of the industry. Then in the second stage, we estimate inefficiencies in 23 industries with two-digit ISIC codes over 1374-1393.

FINDINGS

The empirical results derived from the stochastic frontier function show that the industry's efficiency in the production sector is about 60 percent. Also, due to increasing returns to scale in the Iranian industry, marginal and average production costs are decreasing, and production does not occur in economic areas. Therefore, firms operating in Iranian industries are not profit maximizers and have not reached an efficient production scale. Our estimated stochastic frontier function also shows that the labor force is an essential part of efficiency deviation in our calculations. Therefore, it is necessary to promote labor quality through learning-by-doing as well as technical and professional education to increase their share and create incentives.

CONCLUSION

This aim can be reached by linking labor force compensation and wages to its productivity. Also, it is necessary to investigate and evaluate the influential factors causing inefficiency in various economic sectors to design economic policies to eliminate or at least reduce these factors.

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