

Testing of the Existence of Baumol Cost Disease in Public Education Expenditures in Iran

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Abstract

This paper analyzes the incentives to increase the cost of public education, including the effect of the "cost sickness" scheme. According to the theory, the salary paid to teachers can explain the significant increase in tuition costs. Baumol divides the economy into two leading non-progressive parts. The leading sector includes the part of economic activities in which technology is crystallized as innovations and the accumulation of capital in it by activating economies of scale provides the basis for increasing per capita production. In this sector, the increase in wages is proportional to the increase in productivity. On the other hand, there are activities in which the human role is prominent and productivity growth occurs only occasionally and accidentally. In terms of education, they are located in the non-leading sector. In non-leading industries, the wage rate increases in proportion to the higher wage rate in the leading sector to retain workers despite the low productivity growth similar to the effect (Samuelson-Balasa) and increases the unit cost of services in the non-leading sector. This increase in cost translates into an additional increase in the cost of education, and because the demand for education is unbearable, it continues to increase the general cost of education. The present study reviews the article on unbalanced macroeconomic growth and crisis in urban areas of Bamol and examines the increase in costs in the Iranian education sector using the Baumol model and ARDL method during the period (1360-1397). Long-term and short-term results show that not only is there no sick disease, but also an increase in wages to productivity reduces production costs in that sector and can lead to prosperity in this sector.

Keyword: Baumol cost Disease, Labor cost, Service sector, Public education, Productivity Growth.

JEL Classification: E24, D24, J31, A20, I10.

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1. Introduction

The Baumol disease explains the cost of increasing spending on education without a corresponding increase in productivity. According to this theory, productivity in this sector is constant while its costs increase. This is especially effective in demand, especially in markets with more elasticity. According to Baumol, productivity growth does not occur in areas where the human presence is prominent. Wonder (1977) using a dynamic model of receiving teachers' salaries is one of the important factors in providing and retaining teachers. According to the findings of Peter Dalton (2020), the main determinant of teachers' supply is relative and suggested wages. Darling Hammond (2000) in a study showed that teachers' salaries should be increased in order to hire and support skilled teachers. In this study, we intend to determine the factors that increase costs in the public education sector using an equation Understand regression from Baskha et al. (2014) article and available data from Iran. Does the increase in spending in the education sector reflect the increase in teachers' productivity?

1-1. Research Hypotheses

The main hypothesis

The difference between the wage index and labor productivity has a significant effect on the share of education costs in GDP.

Sub-hypotheses

1. In the education sector, wages have increased by more than the productivity of the labor force, and this is evidence of the existence of a disease with a dull effect.
2. Macroeconomic variables such as inflation and per capita economic growth have significant effects on education costs.

2. Research model and method

Territory place of this research is limited to Iran and its purpose is to investigate the factors affecting the increase of educational costs in the public sector and to test the existence of low cost diseases in this sector. In terms of time, this study intends to investigate the existence of low-cost disease and other factors affecting the increase

in general education costs during the period 1981-2008. The data of this research is based on the base year of 2004.

$$\lneducate = \alpha_0 + \alpha_1 * \lnbaumol + \alpha_2 * \lnGDPper + \alpha_3 * \lninflation + DUM + u_t$$

This model is derived from research on Aging and Cost Disease Baumol,s in Iranian health Sector. Quantitative data and information have been extracted from the website of the Central Bank and the National Statistics Center of Iran.

The variables remain at the level i (0) or the first-order difference i (1) and therefore we use the ARDL method to investigate the existence of short-term and long-term relationship in the model. The assumption of no long-term relationship between variables was rejected and therefore there is a long-term relationship. According to the results, the long-term coefficient of the variable with the coefficient is quite significant and the sign of the coefficient is different from the previous researches, which means that not only there is no variable disease, but also increasing wages to productivity reduces production costs in that sector. Has been and can be the background of prosperity in this sector. The variable coefficient of the imposed war is negative and significant and indicates that the existence of war causes the share of education expenditures in GDP to be allocated to war-related cases. To be given. The estimated error correction factor is -0.96, which means that in each period, about 96% of the dependent variable imbalances are eliminated and the model returns to the long-run equilibrium. That the proposed CUSUM and CUSUMQ diagrams are within the confidence interval, the null hypothesis that the coefficients are stable is accepted.

3. Conclusion

Long-term and short-term results show that there is no Baumol disease in the Iranian education sector. The results of the study showed that the variable of Baumol is significant but its coefficient was negative. More attention can be paid to this section. This article calls for reforms in teachers' salaries and recommends an increase in salaries in the public education sector. Another recommendation of this research is price control and should be one of the strategies of any government.

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