

Studying »Patronized Goods« in Cultural Sector: Symptoms and Consequences of Baumol's Cost Diseases

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The report is dedicated to research artistic products being among the traditional «patronized goods», which are created in the sphere of culture and arts. The absence of standard mechanisms of wages' growth set in motion of the inability of productivity growth in this field, or behind the performance of the economy as a whole [Baumol, Bowen, 1966]. The consequence of this pattern, confirmed by empirical studies [Nordhaus, 2008; Fernandez, Palazuelo, 2012; Rubinsteyn, 2012; Rubinshteyn, 2013a, 2013b], is the loss ratio of organizations of culture (Baumol's «cost disease»). On the strength of this presumption main aim of the research is to identify the presence of the income's deficit of cultural organizations and factors affecting it. This analysis is relevant for public policy to support culture and also allows us to make an assumption about the effectiveness of the culture organizations management.

In this paper, we are using three econometrical models: pooled model, fixed effect model and quantile regression model. The choice of these methods is due to the structure of statistical data, namely the values of the Baumol's coefficients for theatres, concert agencies and museums in 80 regions of the Russian Federation for the period 2001-2014.

1. The pooled model.

$$B = \omega_0 + \omega_1 B_1 + \omega_2 B_2 + \omega_3 B_3 + \xi$$

B - value of the Baumol general index characterizing the consequences of the «cost disease»; B_1, B_2, B_3 - special Baumol indices for labor productivity, wages and prices; ω_1, ω_3 - constant coefficients of regression for all the panel data; ω_0, ω_2 - variable coefficients of regression on theaters, the concert organizations and performing arts in the whole; ξ - error of regression.

2. The fixed effect model. By using models with fixed effects, we can take into account and perform individual regional differences that impossible to do by using standard regression models:

$$B_{it}^k = \alpha_i^k + \beta_1^k B_{1it}^k + \beta_2^k B_{2it}^k + \beta_3^k B_{3it}^k + \varepsilon_{it}^k$$

B_{it}^k – the size of the deficit of income for the k -th type of the culture in i -th region, the value of α_i^k expresses the individual effect of the object i , which doesn't depend on time t , the regressor B_{it}^k – the value of Baumol's indexes B_1, B_2, B_3 for the k -th type of the culture in i -th region. Errors ε_{it}^k – normal and mutually independent for fixed k .

3. The quantile regression model. Quantile regression gives the opportunity to get more information: estimates of the regression parameters for all quantiles of the distribution of the dependent variable.

In our paper, it will look like this:

$$Q_{B_{it}^k}(\tau | B_{1it}^k, B_{2it}^k, B_{3it}^k) = \beta_0^k + \beta_1^k B_{1it}^k + \beta_2^k B_{2it}^k + \beta_3^k B_{3it}^k, \tau = 0.1, \dots, 0.9$$

where τ – is the level of quantile and takes values from (0;1). If $\tau = 0.5$, then the model becomes a median (conditional median) regression.

The same way we calculated the modification of these three models, where instead of B – values of the deficit, we use B^* - the share of expenditure, which is covered by budget subsidies.

The results of the study are the verification of the existence and nature of the dependence of the deficit of the income Baumol's coefficients (analysis of the elasticities) and the experimental scheme of financing of cultural organizations.

Keywords: Baumol's «cost disease» productivity, wages, cost, income deficit

References:

- Baumol W. J., Bowen W.G. Performing Arts: The Economic Dilemma. The Twentieth Century Fund. New York, 1966.
- Nordhaus W. (2008) “Baumol's Diseases: A Macroeconomic Perspective”, Contributions to Macroeconomics, Berkeley Electronic Press, vol. 8(1)
- Rafael Fernandez, Enrique Palazuelo. European Union Economies Facing ‘Baumol's Disease’ within the Service Sector, JCMS: Journal of Common Market Studies, Volume 50, Issue 2, pages 231-249, March 2012
- Rubinstein A. Patronized goods in cultural sector symptoms and consequences of the "price's disease", Institute of Economics RAS, Moscow, 2012.
- Rubinshtein A. Studing «Patronized goods» in cultural sector. Econometric model of Baumol's disease. Part I. Creative and Knowledge Society, International Scientific Journal, 2013a, №1
- Rubinshtein A. Studing «sponsored goods» in Cultural Sector. Econometric model of Baumol's disease. Part II. Creative and Knowledge Society, International Scientific Journal, 2013b, №3