THE IMPACT OF FISCAL DECENTRALIZATION ON THE QUALITY OF LIFE IN THE REPUBLIC OF CROATIA

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Abstract - The decentralization of fiscal activities has become extremely significant in recent decades and it should improve the efficiency of the provision of services and the supply of public goods. Decentralization is the transfer of authority and responsibility from the central level of government to lower levels of government in the performance of public functions. The Croatian law defines decentralization functions of primary and secondary education, social welfare, health, and firefighting. The aim of this paper is to examine the impact of fiscal decentralization through the financial expenditures of the local level of government for decentralized functions in the Republic of Croatia and the share of autonomous tax revenues of the local level of government on infant mortality rates. In this paper, fiscal decentralization is measured through the financial expenditures of the local level of government for decentralized functions of health, education, and social welfare and also through the main measure of fiscal decentralization - the share of autonomous tax revenues of the local level of government as a share of the general tax revenue. Numerous international organizations consider infant mortality to be one of the basic measures of the overall health of society and the community, therefore, the infant mortality rate, in this paper, is used as a measure of the quality of life of the population of the Republic of Croatia. Multiple linear regression of the influence of independent variables on the infant mortality rate through a multiple correlation coefficient indicates a strong correlation between the observed variables.

Keywords - Fiscal Decentralization, Decentralized Functions, Infant Mortality Rate, Republic of Croatia.

I. INTRODUCTION

As the race and the concern for the general welfare of the nations increased in the last few decades so decisions makers in governments across the world decided to use a different approach and apply more fiscal decentralization in their national governments systems, so the main topic of this paper is an impact of fiscal decentralization on population’s life quality. One of the most important assumptions of the Theory of Fiscal Federalism is that more inclusion of the local population in a decision-making process related to questions relevant to the local communities will improve quality of life and increase the well-being of the population. Also, that goal isn’t the only one, according to some authors, other aims are greater democratization of society, social pluralism, reducing macroeconomic imbalances, elimination of bottlenecks in decision making, etc.

In recent years, an increasing number of studies have investigated the impact of decentralization on various population health indicators, such as infant mortality rates, population life expectancy, or immunization coverage rates. In general, larger part of the literature finds a positive impact of decentralization on health indicators.

The aim of this paper is to examine the effect of fiscal decentralization through local government financial expenditures for decentralized functions in the Republic of Croatia and the share of decentralized local government tax revenues on infant mortality rates. Fiscal decentralization is measured in this paper through local government financial expenditures for decentralized functions of health, education and social welfare and through the main measurement of fiscal decentralization - the share of autonomous decentralized local government tax revenues in relation to the general tax revenue of the Republic of Croatia. Numerous international organizations include infant mortality among the basic indicators of the overall health of society and the community, therefore the infant mortality rate is used in this paper as a measure of the quality of life of the population of the Republic of Croatia.

Four basic hypotheses are posed:

H1: A higher share of the tax revenue decentralization reduces the infant mortality rate in the Republic of Croatia.

H2: Greater allocation of local government funding for the decentralized health function reduces the infant mortality rate in the Republic of Croatia.

H3: Greater allocation of local government funding for the decentralized education function reduces the infant mortality rate in the Republic of Croatia.

H4: Greater allocation of local government funding for the decentralized function of social care reduces the infant mortality rate in the Republic of Croatia.

The research question could thereby be stated as: What is the impact of the tax revenue decentralization and allocation of local government funding for the decentralized functions on the quality of life of the population in the Republic of Croatia?
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II. THEORETICAL BACKGROUND

The decentralization of fiscal activities has become extremely significant in the recent decades. Since the economic justification for decentralization rests mainly on allocational and efficient grounds, it should primarily improve the efficiency of the provision of services and the supply of public goods. By strengthening the local public sector and lower levels of government, while weakening the role of the central government, contributed the traditional theory of fiscal federalism of the R. Musgrave.

Ebel and Yilmaz (2002) [1] state that in the period after the Bretton Woods Conference (1944) the prevailing opinion was that the most important programs for the development of a country were the influence of the central government to develop a plan to invest and maintain macroeconomic stability. Bretton Woods institutions (IMF and World Bank) also advocated in the mid-1990s, but according to Vinod et al. (2000) [2] this approach has shown serious shortcomings in developing countries such as the inability to achieve sustainable economic growth rates, reduced freedom of citizens, increased corruption and very poor levels of provision of “local” public services and the like. Ebel and Yilmaz (2002) [3] further state that based on the bad experiences of the last century, it was concluded that for good governance it is necessary to leave the decision to the population on which level of government should provide certain services and create a system of competent and transparent public institutions that can be understood and controlled.

Fiscal federalism exists (Tanzi, 1995: 297) [4] when sub national units are given powers by the Constitution or special laws to collect taxes and conduct spending within clearly defined legal criteria. Fiscal federalism means fiscal relations between the central government and lower levels of government (local/regional level), whereby the power to decide on public revenues and expenditures is distributed among them, and freedom to decide on the collection of tax revenues, as well as the determination of individual expenditures by local and regional units authorities. Decentralization can be defined in different ways, and according to Krtalić and Gasparini (2007) [5] decentralization means the transfer of authority and responsibility for performing public functions from the central level of government to subordinate levels, independent organizations or the private sector, bearing in mind how the transfer of responsibility cannot be made without adequate means. Kesner - Škreb (2009: 237) [6] state that the powers of local authorities depend on:

- the extent of the powers that local authorities have in allocating budgetary resources,
- the extent of authority in determining tax rates of local taxes and user fees.

The fiscal federalism theory starts from the assumption that the aim of decision-makers at all levels of government is to increase the well-being of the population. In recent times, fiscal federalism has been increasingly identified with the notion of fiscal decentralization.

Krtalić and Gasparini (2007) [7] state that Stigler, Musgrave, Oates, Brennan and Buchanan contributed the most to the definition of the conceptual framework of the fiscal decentralization. They also state in their paper that the goals of the fiscal decentralization differ from country to country which then also depends on many factors such as the economic development of the country, and, of course, the political situation. So the goal can be greater democratization of the state through bringing public finances closer to the citizens, then political (social) pluralism conditioned by different social groups. The goals of fiscal federalization can be identified by the expenditures left to the local level. Some public expenditures can be said to be almost always left to the lower levels of government. “In most countries, local authorities are responsible for financing utilities: local roads and lighting, water supply and sewer water drainage, garbage collection, landscaping of parks and sports fields, construction of social housing, etc.” (Kesner-Škreb, M., 2009: 237) [8]. While a greater focus on strengthening the local level of government would be the responsibility for financing public expenditures such as education, social welfare, health, maintenance of public order and peace and the like.

In the Republic of Croatia, according to the Act on the Financing of Local and Regional Self-Government Units (OG 127/17) [9], decentralized functions are primary and secondary education, social welfare, health care and firefighting.

Bird and Vaillancourt (1999) [10] state that each state, regardless of size (except those mini-states that do not have the need, or ability to have multiple levels of government), should have an answer, for themselves and their specific conditions, on four major questions regarding financial allocation powers and responsibilities:

- Who is doing what? - the issue of cost allocation,
- Who prescribes which taxes? - distribution of income,
- How can the differences between income and expenditures between different levels of government be resolved? - the issue of vertical imbalance,
To what extent should fiscal institutions try to adjust the differences between the needs and capacities between different units of government at the same level? - the issue of horizontal imbalance.

According to Boadway and Shah (2009) [11], some of the advantages of fiscal decentralization, and which would enable states to make better decisions on the balance between centralization and decentralization are:

- reduction of macroeconomic imbalances,
- reduction of the frequency of corruption,
- elimination of bottlenecks in decision making,
- freeing up the central government from performing routine tasks that consume their energy to solve political problems,
- the question of providing better service to citizens,
- greater innovation and creativity and an easier opportunity to experiment,
- greater political stability and national cohesion through better control of public programs at the local level,
- reduction of regional imbalances with the competition of different local government units,
- expanding forms of tax to collect public revenues.

Boadway and Shah (2009) [12] state that there is a frequent myth that there is a greater possibility of corruption at the local level and that a higher level of decentralization leads to macroeconomic imbalances, but decentralized fiscal systems offer the opportunity to create a better macroeconomic situation. Also, decentralized management in a quality way requires greater clarity of rules when making decisions in different centres of power, which can result in greater transparency of the system. Good control between different levels of government contributes to a better and more fair distribution of the resources. Further bottlenecks can be easily created at the central level and overburden the ministries which then deal with decision-making at the local level, which contributes to even greater bureaucratization and inefficiency of the system that loses energy by dealing with people's lives at the local level, which is much easier to do at the local level, and the state management broader picture is being lost, which should be the primary task of central government units. With increased administration and bureaucratic management, the quality of public service delivery definitely declines because the central government cannot always predict which solution would be best implemented in each local unit, while local politicians certainly know their community's problems better and can therefore create tailor-made solutions for the citizens of the local environment. Greater number and freedom of local units enables greater creativity and experimentation in the implementation of policies, and consequently more successful development of the state. Among the free units of local government that can experiment more easily in implementation of their policies, there is also a greater competition in attracting population and investments, which may ultimately lead to a reduction in regional imbalances with less help from the central government. Finally, each local unit can, within the prescribed freedoms, choose different tax forms that lead to more successful collection of public revenues.

In addition to the advantages, the disadvantages of fiscal decentralization can be found in the literature, so Krtalić and Gasparini (2007) [13] state the most often:

- central level investments create more externalities, while those at the local level contribute to improving the quality of life of the citizens of a certain unit,
- the potential for equalization is much higher in the centralized system because it has the disposal of the entire amount of public revenues,
- insufficient fiscal revenues at the central level,
- reduction of service quality in some units due to insufficient fiscal capacity,
- transfer of responsibilities without adequate transfer of funds to the local level,
- the coordination of local policies is more complicated,
- appropriation of certain functions by local powerful people,
- mutual mistrust between the private and public sectors which undermines cooperation at the local level.

Particular emphasis should be placed on the fact that each of these shortcomings may be specific to a particular system, but also some countries can better overcome them and thus cannot be universally found in every system with multiple levels of government, so it is necessary to approach each system individually its advantages and disadvantages.

The impact of fiscal decentralization can also be observed from the aspect of the quality of life of the population and their health status. Numerous studies show that health outcomes depend on the infant mortality rate (IMR) measured by the number of infant deaths up to one year of age per 1,000 live births. The infant mortality rate is considered to be sensitive to policy changes, such as decentralization reforms.

### III. PREVIOUS STUDIES

The issue of fiscal decentralization can be approached from different aspects of research. In Croatia, numerous scientific research papers are dedicated to the broader aspect of decentralization and fiscal decentralization research. In contrast to that, in the foreign literature we find numerous studies of the
effects of fiscal decentralization on the quality of life of the population and their health. The infant mortality rate is often considered an important parameter for measuring the quality of life and general well-being of the community. Therefore, the infant mortality rate will be used as a measure of the quality of life of the population of the Republic of Croatia in this paper as well. But to begin with, a review of previous studies on the impact of fiscal decentralization on the quality of life of the population in different parts of the world follows.

Ebel and Yilmaz (2001) [14] devote their research to the subnational function of health care where they cite immunization as the only variable related to health care. In doing so, the immunization rate represents the percentage of children younger than twelve months immunized for DTP (diphtheria, tetanus, and pertussis) and measles. The study covered six developing countries (Argentina, Brazil, Colombia, the Philippines, South Africa, and Venezuela). The results of the estimated model indicate that there is a positive statistical significance between decentralization and coverage of children younger than twelve months immunized for measles during the observed period from 1970 to 1999. Furthermore, Habibi et al. (2003) [15] in their empirical research use socio-economic and fiscal indicators of health and education of 23 Argentinian provinces and their relation to the level of decentralization. The authors of the study use a model of fixed effects for a period of 25 years (1970-1994). The model sought to determine the impact of independent variables of decentralized indicators (percentage of local government revenue collected, percentage of self-controlled revenue relative to total revenue, provincial GDP per capita, total per capita expenditure and number of public employees per 1,000 population) on two indicators of human development as dependent variables (infant mortality rate per 1,000 live births and the ratio of students enrolled in secondary school per 1,000 primary school students). The results of the study show that the infant mortality rate decreased from an average of 72 neonatal deaths in 1970 to 22.5 in 1994. The authors also conclude that the percentage of revenue collected at the local level and the share of controlled revenue in total revenue have a negative and significant correlation with the infant mortality rate for the Argentinian provinces during the observed period. It is important to note that the authors believe that inequalities between provinces have decreased significantly during the implementation of decentralization reforms. Child immunization is also addressed by Khaleghian (2004) [16], who in his study examines the impact of political decentralization on a key public service in almost all countries: childhood immunization. The author in his empirical research uses a time series of data from 140 low and middle-income countries from 1980 to 1997. The author examines the association between the decentralization and immunization coverage rates for DPT and measles vaccine in children up to 12 months of age. The regression model includes two variables for fiscal decentralization - subnational expenditures as a share of total national expenditures (indicating the fiscal freedom of subnational governments) and health expenditures as a share of all subnational expenditures (indicating the importance of health within total local government spending). The findings suggest that decentralization is associated with a higher immunization coverage rate in low-income countries, while this rate is lower in middle-income countries. Regression results by Asfaw (2007) [17] show that fiscal decentralization played a significant role in reducing infant mortality rates in rural India from 1990 to 1997. Cantarero and Pascual (2008) [18] investigate the impact of fiscal decentralization on the Spanish health care system. They present a model in their work with which they use the infant mortality rate and life expectancy as dependent variables to assess the impact of fiscal decentralization. The data presented show that the decentralization of the health care system has had a significant impact on infant mortality and life expectancy. Uchimura and Jütting (2009) [19] used panel data to analyze the impact of fiscal decentralization on China’s health care system and concluded that there is a link between the level of provincial decentralization and death of infants. Jimanez-Rubio (2010) [20] explores in his paper the hypothesis that the greater fiscal decentralization of the health sector contributes to the improvement of the nation’s health. The study used panel data from highly decentralized Canadian provinces from 1979 to 1995, and the results show that fiscal decentralization has a significant positive impact on the effectiveness of public policies in terms of improving the health of the population (the impact of decentralized funds on infant mortality). A study conducted in OECD member countries between 1995 and 2005 by Kang et al. (2012) [21] found a positive impact of decentralization on infant mortality rates, but also warns that decentralization is not a perfect way to improve the health outcomes. It is clear from the stated above that most of the existing empirical studies on the relationship between decentralization and health outcomes used decentralization indicators derived from the fiscal data of the observed countries. The level of decentralization in policy-making is largely a very complex process involving a number of political, fiscal and administrative levels, many of which are not easy to measure empirically. Therefore, according to Jimanez-Rubio [22], the exact measure of fiscal decentralization should take into account other issues, which are not purely fiscal, such as political autonomy or legal and regulatory structure. However, in the absence of more appropriate measures for
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Evaluating fiscal decentralization, fiscal decentralization indicators are found in the data sets of the International Monetary Fund, and the same approach to measuring fiscal decentralization is applied in this paper.

IV. METHODOLOGY

The focus of this paper is on the effect of allocating financial resources of local levels of government of the Republic of Croatia for decentralized functions of health, education and social welfare and the share of decentralized local government tax revenues (of the total general government tax revenues) on infant mortality in the Republic of Croatia during the observed period from 2008 to 2016.

It is necessary to clarify the strategic variables in advance in order to be able to determine the relationship between different variables through regression and correlation analysis. The decentralized tax revenue coefficient is calculated as the share of local government revenue in total government tax revenue, as shown by the formula:

\[
\text{Decentralizirani porezni prihod} = \frac{XG \text{ tax revenue}}{GG \text{ tax revenue}} \tag{1}
\]

Where XG represents the local level of government and GG the general government. Own source of revenue excludes a portion of revenue received as transfers from other government units, foreign governments and international organizations.

The data needed for the research were collected from various sources. The dependent variable used in the study is the infant mortality rate which shows the number of infant deaths per 1,000 live births. Data on infant mortality rates were collected from a secondary data source of the global research platform Statista. The average infant mortality rate in the Republic of Croatia in the period from 2008 to 2016 was 4.49 infant deaths per 1,000 live births. The main measure of fiscal decentralization, the share of autonomous decentralized local government tax revenues in relation to the general tax revenue of the Republic of Croatia, was obtained from a set of data based on access to macroeconomic and financial data of the International Monetary Fund. Furthermore, the data for the remaining independent variables on local government allocation / spending (% of GDP) for decentralized health, education and social welfare functions were obtained from a set of data based on access to macroeconomic and financial data of the International Monetary Fund - expenditure by government functions (COFOG). A regression model and correlation matrix within Microsoft Excel were used to examine the effect of independent variables on the dependent variable. The model includes four independent variables and one dependent variable where P - value in the regression model is given at the significance level of 0.05.

V. RESEARCH RESULTS

Table 1 shows the data for the Republic of Croatia for the selected four independent variables and one dependent variable whose interrelationship is analyzed below. The infant mortality rate in the Republic of Croatia during the observed period from 2008 to 2016 has a declining trend, i.e. the infant mortality rate decreased from 5.10 to 4.10 in the analyzed period. Tax revenue decentralization as a share of the general tax revenue has a relatively stable trend with smaller fluctuations during the observed period, with an average Tax revenue decentralization of 0.18 as a share of general government. Local expenditure on health as a share of gross domestic product rose sharply in 2015 from 0.30% to 2.10% of gross domestic product. The average local expenditure on health was 0.73% of the gross domestic product. In the same year, a sharp increase occurred in Local expenditure on education as a share of gross domestic product when the share of consumption increased to 5.10%, with the average Local expenditure on education 2.90% of gross domestic product. Local expenditure on social welfare as a share of gross domestic product has been in decline since 2014 with an average local expenditure of 1.31% of gross domestic product.

<table>
<thead>
<tr>
<th>Year</th>
<th>IMR</th>
<th>TaxRevDec</th>
<th>Health (% of GDP)</th>
<th>Education (% of GDP)</th>
<th>Social welfare (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5.10</td>
<td>0.17</td>
<td>0.30</td>
<td>1.90</td>
<td>1.20</td>
</tr>
<tr>
<td>2009</td>
<td>4.90</td>
<td>0.18</td>
<td>0.30</td>
<td>2.20</td>
<td>1.40</td>
</tr>
<tr>
<td>2010</td>
<td>4.70</td>
<td>0.18</td>
<td>0.40</td>
<td>2.30</td>
<td>1.40</td>
</tr>
<tr>
<td>2011</td>
<td>4.50</td>
<td>0.18</td>
<td>0.40</td>
<td>2.10</td>
<td>1.50</td>
</tr>
<tr>
<td>2012</td>
<td>4.40</td>
<td>0.19</td>
<td>0.30</td>
<td>2.40</td>
<td>1.40</td>
</tr>
<tr>
<td>2013</td>
<td>4.30</td>
<td>0.19</td>
<td>0.30</td>
<td>2.40</td>
<td>1.50</td>
</tr>
<tr>
<td>2014</td>
<td>4.20</td>
<td>0.20</td>
<td>0.30</td>
<td>2.60</td>
<td>1.50</td>
</tr>
<tr>
<td>2015</td>
<td>4.20</td>
<td>0.17</td>
<td>2.10</td>
<td>5.10</td>
<td>1.30</td>
</tr>
<tr>
<td>2016</td>
<td>4.10</td>
<td>0.17</td>
<td>2.20</td>
<td>5.10</td>
<td>0.60</td>
</tr>
<tr>
<td>Corr</td>
<td>-0.27</td>
<td>-0.56</td>
<td>0.73</td>
<td>-0.66</td>
<td>0.22</td>
</tr>
<tr>
<td>Avg</td>
<td>4.49</td>
<td>0.18</td>
<td>0.73</td>
<td>2.90</td>
<td>1.31</td>
</tr>
</tbody>
</table>

Table 1. Infant mortality rate and main indicators of fiscal decentralization in the Republic of Croatia from 2008 to 2016

Source: Authors’ own calculations
The obtained coefficients of multiple linear regression are:

\[ Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 \]  \hspace{1cm} (2)

Where:

- \( Y \) = infant mortality rate (dependent variable)
- \( X_1 \) = share of decentralized local government tax revenues (independent variable)
- \( X_2 \) = allocation of local government funding for the decentralized health function (independent variable)
- \( X_3 \) = allocation of local government funding for the decentralized education function (independent variable)
- \( X_4 \) = allocation of local government funding for the decentralized social welfare function (independent variable)

Multiple linear regression of the influence of independent variables on the dependent variable - infant mortality rate is significant because the calculated multiple correlation coefficient of 0.98 indicates a strong correlation between the dependent variable and the four selected parameters of the independent variables. In the observed period, an average of 4.49 infants per 1,000 live births died in the Republic of Croatia, with a standard deviation of ± 0.32 infant deaths per 1,000 live births. The determination coefficient of 0.9539 indicates that 95.39% of the deviation from the average infant mortality rate can be explained by the share of decentralized local government tax revenues and the allocation of local government funds for decentralized health, education and social welfare functions.

The obtained coefficients of multiple linear regression form the regression equation:

\[ Y = 13.12 - 52.15x_1 - 2.05x_2 + 0.87x_3 - 0.17x_4 \]  \hspace{1cm} (3)

The obtained analysis shows a negative and significant relationship between the share of decentralized local government tax revenues, a key independent variable, and infant mortality during the observed period. It is estimated that an increase in the share of autonomous tax revenue under local government by 1% in the share of GDP leads to a decrease in infant mortality by 52 infants per 1,000 live births. Based on the regression model, we do not reject the first hypothesis.

Furthermore, an increase in local government funding for a 1% decentralized health function in the GDP share of the presented model would reduce infant mortality by 2.05 infants per 1,000 live births. Based on the regression model, we do not reject the second hypothesis.

The dependent variable on the allocation of local government funding for the decentralized education function has a positive relationship with the infant mortality rate per 1,000 live births. Based on the regression model, we do reject the third hypothesis. An increase of 1% in the allocation of local government funding for the decentralized social welfare function in the share of GDP would reduce mortality by 0.17 infants per 1,000 live births. Based on the regression model, we do not reject the fourth hypothesis.

Of course, the whole model should be taken with caution as there are a number of other parameters that affect infant mortality. Due to the problem of the work itself, the previously presented independent variables were used to examine their impact on the infant mortality rate in the Republic of Croatia.

<table>
<thead>
<tr>
<th>IMR</th>
<th>( X_1 )</th>
<th>( X_2 )</th>
<th>( X_3 )</th>
<th>( X_4 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMR</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( X_1 )</td>
<td>-0.272</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( X_2 )</td>
<td>-0.558</td>
<td>-0.609</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>( X_3 )</td>
<td>-0.661</td>
<td>-0.469</td>
<td>0.984</td>
<td>1</td>
</tr>
<tr>
<td>( X_4 )</td>
<td>0.218</td>
<td>0.617</td>
<td>-0.733</td>
<td>-0.674</td>
</tr>
</tbody>
</table>

Table 2: Correlation Matrix
Source: Authors’ own calculations

Where:

- \( IMR \) = infant mortality rate (dependent variable)
- \( X_1 \) = share of decentralized local government tax revenues (independent variable)
- \( X_2 \) = allocation of local government funding for the decentralized health function (independent variable)
- \( X_3 \) = allocation of local government funding for the decentralized education function (independent variable)
- \( X_4 \) = allocation of local government funding for the decentralized social welfare function (independent variable)

The results in the correlation matrix table show that there is a negative statistical relationship between the dependent infant mortality rate variable and the independent variables \( x_1, x_2 \) and \( x_3 \), while a positive statistical relationship was observed for the independent variable \( x_4 \) with the dependent variable. The correlation coefficient of -0.27 suggests a weak negative correlation between the dependent variable on infant mortality rate and the independent variable on the share of decentralized local government tax revenues. Furthermore, the correlation coefficient - 0.56 indicates a moderate or good correlation between the negative direction of the dependent
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infant mortality variable and the independent variable of local government funding for the decentralized health function in the Republic of Croatia during the observed period. The obtained correlation coefficient -0.66 indicates a moderate i.e. good correlation between the negative direction of the dependent infant mortality variable and the independent variable of local government funding for the decentralized function of education in the Republic of Croatia during the observed period. The obtained correlation coefficient also represents the largest influence on the dependent variable. The last correlation coefficient of 0.22 indicates that there is no correlation between the independent variable of the local government financial allocation variable for the decentralized social welfare function in the Republic of Croatia during the observed period and the dependent infant mortality rate variable.

VI. CONCLUSION

In recent years, an increasing number of studies have investigated the impact of decentralization on various population health indicators, such as infant mortality rates, population life expectancy, or immunization coverage rates. In general, larger part of the literature finds a positive impact of decentralization on health indicators.

The results of the econometric estimations for the Republic of Croatia suggest that decentralization has had a positive and substantial influence on the effectiveness of public policy in improving the population’s health (in terms of a reduction in infant mortality rates). Multiple linear regression of the influence of independent variables on the infant mortality rate through a multiple correlation coefficient indicates a strong correlation between the observed variables. Based on the regression model, we do not reject the three of four posed hypothesis. Although decentralization is a complex phenomenon, to date there is no single measure that encompasses all the multiple dimensions of the decentralization process.

There are several reasons why this study should be interpreted with caution. First of all, the paper analyses only one dimension of decentralization, more precisely only fiscal decentralization. Furthermore, although the measure of health outcomes used in paper - the infant mortality rate is superior to alternative indicators such as life expectancy, it does not fully reflect the basic level of health in society or a full measure of the quality of life. The whole model should be taken with caution as there are a number of other parameters that affect infant mortality.

Although the research revealed positive effects of fiscal decentralization on reducing the infant mortality rate in the Republic of Croatia, further research is recommended to find the effects of fiscal decentralization on the other segments of the quality of life of the population in the Republic of Croatia.

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