



## The Level of Fiscal Autonomy: Evidence from Croatia, Serbia and Bosnia and Herzegovina

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### Abstract

The role of local government units and the level of fiscal autonomy are the main drivers of local development activities in countries. The aim of this paper is to measure the level of fiscal autonomy of large cities that have been identified as conductors of local development activities in three Southeastern European (SEE) countries, namely Croatia, Serbia and Bosnia and Herzegovina, as well as to compare the level of fiscal autonomy between large cities and other remaining local units in the respective countries. The results of the research measured by the index of fiscal autonomy and compared with the index of fiscal autonomy of all remaining local government units in each of these countries indicate limited fiscal autonomy. This research provides new scientific evidence and fills the gap regarding the level of fiscal autonomy of large cities to improve and increase their budget capacity.

### Keywords:

fiscal autonomy, local public finance, local government, Croatia, Serbia, Bosnia and Herzegovina.

## 1. Introduction

Throughout the world, the role of large cities in carrying out local development activities has been recognized. Therefore, local governments, in cooperation with the state government, are trying to increase their level of fiscal autonomy in order to achieve the sustainability and economic growth of a country.

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This research represents one of the first attempts at measuring the level of fiscal autonomy of large cities in three SEE countries – Croatia, Serbia and Bosnia and Herzegovina – and comparing it with the other remaining local units in the respective countries.<sup>4</sup> The role of large cities is very important because the academic and research community in the SEE countries strongly promotes the need for further decentralization. Large cities are recognized as units with high fiscal and human capacities. In SEE countries around two-thirds of budget revenues belong to cities and only one-third to municipalities. The average size of municipalities measured by the number of inhabitants in three SEE countries is considerably smaller than the average size of cities.

The expected result is the calculation of the index of fiscal autonomy of cities in SEE countries. The city's index of fiscal autonomy is defined as the city's ability to determine tax rates and tax bases without external influence, to independently determine how to spend that income, as well as the ability to provide the level of services for citizens. There are a number of arguments in favor of increasing the fiscal autonomy of cities. It encourages greater responsibility of local politicians because lobbying the central government for obtaining support may lead local politicians to make decisions on allocating public funds that are unrelated to economic efficiency. Dependence on grants would lead cities to inefficient public spending or to wasting public funds. The negative side of fiscal consolidation is the consequence of the potential migration of production factors due to tax competition, the danger of large administrative costs and the complexity of the system.

There is a large difference in the sizes and administrative structures of the three SEE countries. Croatia has 4.2 million inhabitants, Bosnia and Herzegovina 3.5 million and Serbia 7.0 million. State laws define the scope and the original competencies of municipalities, organizations and ways of financing. Laws on local government define cities and large cities, which mainly differ in the number of cities and their sizes. The term *large city* refers to one of the categories of local government units in each country. Croatian legislation defines large cities as urban settlements with more than 35,000 inhabitants, or county centers.<sup>5</sup> The total number of cities in Croatia with the status of a large city is 25; 17 cities have more than 35,000 inhabitants and 8 cities are county centers with fewer than 35,000 inhabitants. There are a total of 128 cities in Croatia. In Croatia there are 429 municipalities as local government units. In Serbia, the term *large city* refers to cities with more

4 The research results of Ladner et al. (2015) contain a calculation of Local Autonomy Index for Croatia and Serbia (not for Bosnia and Herzegovina) for the period 1990–2014. According to this index, Croatia is classified in a group of countries with a medium degree and Serbia in a group of countries with a medium-high degree of local autonomy.

5 The Law on Local and Regional Self-Government (Official Gazette 33/01, 60/01, 129/05, 109/07, 125/08, 36/09, 150/11, 144/12, 19/13, 137/15) in Article 21 defines the term of a large city in Croatia as a city with more than 35,000 inhabitants and county centers.

than 100,000 inhabitants.<sup>6</sup> Thus, this paper deals with four out of 25 cities in Serbia. There are 29 districts in the Republic of Serbia and more than 120 municipalities. In Bosnia and Herzegovina, the term *large city* refers to canton centers and the other cities that are included in the official list of cities.<sup>7</sup> The analysis includes 12 cities in Bosnia and Herzegovina. The local level of government in Bosnia and Herzegovina consists of an additional 131 municipalities and Brčko District with a special status (see Appendix 1).

There are different definitions of large cities in Croatia, Serbia and Bosnia and Herzegovina. But, in all three SEE countries, there are many small local self-government units without enough financial, fiscal and organizational capacity to stimulate local development. Large cities as local self-government units with higher financial, fiscal and organizational capacity have a great significance for local development at the country level in the three SEE countries (Ladner et al. 2015). Despite different local government legislation in the three SEE countries, local development activities are mainly in the hands of large cities. According to legislation, the rest of the local self-government units, like towns and municipalities, do not have enough financial capacity, inhabitants and revenues to stimulate any important activities in order to have a sustainable and active local government economy. A main reason for the comparison of the fiscal autonomy of the large cities in the three SEE countries with the other remaining local units is to draw some important conclusions on the potential role of large cities in providing and financing public services.

The goals of this paper are the measurement and comparative analysis of the level of fiscal autonomy of large cities in Croatia, Serbia and Bosnia and Herzegovina and the other remaining local units to determine the level of fiscal autonomy. We therefore compare indexes of the fiscal autonomy of large cities to those of all the remaining local government units in each country. Based on legislation, large cities in all three SEE countries have a higher status regarding the provision of public services and the manner of funding. Moreover, our expectations are that because of their size and fiscal capacity large cities have more fiscal autonomy in comparison with the remaining towns and municipalities in the three SEE countries. The results

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6 The Law on the Territorial Organization of the Republic of Serbia (Official Gazette 129/07) in Article 17 defines that the city is a territorial unit representing the economic, administrative, geographical and cultural center of the wider area and has more than 100,000 inhabitants.

7 The Law on the Principles of Local Self-Government in the Federation of Bosnia and Herzegovina (Official Gazette of the Federation of Bosnia and Herzegovina 51/06) in Article 5 defines that a city, as a unit of local self-government, represents an urban, infrastructural unit linked to the daily needs of the population. Apart from the Constitution, the term city has been established by a federal law on the basis of an association agreement between two or more municipalities, i.e. by the decision of the Municipal Council, and has at least 30,000 inhabitants or at least 10,000 inhabitants living in the city center as a rounded urban area. The city also represents the seat of the canton regardless of its number of inhabitants. The Law on Local Self-Government of the Republic of Srpska (Official Gazette 42/05) states in Article 55 that a city may be established by the law in an urban area that makes a coherent geographical, social, economic, historical and territorial unity with an appropriate level of development.

of the research conducted differ among the three SEE countries. Based on the results of this research, we have identified the main obstacles that need to be eliminated in order to achieve a higher level of fiscal autonomy and provide some important recommendations to policymakers in the three SEE countries.

Among local government units, cities have limited responsibility to impose, subject to statutory limits and thus contribute to the collection of revenues in the city budget. Jurlina Alibegović (2010) shows that cities in the three countries do not use the available fiscal instruments sufficiently for planning and realizing budget revenues. In recent decades, many countries, in Europe and beyond, have attempted to strengthen the autonomy of local government (Ladner et al. 2015). They measured and compared local autonomy among European countries by including the following seven dimensions of local autonomy: legal autonomy; policy scope; effective political discretion; financial autonomy; central or regional control, and vertical influence. They found four groups of countries – a group of countries with a high degree of autonomy (Denmark, Finland, Sweden, Norway and Iceland), a group of countries with a medium-high degree of autonomy (Switzerland, Germany, Poland, Liechtenstein, Italy, Serbia, France, Bulgaria, Lithuania, the Czech Republic, Austria and Estonia), a group of countries with a medium degree of local autonomy (the Slovak Republic, Portugal, Belgium, the Netherlands, Macedonia, Romania, Croatia, Luxembourg, Latvia and Spain) and a group of countries with a medium-low degree of autonomy (Hungary, Albania, Slovenia, Ukraine, Greece and the United Kingdom). Among the countries observed, we noticed that Serbia is in the group of countries with a medium-high degree of autonomy and Croatia in the group of a medium degree of local autonomy, while Bosnia and Herzegovina is not included in this research. Since Bosnia and Herzegovina is not included in either of those research projects, our attempt was to fill this gap in scientific literature.

However, insufficient attention has been given to the increase of fiscal autonomy, and its measurement, for large cities in the three SEE countries. Scientific literature does not pay much attention to the analysis of the role of the potential of large cities to promote local development in transition countries. This explains the focus of our research on large cities in Croatia, Serbia and Bosnia and Herzegovina when attempting to determine the level of fiscal autonomy of large cities compared with the remaining municipalities, towns and smaller cities in each of these countries to increase local budget capacity.

Our research explores fiscal autonomy and several other dimensions of large cities' autonomy. In our research, we obtained answers to the following questions: (1) what are the differences between large cities and other local government units regarding the way they are financed and what is the impact of the method of financing on the role and importance of large cities? and (2) to what extent are large cities consulted by higher levels of government in the policy-making process, or vice versa?

The paper is structured as follows. The second section describes the theoretical background for calculating the index of fiscal autonomy of sub-national authorities. The third section presents the methodology and data for measuring and comparing the index of fiscal autonomy of Croatian, Serbian and Bosnian-Herzegovinian large cities. Empirical results and a discussion of the key findings of the research are presented in the fourth section. The last section comprises the main conclusions, recommendations and policy implications for decision-makers at all levels of government to promote fiscal autonomy in local government units and, in particular, in the large cities in the three countries.

## **2. Theoretical background**

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In scientific literature, there is no consensus on a single definition of local government fiscal autonomy. The issue also consists in defining the fiscal and financial autonomy of local government units. Clark (1984) defines local autonomy as the competence of local authorities to carry out tasks in the local authority's own interests, as well as the possibility for a local authority to act without being under the control of higher levels of government. He examines local autonomy, analyzing to what extent higher levels of government delegate responsibilities without taking into account the concrete capabilities of local government to act. Wolman and Goldsmith (1990) consider fiscal autonomy to be the capacity of the sub-national government to have independent power regarding the prosperity of the residents in the local community. According to Boyn (1996) local government autonomy can be defined as the power of a sub-national government and capacity to innovate, experiment, and develop policies that can be diverse in different local jurisdictions. Chapman (1999) considered fiscal autonomy to be the capacity of the local authority both to increase adequate revenues from the local economy and then to decide how to spend those revenues. Darby et al. (2002) stressed that some degree of fiscal autonomy could have a positive impact on economic efficiency and democratic participation in local government elections. Wolman et al. (2008) define local autonomy in three dimensions of local government – importance, discretion and capacity. Finally, we can conclude that the general definition of fiscal autonomy of local government refers to the ability of the local jurisdiction to set tax rates and establish the revenue base without outside influence, to determine how to spend those revenues as well as having the ability to provide the service levels that are demanded by the jurisdiction's citizens.

Other researchers highlight the importance of financial resources for the autonomy of local authorities (Pierre 1990; Pratchett 2004). Recently, researchers have also tried to measure and compare countries by the degree of local autonomy of sub-national authorities and/or level of decentralization in the country (Fleurke and Willemse 2006; Sellers and Lidström 2007; Wolman et al. 2008;

Hooghe et al. 2010; Goldsmith and Page 2010; Ivanyna and Shah 2012; Do Vale 2015; Ladner et al. 2015).

There are various aspects of local autonomy and a variety of proposed indicators to measure the degree of local autonomy for comparative purposes. Different authors have used different dimensions to measure the degree of local autonomy (Blöchliger and King 2005; Blöchliger and Rebesone 2009; Kim et al. 2013). They applied methodology where they divided sub-national tax revenues into six main categories of fiscal autonomy. Later in the research, we applied this methodology to measure the level of fiscal autonomy of large cities in the three SEE countries. Ivanyna and Shah (2012) measure the degree of decentralization of government and recognize political, administrative and fiscal dimensions of decentralization. There have been some attempts to measure and compare local autonomy among European countries. Ladner et al. (2015) proposed a comprehensive methodology, and the research results show an increase in local autonomy between 1990 and 2014, especially in Central and Eastern European countries. The Organisation for Economic Co-operation and Development (OECD) and the World Bank (WB) have collected data mainly dealing with the local expenditures and tax-raising powers of sub-national governments and transfers/grants in numerous countries. These institutions have not explored the various aspects of the fiscal autonomy of local authorities.

The literature lacks research on the fiscal autonomy of local authorities in SEE countries. Swianiewicz (2014) conducted research comparing 20 Eastern European countries, in which one of the criteria refers to the financial autonomy of sub-national governments. In his work he measured the level of financial autonomy by using the following indicators: share of locally controlled taxes in total revenues; the shape of the grant allocation system, and local government debt as a percentage of gross domestic product. He found that the level of financial autonomy of local government of Croatia is lower than in countries like Hungary, Poland, Slovakia, Czech Republic, Estonia and Latvia. For Serbia he found that the model with a high level of territorial consolidation has remained unchanged for well over 20 years. Some aspects of the measurement of the fiscal autonomy of local governments in Croatia and Serbia are covered by the research of Ladner et al. (2015). Regarding Bosnia and Herzegovina, the literature does not provide empirical research on the level of fiscal autonomy of cities and municipalities. Apart from defining the concept of fiscal autonomy, the literature also contains a number of other aspects related to the autonomy of sub-national governments (see Appendix 2).

### **3. Methodology and data**

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The research methodology is based on the use of data available in the local budgets for the fiscal year 2015 for Croatia, Serbia and Bosnia and Herzegovina, and uses the classification of budget data according to the OECD classification system (Ladner et

al. 2015). Since the legislation in Croatia, Serbia and Bosnia and Herzegovina distinguishes large cities as local self-government units with a special status in terms of competencies in providing public services and, partly, in the way of funding, our aim is to measure the difference in fiscal autonomy level between large cities and all other local self-government units in all three countries. The aim is to examine the capacity of large cities in the realization of tax revenues for financing the provision of local public goods. We also want to explore whether or not the level of fiscal autonomy of large cities and other local self-government units is the same or whether there is a significant difference between them. In our research, we concentrated only on tax revenues, which make up the majority of total local government revenues. For example, in Croatia tax revenues of large cities account for about 2.2 percent of the gross domestic product and 8.9 percent of the total consolidated tax revenue (Jurlina Alibegović et al. 2018). In Bosnia and Herzegovina, they account for about 0.9 percent of the gross domestic product and 7.3 percent of the total consolidated tax revenue, while in Serbia the share of tax revenues of the gross domestic product is 0.7, and 1.9 percent of the total consolidated tax revenue. In this research, we did not focus on non-tax revenues, grant revenues and borrowing, since local government units have no autonomy in their determination and because of a great difference among countries in their establishment. For general information, in Bosnia and Herzegovina cities receive on average 55 percent of tax revenues, 29 percent of non-tax revenues, 7 percent of grant revenues and around 2.5 percent of borrowing (only seven cities are in the status of borrowing). The situation in Croatia is completely different. Cities receive on average 58 percent of tax revenues, 20 percent of non-tax revenues, 10 percent of grant revenues and 3 percent of borrowing. Serbian cities finance their activities from tax revenues (60 percent), non-tax revenues (17 percent), grants (18 percent) and borrowing (4 percent).

In the paper we followed the methodology developed by Blöchliger and King (2005), Blöchliger and Rebesone (2009) and Kim et al. (2013) to calculate the level of fiscal autonomy of municipalities and cities and particularly large cities in the three countries. The tax-raising autonomy of sub-national government units can be high when municipalities, cities and large cities are free to set both the tax rate and tax base. If a central government sets both, i.e. tax rate and tax base, then municipalities, cities and large cities have no tax autonomy. The main categories of sub-national government units' taxation power and the index of fiscal autonomy of sub-national government units are presented in Table 1. There are six main categories of tax revenues of local government units. The highest level of autonomy in the case of tax revenue is when local government units independently determine the tax rate and the tax base. A weight for that type of sub-national tax revenue is 1. The lowest level of autonomy of sub-national government is when the tax rate and the tax base are determined by the central state itself, where the weight assigned for that type of sub-national tax revenue is 0. Following the simplest definition of the index of fiscal autonomy, namely a weighted average index, we have developed the

**Table 1**

The classification system of types of sub-national tax revenues

Main categories of autonomy	Indicators of tax autonomy	Weights	The index of fiscal autonomy
(a)	Sub-national government units have full power over tax rates and tax bases	1	$(a) * 1 + (b.1) * 0.75 + (b.2) * 0.5 + (c) * 0.75 + (d.1) * 0.75 + (d.2) * 0.5 + (d.3) * 0.05 + (d.4) * 0.25 + (e) * 0 + (f) * 0$
(b.1)	Sub-national government units have full power over tax rates	0.75	
(b.2)	Sub-national government units have restricted power over tax rates	0.5	
(c)	Sub-national government units have power over tax bases	0.75	
(d.1)	Tax-sharing arrangements between the central government and sub-national government units, where sub-national government units can determine the revenue split	0.75	
(d.2)	Tax-sharing arrangements between the central government and sub-national government units, where the revenue split is set by the sub-national government units	0.5	
(d.3)	Tax-sharing arrangements between the central government and sub-national government units, where the revenue split is set by the central government	0.05	
(d.4)	Tax-sharing arrangements between the central government and sub-national government units, where the central government can independently decide on the revenue split once a year	0.25	
(e)	The central government sets tax rates and tax bases	0	
(f)	Non-allocable taxes	0	

Source: Blöchliger and King (2005), Blöchliger and Rebesone (2009) and Kim et al. (2013).



formula for measuring the tax-raising autonomy of sub-national government units by multiplying the different taxation revenues in the last column of Table 1 with the appropriate weights between 0 and 1. That formula is used to calculate the level of fiscal autonomy of large cities and all remaining towns and municipalities in Croatia, Serbia and Bosnia and Herzegovina.

The classification system of local budget data used by Blöchliger and King (2005), Blöchliger and Rebesone (2009), and Kim et al. (2013) classifies sub-national tax revenues according to the extent to which large cities in the three countries control their revenues and identifies the capacity of these local units to introduce taxes and autonomously create revenue.

In this research, we could not perform a longer period of analysis because of the lack of data. We were limited to the year 2015, which nevertheless permitted us to attain an overview of the current fiscal autonomy of large cities in relation to all local government units and avoid the risks associated with the inability to collect data over a longer period of time and changes in the methodology of monitoring data in the analyzed countries.

To ensure data quality, we only used publicly available data published by the Ministries of Finance in the three countries. Along with this information, we used publicly available data from the Eurostat database and available results of fiscal autonomy presented in different research studies. Where necessary, we also used data and information publicly available on the webpage of the Standing Conference of Towns and Municipalities of Serbia and the Association of Municipalities and Cities of Bosnia and Herzegovina.

## **4. Empirical results**

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Regardless of the common history and affiliation to the same state (Yugoslavia) with the same organization and method of financing up to the 1990s, today the financing of municipalities and cities in the three countries is fundamentally different. While in Croatia a relatively significant number of large cities (25) exists, in Bosnia and Herzegovina there are fewer, 12 in total, and in Serbia only 4. There are differences between the three countries regarding the main sources of revenues of large cities. In Croatia and Serbia, the main revenue source of large cities is income tax as shared revenue between the state and local government authorities, while in Bosnia and Herzegovina indirect taxes are the main sources of revenue for large cities. Large cities in the three countries do not have the same significance with relation to the other two indicators, namely the share of their tax revenues of the gross domestic product and the share of their tax revenues of the total tax revenues of consolidated general government. Based on these indicators, the significance of large cities in Croatia is higher than those in Serbia and Bosnia and Herzegovina. Therefore, according to their national legislation, we did not fo-

cus on non-tax revenues, grant revenues and borrowing, since local government units have no autonomy in their determination.

As far as the fiscal autonomy of large cities is concerned, the calculation has shown that large cities in Croatia have the highest index of fiscal autonomy (54.95) compared to large cities in Serbia (17.35) and Bosnia and Herzegovina (25.00). Fiscal autonomy of large cities in Croatia and Serbia is only slightly higher than the fiscal autonomy of the remaining municipalities and cities in those countries (Croatia 54.34 and Serbia 14.47), while the fiscal autonomy of large cities and other municipalities and cities in Bosnia and Herzegovina is the same (25.00) (see Appendix 3).

The results of the research indicate that the limited fiscal autonomy of large cities in Croatia, Serbia and Bosnia and Herzegovina, measured by the index of fiscal autonomy and compared with the index of fiscal autonomy of all remaining local government units in each of these countries, can be identified as an obstacle for more efficient and sustainable financial and other dimension activities of local government units. More precisely, large cities do not have sufficient capacity and autonomy to be the initiators and executors of local strategic decisions. The current structure of large cities' budgets indicates that their main revenue categories are those for which the decision regarding tax base and tax rate is not in the hands of the cities themselves, but in the hands of the state government. This structure of large cities' budgets is recognized as a constraint for making decisions about local development activities in Croatia, Serbia and Bosnia and Herzegovina.

## 5. Conclusions

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To provide adequate social and public services to local citizens, it is important to ensure the good quality of local government policy. Everywhere in the world, large cities have been identified as carriers of local development activities in their respective countries. This role can be enhanced by increasing their degree of independence in the types of their main revenues and by increasing their accountability regarding the implementation of local development activities. In addition, these empirical results contribute to the development by filling the void with relation to the field of study focusing on large cities' fiscal autonomy in selected SEE countries. In fact, for Croatia, Serbia and Bosnia and Herzegovina, this research represents one of the first attempts at measuring the fiscal autonomy of large cities and comparing it with other local units.

Based on the empirical results, we conclude that, among the large cities in the three SEE countries, the highest index of fiscal autonomy was recorded in Croatia (54.95). The situation is similar for all other local units (municipalities and cities), and the index of fiscal autonomy is highest in Croatia (54.34). Based on the results observed, we noticed that local government fiscal autonomy in other analyzed countries is relatively low (25.00) in Bosnia and Herzegovina and very low (17.35)

in Serbia. Based on these results, we concluded that their large cities do not have sufficient fiscal autonomy in increasing budget capacity and that local government legislation needs to be improved.

The main obstacles that need to be eliminated in order to achieve a higher level of fiscal autonomy of cities relates to new way of financing cities. A recommendation to policymakers in the three SEE countries relates to increasing the tax autonomy of cities that they have over their own taxes. It covers the freedom of cities to introduce or to eliminate a tax, to set tax rates, to outline the tax base, or to grant tax allowances or reliefs to individuals and firms. In all three SEE countries taxes are shared between the state and city levels. Tax-sharing arrangements need to include cities in negotiation of the sharing formula with the state government. City governments need to have somewhat more discretion over their tax revenue, since their tax revenue is often entrenched in tax sharing arrangements. There are two different ways of tax-sharing arrangement – tax revenue is divided vertically between the state and local governments as well as horizontally across local governments. In a new tax-sharing arrangement, a city needs to have the power to set tax rates or bases; also the city may change the sharing formula or the tax rates. Often tax-sharing arrangements contain an element of horizontal fiscal equalization. Tax-sharing contains less autonomy on the part of city governments than autonomous taxes.

To provide stable local financial management systems in the large cities of all three countries, policy decision-makers need to focus more on internal revenue in the local budget. By increasing internal revenue in local budgets and by means of the proper design of a local government fiscal policy, they can increase the financial and fiscal autonomy of local governments. Therefore, the index of fiscal autonomy, as a key measure of fiscal decentralization and local governance, will also increase, as will the responsibilities of large cities to promote local development activities.

However, this research has its limitations, since it only analyzes the fiscal autonomy of local government units in three selected SEE countries. Further research should include other important dimensions of autonomy, like functional, organizational and political aspects, and cover a longer time period, despite everyday changes in national legislation.

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## Appendix 1

### List of large cities in Croatia, Serbia and Bosnia and Herzegovina

Large cities, Republic of Croatia		Number of inhabitants
<i>Large cities, more than 35,000 inhabitants</i>		
1.	Zagreb	790,017
2.	Split	178,102
3.	Rijeka	128,624
4.	Osijek	108,048
5.	Zadar	75,062
6.	Velika Gorica	63,517
7.	Slavonski Brod	59,141
8.	Pula	57,460
9.	Karlovac	55,705
10.	Sisak	47,768
11.	Varaždin	46,946
12.	Šibenik	46,332
13.	Dubrovnik	42,615
14.	Bjelovar	40,276
15.	Kaštela	38,667
16.	Samobor	37,633
17.	Vinkovci	35,312
<i>Large cities, county centers</i>		
18.	Koprivnica	30,854
19.	Vukovar	27,683
20.	Čakovec	27,104
21.	Požega	26,248
22.	Virovitica	21,291
23.	Gospić	12,745
24.	Krapina	12,480
25.	Pazin	8,638
<b>Large cities, Republic of Serbia</b>		
1.	Beograd	1,659,440
2.	Novi Sad	341,625
3.	Niš	260,237
4.	Kragujevac	179,417
<b>Large cities, Bosnia and Herzegovina</b>		
1.	Banja Luka	185,042



2.	Sarajevo	118,553
3.	Tuzla	110,979
4.	Zenica	110,665
5.	Bijeljina	107,715
6.	Mostar	105,797
7.	Doboj	71,441
8.	Prijedor	89,397
9.	Bihać	56,261
10.	Trebinje	29,198
11.	Široki Brijeg	28,929
12.	Istočno Novo Sarajevo	10,642

Source: Croatia – Census 2011, Croatian Bureau of Statistics; Serbia – Census 2011, Statistical Office of the Republic of Serbia; Bosnia and Herzegovina – Census 2013, Agency for Statistics of Bosnia and Herzegovina.

## Appendix 2

### Literature review on the fiscal autonomy of local government units

<b>Authors</b>	<b>Topic/Area of research</b>	<b>Approach/Results</b>
Clark (1984), Page and Goldsmith (1987), Wolman and Goldsmith (1990), Pratchett (2004), Vetter (2007), Wolman (2008), Wolman et al. (2008)	Definition of fiscal autonomy	Four ideal types of autonomy Active or passive autonomy granted from "above" in limited amounts
Sellers and Lidström (2007), Hooghe et al. (2010), Ivanyna and Shah (2012), Aristovnik (2012), Do Vale (2015)	Degree of local autonomy/decentralization	The degree of local autonomy varies, and their combination varies in a large number of countries and sub-national tiers
Fleurke and Willemse (2006) Wolman et al. (2008) Ladner et al. (2015)	Comparison and measurement of local autonomy among countries	A Decision-making Approach (example of Dutch case) Three dimensions of local autonomy: local-government importance, local-government discretion, and local-government capacity (example of the United States) Local Autonomy Index (LAI) for 39 European countries (28 EU Member States plus Norway, Iceland, Liechtenstein, Switzerland, Albania, Macedonia, Moldova, Georgia, Serbia, Turkey and Ukraine)
Jones and Stewart (1983), Prud'homme (1981), De Vries (2000), Boadway (2001), Oates (2005)	Benefits of local autonomy	Local autonomy improves citizen participation and democratic control; improvements through benchmarking; trade-off with economic efficiency
Meloche et al. (2004)	Relation between decentralization and economic growth and decentralization and public-sector size	Public-sector size is influenced by fiscal autonomy, as well as by economic growth (example of European transition countries)
Karanikolas and Hatzipantel (2010)	Impact of decentralization on rural development	Negative response on the implementation of decentralization (example of Greece)

Zhang and Zou (1998)	Influence of fiscal decentralization on positive or negative economic growth	Fiscal decentralization has a negative impact on economic growth (example of 28 provinces of China)
Lin and Liu (2000)		Fiscal decentralization contributes significantly to economic growth (example of 28 provinces of China)
Behnisch et al. (2003)		Negative connection between expenditure decentralization and growth (example of Germany)
Feld et al. (2004)		Negative impact on economic performance (example of 26 Swiss cantons)
Akai et al. (2007)		Hump-shaped relationship between fiscal decentralization and economic growth (example of 50 U.S. states)
Thorton (2007)		No robust effect of revenue decentralization on economic growth (example of 19 OECD countries)
Baskaran and Feld (2009)		Fiscal decentralization and economic growth are unrelated (example of 23 OECD countries)
Bryson (2010)		Property tax (real estate tax) may serve as a tool for fiscal autonomy of local governments

Source: Authors' systematization.

## Appendix 3

### Fiscal autonomy of large cities, cities and municipalities in Croatia, Serbia and Bosnia and Herzegovina

Croatia				
<i>Types of tax revenues</i>	<i>Cities and municipalities, % in tax revenues of cities and municipalities (excluding large cities)</i>	<i>Large cities, % in tax revenues of large cities</i>	<i>Category of autonomy by OECD classification</i>	<i>Ponders</i>
Tax on secondary homes, %	2.75	0.61	(b.2)	0.5
Taxes on use of public land, %	0.87	0.67	(a)	1
Consumption tax, %	2.94	1.15	(b.2)	0.5
Trade name tax, %	2.17	0.89	(b.2)	0.5
Surtax and income tax, %	77.98	92.33	(b.2) and (d.3)	0.5 + 0.05
Real estate transfer tax, %	13.29	4.35	(b.2)	0.5
Share of tax revenues of GDP, %	0.75	2.21		
Share of tax revenues of total tax revenues of consolidated general government, %	3.01	8.91		
<b>Index of fiscal autonomy</b>	<b>54.34</b>	<b>54.95</b>		

<b>Bosnia and Herzegovina</b>				
<b>Types of tax revenues</b>	<i>Cities and municipalities, % in tax revenues of cities and municipalities (excluding 12 cities with the special status of the city)</i>	<i>12 cities with the special status of the city, % in tax revenues of 12 cities with the special status of the city</i>	<i>Category of autonomy by OECD classification</i>	<i>Ponders</i>
Profit tax on individuals and companies	0.10	0.03	(d.4)	0.25
Taxes on personal income and income from self-employed activities	5.50	11.71	(d.4)	0.25
Property taxes	12.80	13.25	(d.4)	0.25
Sales and service taxes	0.65	0.42	(d.4)	0.25
Income tax	8.02	10.06	(d.4)	0.25
Indirect taxes	72.74	64.45	(d.4)	0.25
Other tax revenues	0.19	0.08	(d.4)	0.25
Share of tax revenues of GDP, %	1.73	0.87		
Share of tax revenues of total tax revenues of consolidated general government, %	14.64	7.31		
<b>Index of fiscal autonomy</b>	<b>25.00</b>	<b>25.00</b>		

<b>Serbia</b>				
<b>Types of tax revenues</b>	<i>Cities and municipalities, % in tax revenues of cities and municipalities (excluding 4 large cities)</i>	<i>4 large cities, % in tax revenues of 4 large cities</i>	<i>Category of autonomy by OECD classification</i>	<i>Ponders</i>
Property taxes	23.52	28.72	(b.2)	0.5
Income tax	66.00	64.52	(d.3)	0.005
Taxes on inheritances and gifts	0.41	0.28	(b.2)	0.5
Tax on capital transactions	4.35	5.06	(b.2)	0.5
Other tax revenues	5.72	1.42	(e)	0
Share of tax revenues of GDP, %	0.71	1.74		
Share of tax revenues of total tax revenues of consolidated general government, %	1.95	4.80		
<b>Index of fiscal autonomy</b>	<b>14.47</b>	<b>17.35</b>		

Source: Authors' calculation based on the Ministry of Finance of the Republic of Croatia for data of Croatian cities and municipalities, Centre of Public Interest Advocacy – CPI Foundation (2016) for data of Bosnian and Herzegovinian cities and municipalities, and the Ministry of Finance of the Republic of Serbia for data of Serbian cities and municipalities.