Determinants of Local Revenue Mobilisation: Do Governmental Transfers and Public Investment Matter? A Case of the Western Balkan Countries

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Abstract

Local governments in the Western Balkan countries are dependent on central governments' transfers, with low fiscal autonomy and limited efforts for own-source revenue mobilisation. The paper identifies that besides central government transfers, other significant factors in determining municipal own-source revenues include central and local public investment, current expenditures, human development index, and population density. Municipal own-source revenue is adversely affected by intergovernmental transfers, implying their de-incentivising effect in collecting local revenues. Local capital expenditure is a significant and strong determinant with a higher strength than central government investments, suggesting their importance for local fiscal autonomy. The human development index as a composite measure, unlike GDP per capita, positively affects the municipal fiscal autonomy.

Keywords

local public investment, municipal own-source revenues, intergovernmental transfers, local governance, local expenditure structure

Introduction

The process of fiscal decentralisation has generated a vast array of economic debates and research. Stemming from the public finance theory and fiscal efficiency, fiscal decentralisation is far from a new concept (Buchanan, 1950; Tiebout, 1956; Musgrave, 1959; Furniss, 1974; Oates, 1993; Oates, 1999), yet it is still perceived as a 'solution' to governmental inefficiencies in providing public goods and services (Trenovski, 2022), abiding by the concept of subsidiarity.

Boye (2018), in critically reviewing the first- and second-generation fiscal federalism theories, argued that for reasons of efficiency, the higher tier of government should provide public goods and services that are non-congestible, i.e. available to all inhabitants, while lower-level government, for the same efficiency reason, should provide the specific local services that bring benefit for local consumers – citizens. In those situations, when positive externalities are generated, subsidies and/or grants internalise the benefits (Oates, 1972). Thus, McLure (2001) points to the so-called 'tax assignment problem', of which government tier should cover what tax powers. As Musgrave (1959) suggests, the redistribution of income is assigned to the first government tier; consequently, the corporate taxes and progressive personal income taxes, as the main instruments for revenue redistribution, are assigned to the highest governmental level, while the taxes with little or no impact on macroeconomic stability are to be assigned to the sub-state lower governmental level(s).

The second generation of fiscal federalism theory maps a new direction by emphasising the subnational governments' reliance on their own source revenues (OSR), for their functioning. Thus, the higher-tiered government should refrain from interfering in both taxing and spending decisions, while the fiscal interventions policy instruments from the central governments inhibit the development of a competitive and efficient economy. These interventions, termed ‘soft budget constraints’, are causing sub-national governments to spend excessively and exert continuous dependence on the ‘centre’ for more support (e.g. McKinnon & Nechyba, 1997). Kornai (1980; 1986) explained the concept of ‘soft budget constraint’ to mean the practice whereby public enterprises/local government units perpetually generate losses and are always ‘bailed out’ through state funds, operating at chronic losses in an expectation that defines the behaviour of the top management (Kornai et al., 2003).

When sub-national local self-government is discussed, it refers to the specific institutions created by the constitution, ordinary legislation, or under executive power to provide a range of services in a minor geographical area. However, when it comes to the governance of the local units, it is a broader concept defined as the formulation and implementation of collective action at the local level (Boadway & Anwar, 2009; Papcunova et al., 2020). The structure of sub-national self-government (local and/or regional) in Europe varies among the countries, depending on the country’s constitution, historical development, size, etc. Thus, there are a variety of models and tiers of sub-national governments throughout. Within the European Union (EU), nine countries have one level of sub-national authority – self-government; twelve EU countries have two levels of sub-national authority – municipalities and regions; and the others have three levels below the national level – municipalities, regions, and another intermediary level (Halásková & Halásková, 2015).

For the countries of the Western Balkan (WB)[1], the fiscal decentralisation process is a relatively ‘new’ and ongoing concept which has undergone a series of changes from its onsets to date. Nevertheless, there are inter-country differences in the systems, services provided, and financing sources when comparing these countries’ local government units (LGUs), attesting for the heterogeneity of the region in both the setting up and the development of the fiscal decentralisation processes among these countries. The process of decentralisation among the WB countries has been initiated around the early 2000s. However, unlike for example Albania, the other ex-Yugoslav countries have had experience in a decentralised system (although in an entirely different context as well as political and governance system; see more in Nikolov, 2013). Thus, a proper comparative analysis among the Western Balkan countries poses limitations and challenges arising from these differences.

Understandably, revenue disparities among the WB countries and within the municipalities of each country are also expected. The disparities are stemming from different development levels as there are significant interregional development gaps and also from the differences in the fiscal decentralisation systems. Furthermore, not only the local level development, but the types of function delegations and capacities of the local units are varying among the countries. Thus, dissimilarities are expected when it comes to the degree of fiscal autonomy of the LGUs – the degree to which a municipality is more or less successful in collecting and generating local own-source revenues.

Regardless of the number of subnational tiers, the budget document is the most important economic instrument in fulfilling the objectives of fiscal decentralisation, via both budget spending and revenue mobilisation, in the provision of local services. The local government budget can be comprehended both from the expenditure and the revenue side, and while on side of the revenues, the municipal revenue diversification and impact is often explored, the impacts of the structures on the revenues on the expenditure structure and vice versa is less frequently discussed on a local level (Sekula & Basinska, 2016). Even more, the subject is even less explored for the Western Balkan countries, which is why the interest particularly for this specific geographical area is advisable.

The local governments of the WB countries, depending on their degree of decentralisation, are still to a large extent dependent on the ‘higher’ government tier’s transfers and grants which may contribute to the possible problems arising from ‘soft budget constraint’ (Kornai, 1986) and the fiscal responsibility of the subnational governments under the expectations of central level bailouts (see more in Crivelli, 2011), causing the distortion of the optimal composition of public spending.

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[1] In this article, Western Balkan countries refer to: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro, and Serbia.

Considering that there is a high intergovernmental transfer dependency, and limited fiscal autonomy among the WB countries, aggravated by regular occurrences of financial distress when central governments are the regular salvage points, it further increases the interest in exploring the issue. Besides, specific studies and published work on the subject of revenue and expenditure structure and their determinants are scarce for the WB region countries. Thus, we are aiming to provide more insight on the subject and fill in a gap for the countries in the region. In this paper, we explore whether the degree of fiscal autonomy of the WB municipalities, measured through their own source revenues, is affected and depends on the central government transfer revenue and the structure of the budget expenditures.

Further devolution and decentralisation of powers from the central governments to lower levels of government is another development expected to follow among the WB countries, which will simultaneously mean greater responsibility for the municipalities for direct public service provision, which, in turn, will translate into an inherent need for local budget growth. Thus, there are expectations for the pursuit of strategies for revenue diversification and increased own revenue autonomy, to be able to take on the burden of increasing public expenditures. Hence the increasing pressure for improved fiscal autonomy and better mobilisation of Own Source Revenues (OSR) among the local governments.

The primary question we explore in this research is the nature of the *relationship between the WB local government's fiscal autonomy and its expenditure structure, with a particular focus on local capital expenditure (public investment).* We are expecting that as local governments tend to be more autonomous in spending the revenues collected, they will initiate and focus the revenues on greater investment for heightening long-term local economic development. We will further explore *the degree to which the municipal own source revenues are affected by the central government transfers and central-level public investments.* We are expecting that in a situation of a 'relaxed' syndrome to OSR collection and transfer dependency, the local government's responsiveness to local needs will be weakened, and capacity for local investments is diminished, potentially leading to inefficiencies and lower accountability.

Having in mind that local expenditure structure/function delegation is inevitably affecting the local revenue mobilisation, we will further explore the effects on municipal own source revenue generation caused by current expenditure, economic output (measured through GDP per capita), and human development (measured through the human development index).

The wider purpose beyond answering the research questions is to provide insights aimed at the decentralisation subject policymakers among the WB countries as well as to motivate a systemic exploration of an assessment for the potentials, needs, and readiness for decentralisation process redesign and further development. The indications for possible stagnation of efficiency and effectiveness benefits as well as potentials for amplified fiscal autonomy of the LGUs though better local revenue mobilisation directed towards local public investments could be seen as a catalyst for enhanced local and regional development.

These questions are answered in the article by panel data analysis of annual local finances national-level data, for the period 2008–2019, covering the six Western Balkan countries. The Western Balkan six are referred to those SEE non-EU but aspiring for membership countries: Albania, North Macedonia, Serbia, Bosnia & Herzegovina, Montenegro, and Kosovo. In predicting the performance of WB countries' municipal own source revenue, we employ information on the level of local capital investment, central government investments, the size of intergovernmental transfers, current expenditures, and the national GDP as well as the human development index and population.

The paper is structured as follows – in the next section, we provide a short literature overview of the existent literature with a focus on the region, and then we proceed with an explanation of the econometric model and elaboration of regression results. Finally, the concluding remarks and implications of the findings are discussed.

Literature review

In this section, a brief overview of the related empirical literature for the topic of our interest is presented, although we must emphasise that a range of studies on a local level and encompassing more than one country (municipal indicators as a set of more countries grouped into a region) is quite scarce. Most of the studies, to our knowledge, are focused on comparison and analyses based on a selection of municipalities (or local government units) within a country or the selection of self-governance units based on a specific characteristic such as rural vs. urban, metropolitan, population size, etc.

The decentralisation process, for the achievement of fiscal autonomy of the local self-government units, is a long process that encompasses constant reinvention and alteration. The subject of fiscal autonomy and the capacity of own source mobilisation's determinants is especially relevant for developing countries including the WB as a group of countries. The WB countries (with some exceptions), came out of a different political system with experience in a decentralised system, that first went through the phase of 'centralisation'[2], to come again to the process of a 'different' type of decentralisation.

Generally, the process of leaving the centralised towards a more decentralised fiscal system is encompassed with high dependency on intergovernmental transfers is an intermediary phase that lags the fiscal independence and is a matter of negotiation between the central and local authorities (as stated by Oates, 1993). The achievement of desirable (and possibly optimal) fiscal autonomy is dependent on the underlying structural characteristics of the local units. One among the many is the comparisons of rural vs. urban (Bahl, 1999) differences, which argue that the urban areas can better achieve autonomy by relying on local taxes and thus are less reliant on intergovernmental transfers and grants. Other explored characteristics are differences and political features, geographical characteristics, population density, etc. However, it is not our focus to assess the determinants of fiscal decentralisation in general or the structural characteristics and the fiscal autonomy, but, rather, the focus is on the identification of the relationship between local fiscal autonomy and any interlinkage with revenue and expenditure structure. The special interest in the WB countries is in identifying whether the own source revenue collection of the municipalities is affected by the degree of local investments, central government investments, and intergovernmental transfers, and, additionally, whether there is any significant impact by the current expenditures, economic development, and population.

In this discussion, it is inevitable to consider the flypaper theory (Henderson, 1968; Gramlich, 1969), which suggests that intergovernmental revenue (transfers) and public spending have importance and are determinants of local capital spending. The flypaper effect holds that the stimulus effect of a dollar increase in grants on public spending is greater than that of a comparable increase in personal income (Inman, 2008). Researchers have previously linked public spending with demographics (Oates 1977, 1981); thus, an increase in personal income is associated with an increase in local government spending (as personal income increases, citizens demand a higher quality of public service, consistent with Wagner's Law).

Tiebout's hypothesis (1956) argues that households will move to areas that best maximise their preferences for a mixture of taxes and providing public services. For cities (as local governments) to remain competitive in attractive to keep the households, it is necessary to provide both public infrastructure and quality public services (Yusuf & Srithongrung, 2017). Boadu (2020) identified the flypaper effect on capital spending in selected American urban cities. He found that intergovernmental revenues are positively associated with and stimulate local capital spending per capita. Furthermore, Boadu (2020), for the selected cities, finds that there is a substitution effect between current expenditure and capital outlays. As for the population as a variable, he finds that the concentration rather than the population change affects the local capital spending per capita.

The research by Henderson (1968) and by Gramlich et al. (1978) shows that not only is public spending driven by socio-economic characteristics, but governmental grants have a large impact on spending as well. Melo (2002) uses a panel data regression method to analyse local governments

[2] Referring to the countries of former Yugoslavia after the break-down.

in Colombia and finds evidence that the flypaper effect is more pronounced as local governments increase their dependence on intergovernmental revenue. Similarly, Dahlberg et al. (2008) for Sweden find that an increase in federal grants is associated with an increase in local spending. In a research paper by Hounmenou et al. (2021) for a selection of municipalities in Benin, the authors find a positive and significant impact of own resources, state transfers, and demographic variables on the local investments' expenses; however, they also show that the central government transfers continue to play a major place in local investments' finance, even in the decentralised context.

For the selection of LSGs in Indonesia, Triyanto et al. (2017) explore fiscal decentralisation economic efficiency compared with the central government, and the effect of capital expenditure through the regional gross domestic product on the local own-source revenues. The results for this country show that regional gross domestic product has an effect on the components of local own-source revenue and that capital expenditures have an indirect effect on local own-source revenue through the regional gross domestic product. The authors used path analysis as a method for the research. Papcunova et al. (2020) note that, in the former post-communist countries, the powers of local self-government to influence their revenues are gradually increasing; however, the number of taxes that may affect regions or municipalities is declining.

For the Western Balkan, as a group of countries or a macro-region, there is evident research deficiency and scarce resource research on the subject, especially regarding more recent knowledge and information. Nevertheless, there is, to a certain degree, the availability of WB-country-specific empirical evidence for some of the countries of interest. From a descriptive aspect, the most recent OECD (2023) Sigma report provides a relevant presentation of the multi-level government systems in the Western Balkan countries and illustrates the process of development of the decentralisation processes in these countries as well as demonstrates the heterogeneity of the processes.

For the countries specifically, regarding the decentralisation process in the Western Balkans, with focus on Albania, Merkaj et al. (2017) analyse the evolution of the process and find that among other things, the hampering determinant of local government performance is the non-transparent governmental grant transfers system and the political clientelism. For the case of Serbia, Radosavljevic (2017) considers the relation between local development and decentralisation, and finds a modest positive impact of fiscal decentralisation on local economic growth in the early 2000s. Although the focus of the article is on employment, the author empirically finds that there is low positive impact of own source revenue growth and investments in Serbia, with better performance among the towns compared to the other local governments. The author's suggestions on the subject point towards the need for increased fiscal autonomy of the LGUs for improved and optimal local investment.

On the cases of Serbia and Montenegro for the period until 2014, Kmezic et al. (2017), from a legal aspect, present a research on the development of the decentralisation process, and among the abundance of findings conclude that the fiscal decentralisation in Serbia has gone through deferent stages with significant legal changes which have resulted in diminished local economic development, which, in turn, caused a restrictive approach to the local investments. On the other hand, the same authors note that the legal changes concerning fiscal decentralisation in Montenegro (primarily starting in 2009) motivated the local governments to increase their efficiency in own source revenue collection; however, at the same time, they increased the LGUs' dependency of shared taxes.

In the case of Albania, Zhllima et al. (2020), based on survey data, explore the effects of the central government grants and political affiliation, and find a dependence between the two variables. In the relatively early onset of the fiscal decentralisation in Albania, Schroeder (2007) points to the risk posed by the possible system design to discourage local governments from generating revenues from their own sources. As for North Macedonia, Nikolov (2013) in his research finds that besides other things, the municipals' own tax revenues per capita and the population density are negatively correlated with municipal efficiency. On the same subject, Trenovski et al. (2022) find that capital expenditure, municipal transparency, and the level of development are all significant determinants of municipal own source revenues in the country.

Local revenue coverage in the Western Balkan countries

Local governments of the WB countries, despite the two decades into the decentralisation process, remain financially heavily-dependent on intergovernmental transfers. Hence the moderate municipal fiscal autonomy and limited efforts for amplified own source revenue (OSR) collection and mobilisation, and performance. Based on to the NALAS observatory database local public finance data, it can be determined that local government revenues (as % of the GDP, in 2019) amount to an average of 5.4%, with a range from 3.6% in Albania to 6.5% in Montenegro, while in the SEE average is 5.9%, the EU-28 10.6% and in the OECD-35 is 15.9%. In the last decade, the local government revenues of the WB countries relative to their respective GDP indicates no increasing trend but, rather, is stagnant on the same level, even more at some points shrinks. The gap between the WB EU-aspiring member countries and the EU member states in terms of local revenue contribution is evidently significant due to both EU countries larger public sector as well as the degree of decentralised local revenues. Likewise, the OSR of the WB countries contributes to an average of 39% of their total local government revenues, ranging from the highest 66% in Montenegro to the lowest 14% in Kosovo. On a per capita level, the differences are even more evident, namely for 2019, the average among the WB six is 134 EUR ranging from lowest 43 EUR per capita in Kosovo, 72 EUR in Albania, 92 EUR in North Macedonia, 166 EUR per capita in Serbia, to 344 EUR per capita in Montenegro, while the SEE average is 172 EUR per capita. The challenges for mobilising local own source revenues are numerous ranging from frequent regulatory changes, outdated fiscal registers, to weak tax compliance and enforcement. The remaining ‘gap’ of financing needs is ‘filled in’ with central government transfers, through various forms either through shared taxes, general grants, block grants, and investment grants. The size of the per capita transfers varies for each country depending on the municipal legally-assigned responsibilities. Furthermore, in a context of their autonomous decision-making for public expenditure, the municipalities have discretion over the use of their own source revenues and some discretion over assigned revenues. However, they have much less or no discretion over the use of revenues transferred from higher-tier government.

The structure of the OSR of the municipalities indicates that these are particularly dependent on the property taxes revenues which are relatively stable, constant, and repetitive, while also there is the most visible tax source for financing local public service provisions. The contribution of the property taxes within the total local revenues is on average 10.5% (WB); it ranges from the lowest at 5% in Kosovo, to the highest at 19.1% in Montenegro (for 2019) and has generally seen significant improvements in their share within the OSR in the last decade among all six countries.

Data and research methodology

To answer the research questions on the nature of the relationship between the local governments’ fiscal autonomy and their expenditure structure particularly of local capital investments and the effects of governmental transfers, a panel regression method is used. The panel regression model is used as is allows for cross-sectional and time series data to determine correlations and predict trends of determinants. The general form of the regression takes the following form:

$$Y_{it} = \alpha + \beta X_{it} = u_i + \lambda_t + v_{it}$$

where u_i accounts for the unobserved individual effects (as it is presumed that units are not homogenised in reality) with $i = 1,2,3\ldots N$, and the λ_t is the unobserved time-specific effect where $t = 1,2,3\ldots T$. These parameters with the random error of v_{it} can be represented with innovation ϵ. Depending on the previously described, the general effects of the panel regression model can be represented as

$$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it}$$

Y_{it} – the dependent variable
α – constant intercept
β – is the (kx1) matrix of coefficients

X_{it} – time-variant (1xk) regressor vector
ε_{it} – the error term where $\epsilon \sim N(0, \sigma^2)$

The panel data used in the regression is annual data for the period of 2006–2019 for the six Western Balkan countries (North Macedonia, Serbia, Bosnia & Hercegovina, Kosovo, Montenegro, and Albania). The data is retrieved from the datasets available from the observatory database for local public finance of the Network of Associations of Local Authorities of South East Europe (NALAS)[3]. The data compilation, selection, and time period are based on the availability and comparability of data from a single source.

The data for the local governments is expressed on a per capita basis for the variables total revenues, as well the further decomposed revenues into own revenues, shared taxes, and intergovernmental transfers (which are further disaggregated in general grants, block grants, and investment grants). The data on local expenditures is as well expressed in per capita basis as current expenditures on the aggregate level as well as disaggregated in categories: salaries and wages, goods and services, and other expenditures, while capital expenditures are on aggregate per capita level. For consistency, the same database is used to extract the number of total population and municipal population density.

Other variables used in the model from other data sources are GDP per capita which is extracted from the World Bank database, while public investment on a central level is derived from the IMF's Investment and capital stock database, and Human development index is taken from the UNDP adequate index database. As for some variables, there is missing data for specific years, so the panel is unbalanced. The missing data is specifically for the case of Kosovo concerning general government public investment as well as the human development index, which is not available.

Model specification and estimation

We design a model specification to estimate the significance and strengths of the determinants of own source revenues (OSR) as dependant variable in relation with a set of independent variables as potential predictor variables as listed below.

With the model, we are interested in predicting the performance of WB municipalities in generating own source revenue, using the dependant variables on *local capital investment, central government investments, size of intergovernmental transfers, current expenditures and GDP, human development index,* and *population*. The purpose of generating a regression with this specification is to see the effect of the identified independent variables on the own source revenue generation. The dependent variable for this model is per capita average *own-source revenue in EUR* (OSR), extracted from the municipal budgets per country on the national level in the concerning period. The independent variables with the expectation of a relation with the dependant variables are as follows. A variable of special interest is the size of the *municipal per capita capital investments*, expressed as the average on a country level (CAPEX). It is expected that within the model, municipal fiscal autonomy (OSR) will have a positive relationship with the size of local capital investment, as it is anticipated that the degree of effort for local investment depends on the degree of revenues which are at the municipal's own disposal. Another related variable is the size of *central level investments*, and it is anticipated that greater central government's public investment expenditure (PIGG) is complementary and further boosts local OSR via the country's economic output.

As the municipalities in the countries are beneficiaries of rather significant intergovernmental transfers (including conditional, unconditional, and investment grants), the average per capita *intergovernmental revenue* (IGT) as an independent variable is likewise expected to have a positive relationship with the municipal own-source revenues. If the case is the opposite and there is a negative relationship, it may be argued that the dependency on the central government transfers diminishes the efforts of local governments to efficiently collect their local revenues as well as

[3] The NALAS database availability of local finance data for WB countries is dated until 2019; furthermore, to explore the trend and real effects among the variables of interest, it is better that the period of the COVID-19 pandemic and today's energy-economic crisis with significant (temporary) distortions in the variables of interest are not included.

reduces their fiscal autonomy by increased dependency and reliance on the central government (flypaper effect).

Recurrent per capita expenditure as an independent variable is also of interest (CEX), as it is the major component of municipal's spending and it is considered to be in contrast with municipal capital expenditure. However, within its structure, it also typically encompasses maintenance and operations costs for the existing capital stock. It is expected that municipal fiscal autonomy (OSR) will have the same sign as the CAPEX variable sign, i.e. will complement and contribute to municipal autonomy.

Lastly, it is expected that the higher (increase in) output – both the economic output measured through GDP per capita and the human development output measured through the human development index – will have a positive effect on the municipal own revenue.

In order to test the hypothesis that municipal fiscal autonomy depends on the revenues sources, the structure of the budget expenditures, and development level (human development index and per capita GDP), we estimate the equation in the following form:

$$OSR_{it} = \alpha + \beta_1 CAPEX_{it} + \beta_2 CEX_{it} + \beta_3 IGT_{it} + \beta_4 PIGG_{it} + \beta_5 GDP_{it} + \beta_6 HDI_{it} + \beta_7 POP_i + \varepsilon_{it}$$

After performing the necessary testing for the selection of the appropriate model (with the Breuch-Pagan test), it is decided that the POLS, no effect model is most appropriate to be used.

Table 1. Model results: dependent variable: own source revenues per capita

Variable	Coefficient	t-Statistic	Prob.
C	–422.592*** (96.326)	–4.387	0.000
Local Capital Expenditure (*per capita*)	0.670*** (0.083)	8.031	0.000
Central Government Public Investment (*per capita*)	0.064*** (0.018)	3.489	0.001
Local Current Expenditures (*per capita*)	0.461*** (0.092)	5.017	0.000
Intergovernmental Transfers (*per capita*)	–0.430*** (0.071)	–6.045	0.000
GDP (*per capita*)	–0.012*** (0.004)	–2.477	0.016
Human Development Index	866.250*** (149.476)	5.795	0.000
Population density (*sq. km*)	–2.211*** (0.183)	–12.087	0.000
R-squared	0.966		
Adjusted R-squared	0.961		
F-statistic	239.957		
Prob(F-statistic)	0.000		

Note: standard error in parenthesis; p<0.01***, p<0.5**, p<0.1*

Discussion

The results of the model specification panel regression on the WB countries' municipal OSR determinants provide insightful dependencies and implications. Firstly, there is a significant and strong association between the municipal OSR and both local capital investment and general government public investment. The municipal OSR is positively affected by the size of the public investments, at the significance of 1%. This indicates that the size of the public investments contributes considerably to the improvement of the fiscal autonomy of the municipalities. The degree of the impacts, though, is more pronounced with the local capital investments, and the increase of the locally-targeted capital investments of 1 EUR (per capita) may result in an average of an additional 0.67 EUR OSR. Furthermore, the OSR is dependent on and heightened by the central government's public investment size, with a coefficient of positive 0.06. The coefficient values demonstrate the higher significance of the locally-initiated capital investments since they are theoretically more responsive to specific local needs. This affiliation implies that locally-driven capital investments are important in contributing to the fiscal independence of the municipalities, with a more pronounced effect compared to the central governments' capital investments. Both variables for public investments affecting the OSR positively imply that there is complementarity. Comparing the magnitude of local capital investment and central governments' investments effect might be an additional argument for the need of proceeding with an advanced decentralisation process in the WB. The two-decade process in its current form may have been exhausted; it might be ready for reinvention and the LGUs can be prepared for new task assignments, and for more amplified fiscal autonomy. In addition, it can be argued that the increased efforts for increased and for more efficient local public investments can contribute positively to potentially reducing the regional development disparity gaps which are widely present in the region.

Secondly, the coefficient of the intergovernmental transfers has a negative sign and is statistically-significant, indicating the strong negative association with municipal OSR. As previously explained, the transfers from the central government constitute a large source of revenue for the local governments in the WB. The negative coefficient of 0.43 indicates that an increase of 1 EUR transfer from the central government will reduce the municipal own source revenues by 0.43 EUR. This suggests that the intergovernmental transfers significantly disincentivise local resource mobilisation and weaken the LGUs efforts to generate their potential local revenues. This goes in line with the growing literature that highlights the potential *disincentivising effect of the government transfers on local revenue mobilisation.* Consequently, discouragement or idleness of local government to collect their own revenue may adversely affect their financial autonomy and, inevitably, the accountability towards the citizens. The negative relation based on the high transfer dependency is likely to induce a lack of fiscal discipline among local governments as well. Although intergovernmental transfers from the upper tier are often linked to specific projects (limiting the decision-making responsibilities of local authorities), it has been discussed that they can stimulate local revenue mobilisation in cases when the distributional formula encompasses the local tax effort as a determinant of the amount of the transfers.

Likewise, the association of the OSR with the per capita *current expenditure* shows a positive relation, with a coefficient of 0.46. The recurrent expenditure is the main portion of the local budget to ensure the operations and provision of local services. The generalisation of the derived conclusion should be considered with care, as local (municipal) differences and characteristics will certainly have an impact, depending on the local context within the country and even more among LGUs. Although on average there is a positive relationship between municipal OSR and their recurrent expenditures, in order to get a closer view, we separately modelled the current municipal operating expenditures on a disaggregated level with wages and salaries, goods & services, and other current expenditures. In the disaggregated sub-model, the empirical results indicate that all three current expenditure categories have a positive effect; however, solely the goods & services portion has the statistically-significant effect on OSR (at 5% significance level). The goods and service expenditures typically encompass substantial expenditures for maintenance costs of already existing local infrastructure stock; therefore, it could be argued that it is closely related to the local investments and the importance of maintaining the quality of existing public capital stock.

Finally, there are two opposite correlations derived from the two different development variables. While the human development index is a positively and statistically-significantly associated predictor of municipal OSR, the GDP per capita is negatively associated with the OSR. The positive association between the human development index and own revenues per capita is suggesting that the development of the country solely measured by the economic growth (GDP) does not completely cover the relevance of human capabilities as critical criteria for assessing the development of a country. The human development index encompasses diverse aspects, including standard of living, health, and knowledge. The positive sign of the coefficient indicates the importance of the overall human development and the necessary investments in the overall human development as a determining factor for providing an opportunity for enhanced local revenue mobilisation, unlike exclusively GDP per capita, which has limitations. Furthermore, as we are limited by not having a local economic output measure, it may be inferred that the result may be affected by the regional and local development imbalances, as the economic output (GDP) of the WB countries is largely unbalanced and centralised around specific sectors and in the urban centres, thus reducing its importance in strengthening fiscal autonomy (OSR) of the local governments.

Lastly, population density, although expected to have a positive coefficient sign – as that greater density is likely to provide a larger tax base for the local taxes collection – in this specification is negative, implying a negative association with the OSR (for the given period). This might be different in specific ranges of possible 'optimal' density and differences in demographic characteristics of the municipalities; thus, for a more relevant conclusion, more in-depth density ranges per municipality should be explored.

Conclusions

This paper examines the municipal fiscal autonomy determinants measured through the local government's own revenues for the period 2008 to 2019 for six Western Balkan countries. We particularly focus on the relationship between own source revenue generation on the one hand and the intergovernmental transfers and local capital expenditure on the other, while also examining other variables such as central government investments, municipal current expenditure, and the level of development.

The paper examines the channels affecting municipal own revenues towards enhanced local revenue mobilisation. We are particularly considering intergovernmental transfers, as significant local funding source as well as local capital investment as essential expenditures for development which have been frequently and repeatedly subject to budget cuts among the WB countries. To the best of our knowledge, this paper is the first that considers in unison all WB local governments, in examining fiscal autonomy determinants by looking into the transfers and the public investments.

One of the principal findings of this article is that in the current local financing set-up, the *OSR in the WB countries is adversely affected by the intergovernmental transfers while significantly positively affected by local capital investment.* The findings are in line with the theory that local governments which are less reliant on governmental transfers can achieve better autonomy, thus contributing more effectively to development. The interaction of the regression coefficients of the intergovernmental transfers and municipal own revenues implies a possible existence of a flypaper effect consistent with the fiscal decentralisation theory and empirical evidence.

Namely, fiscal autonomy of the municipalities in the WB – measured through the size of their own source revenues per capita – is supported by local investments. The empirical evidence for these countries' local governments confirms that local investments have both statistically- and sizeably-significant effects. This may be explained by the channel of effect that capital investments contribute to improving the living circumstances and quality of the citizens as well as the advancement of the business environment, which ultimately has a positive effect on increasing the tax base and local tax revenue sources. The significance of the public investments from the central governments as well positively affects own sources, but with lesser effect compared to the local capital investment, implying the significance of the locally-designed investments which are specifically responding to the needs of the community. This goes in line with the subsidiarity principle as one of the principles of decentralisation as a process. Thus, the above implies that the local governments of the WB countries should increase their vital efforts to mobilise local revenues, since the ability to invest in local capital hinges on the mobilisation of their local own revenues.

In the empirical analysis, we did not determine the expected 'substitution' effect of the *current municipal expenditure*; however, when disaggregated, the portion of the recurrent expenditure for procurement of goods and services is the sole part of the current expenditures, which is statistically-significant, which may likely be due to the capital-related component, which is encompassing the maintenance of the capital infrastructure stock of the local governments.

The local revenue mobilisation efforts and fiscal autonomy among the WB countries are disincentivised by the reliance on the sizeable central government's transfers to the local governments.

We can argue that these may contribute to the erosion of local fiscal autonomy, since they serve as substitutes for local revenues. This finding is consistent with the theory on the concept of ‘soft budget constraint’ (Kornai, 1986), implying that local governments that are more upper-tier government dependent may define their behaviour as such. The decentralisation of the LSGUs in the WB is for most of the countries still a work in progress, as a good portion of the services is financed via fund transfers from the upper-tier government. The negative impact of the transfers on the mobilisation of local revenue confirms the disincentivising effect, as local governments are likely to be discouraged from local revenue collection and face reduced fiscal autonomy without using their full potential. Furthermore, it may perhaps be an indication that the current fiscal decentralisation set-up in these countries has exhausted its benefits and the municipalities are ready to provide additional and different local services with new levels of fiscal autonomy. This dependency may also imply and motivate further exploration of the existence of a ‘flypaper effect’, suggesting that increased transfers may lead to greater overall public spending.

Detailed determinants on a more localised and country-specific investigation of the effects may provide more specific recommendations for stimulation of local revenue mobilisation through rethinking distributional formulas for the intergovernmental transfers, often encompassing the local tax efforts as incentivising variable.

As for the degree of development, the results indicate that the *human development index* has a positive and significant effect on the fiscal autonomy of the municipalities in the WB. Thus, knowledge, living standard, and health of the citizens is a more valid and comprehensive measure when compared to the narrower measure of GDP. These findings as well go in line with the economists’ discussion of the GDP as a measure that falls short in capturing the overall well-being and welfare (for example Stiglitz et al., 2009).

The conclusions indicate the investments and state of the capital stock of the municipalities in the WB are directly related to both the fiscal autonomy and the fiscal efforts of the local administration to rise own sources, as well the overall fiscal outlook of the countries. The economic welfare of the municipality is inseparably interdependent on capital investments, as the municipalities’ own sources impact the investment outlays. Therefore, municipalities need to maximise their effort for local revenue mobilisation to sustain and improve economic growth and development.

Efforts for increasing and redesigning the fiscal decentralisation process should have a positive impact on improved local development, both from the aspect of moving to a more effective decentralisation (from deconcentration and devolution) as well as a redesign of the intergovernmental transfer models towards more conducive to more efficient and effective local development. Thus, additional research should be considered to explore further possibilities for redesigning intergovernmental transfers that are conducive and facilitate local revenue mobilisation channels through models for fiscal stimulus, improved public services, and better tax enforcement efforts.

Without a doubt, other determinants, not explored in this article, may also affect the OSR mobilisation, e.g. geography, education, unemployment, population, economic (in)activity, political variables, and an array of other determinants. Nonetheless, the specificities of each country and the heterogeneity of the municipalities within the countries could be further explored and determine specific features, opening the discussion for the decentralisation evolution, which calls for careful considerations in approaching the issue for allowing an efficient and accountable provision of local public goods and services. Considering that the empirical literature in this area for the specific geographical region is scarce, this research paper can be a foundation or incentive for other research aspects that may cover a deeper and wider scope of determinants specific to countries, groups of comparable local government units, or another form of clustering. The availability of more specific and publicly-available comparable data on a municipal level in the region will contribute significantly to the improvement of future research, which is currently a limitation.

Reference List

Boadu, B. (2020). An Analysis of the Flypaper and Fungibility Effects of Intergovernmental Revenue on Municipal Operating and Capital Budgets. PhD diss. The University of North Texas. Available at https://

www.econbiz.de/Record/impact-of-own-resources-on-municipalities-investments-expenditures-in-benin-hounmenou-bernard/10012638533 (accessed: 15.06.2023)
Boadway, R. W., & Anwar, S. (2009). *Fiscal Federalism: Principles and Practice of Multiorder Governance*. Cambridge University Press.
Boye, E. J. (2018). The Second-Generation Theory of Fiscal Federalism: A Critical Evaluation. *Perspectives on Federalism*, *10*, 222–245.
Buchanan, J. M. (1950). Federalism and Fiscal Equity. *The American Economic Review*, 40(4), 583-–599. http://doi.org/10.2307/1808426
Courant, P. N., Gramlich, E. M., & Rubinfeld, D. L. (1978). *The stimulative effects of intergovernmental grants: Or why money sticks where it hits*. University of Michigan, Institute of Public Policy Studies.
Crivelli, E., (2011). Subnational Fiscal Behavior under the Expectation of Federal Bailouts. *Journal of Economic Policy Reform*, *14*(1).
Dahlberg, M., Mörk, E., Rattsø, J., & Ågren, H. (2008). Using a discontinuous grant rule to identify the effect of grants on local taxes and spending. *Journal of Public Economics*, *92*(12), 2320–2335.
Furniss, N. (1974). The Practical Significance of Decentralisation. *The Journal of Politics*, *36*(4), 958–982. http://doi.org//10.2307/2129402.
Gramlich, E. (1969). State and Local Governments and their Budget Constraint. *International Economic Review*, *10* (June), 163–182.
Halásková, M. & Halásková, R. (2015). The Structure and Financial Dimensions of Public Administration in EU Countries. *Transylvanian Review of Administrative Sciences*, *11*, 41–57
Henderson, J. M. (1968). Local Government Expenditures: a Social Welfare Analysis. *The Review of Economics of Statistics*, 156–163.
Inman, R. P. (2008). The flypaper effect. National Bureau of Economic Research. No. w14579 International Monetary Fund, IMF Data, https://data.imf.org/.
Kmezic, S., Kaludjerovic, J., Jocovic, M., & Djulic, K. (2016). Fiscal Decentralisation and Local Government Financing in Montenegro from 2002 to 2015. *Lex Localis – Journal of Local Self-Government*, 14(3), 431–450.
Kornai J. (1980). *Economics of Shortage*. North-Holland Publishers.
Kornai, J. (1986). The soft budget constraint. *Kyklos*, *39*, 3–30.
Kornai, J., Maskin, E., & Roland, G. (2003). Understanding the Soft Budget Constraint. *Journal of Economic Literature*, *41*(4), 1095–1136. http://www.jstor.org/stable/3217457
McLure, C. E. (2001). The Tax Assignment Problem: Ruminations on How Theory and Practise Depend on History. *National Tax Journal*, 54, 339–44.
Melo, L. (2002). The flypaper effect under different institutional contexts: The Colombian case. *Public Choice*, *111*(3), 317–334.
Merkaj, E., Zhllima, E., & Imami, D. (2017). Fiscal Decentralization in Albania: Trends and Challenges at the Dawn of Territorial Reform. *Journal of Balkan and Near Eastern Studies*, *19*(6), 684–699. http://dx.doi.org/10.1080/19448953.2017.132889
Musgrave, R. M. (1959). *The Theory of Public Finance*. McGraw-Hill.
NALAS (2020). *Statistical Brief: Local Government Finance Indicators in South East Europe*. Available at: http://www.nalas.eu/wp-content/uploads/2022/12/NALAS-Statistical-Brief-Local-Government-Finance-Indicators-in-South-East-Europe-second-edition.pdf (accessed: 15.07.2023).
Network of Associations of Local Authorities of Southeast Europe, Local Government Finance Indicators, http://www.nalas.eu/.
Nikolov, M. (2013). *The measurement and impact of fiscal decentralization the case of Macedonia*. PhD diss. University of Ljubljana, http://www.cek.ef.uni-lj.si/doktor/nikolov.pdf
Oates, W. E. (1991). On the Nature and Measurement of Fiscal Illusion: A Survey. In W. E. Oates (Ed.), *Studies in Fiscal Federalism* (pp. 431–448). Edward Elgar..
Oates, W. E. (1972). *Fiscal Federalism*. Edward Elgar Publishing.
Oates, W. E. (1993). Fiscal Decentralisation and Economic Development. *National Tax Journal*, *46*(2), 237–243. http://doi.org/10.2307/41789013
Oates, W. E. (1999). An Essay on Fiscal Federalism. *Journal of Economic Literature*, *37*(3), 1120–1149. doi: 10.2307/2564874
OECD (2023). Subnational government in the Western Balkans. Sigma Paper no.66. ISSN: 20786581. https://doi.org/10.1787/20786581
Papcunová, V., Hudáková, J., Štubňová, M., & Urbaníková, M. (2020). Revenues of Municipalities as a Tool of Local Self-Government Development (Comparative Study). *Administrative Sciences*, *10*(4), 101. http://doi.org/0.3390/admsci10040101

Radosavljevic, G. (2017). Fiscal Decentralization and Local Economic Growth in Serbia. *Ekonomika preduzeća* 65(7–8), 453–467. doi: 10.5937/EKOPRE1708453R
Schroeder, L. (2007). Unconditional Intergovernmental Transfers to Finance Decentralization in Albania. *Public Budgeting & Finance*, *27*(2), 50–67. http://doi.org/10.1111/j.1540-5850.2007.00874.x
Sekuła, A., & Basińska, B. (2016). More freedom – more investments. The relationship between the extent of fiscal autonomy with respect to own revenues and investment expenditures of Polish communes and cities with county rights. *Argumenta Oeconomica*, *1*(36), 241–260. https://doi.org/10.15611/aoe.2016.1.10
Stiglitz, J. E., Sen, A., & Fitoussi, J. (2009). *The measurement of economic performance and social progress revisited: Reflections and Overview*. Sciences Po publications 2009-33, Sciences Po.
Tiebout, C. M. (1956). A Pure Theory of Local Expenditures. *Journal of Political Economy*, *64*(5), 416–424. http://doi.org/10.1086/257839
Trenovski, B., Merdzan, G., & Peovski, P. (2022). Municipal Revenue Determinants in a South-Eastern European Economy: Evidence from North Macedonia. Studia Regionalne i Lokalne *1*(87), 22–36. http://doi.org/ 10.7366/1509499518702
Triyanto, D., Wahyudi, S. T., & Ananda, C. F. (2017). The Effect of Capital Expenditure on Local Revenue: Study In East Java Indonesia. *Journal Ekonomi Kuantitatif Terapan.* http://doi.org/10.24843/jekt.2017.v10.i02.p0
United Nations Development Programme, Human Development Reports, Human Development Index, https://hdr.undp.org/.
World Bank, World Development Indicators, https://data.worldbank.org/.
Zhllima, E., Merkaj, E., Imami, D., & Rama, K. 2020. Local Government Access to Funds—It Is about Who Your Friends and Party Are. *Communist and Post-Communist Studies*, *53*(1), 135–151. https://doi.org/10.1525/cpcs.2020.53.1.135