



DOES FISCAL DECENTRALIZATION INFLUENCE PUBLIC FINANCE DEBT? A PANEL REGRESSION ANALYSIS OF THE OECD COUNTRIES

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Submitted: 22 March 2023

Revised: 10 June 2023

Accepted: 19 June 2023

Peer-review under responsibility of 8th ASIA International Conference (KLCC, Malaysia) Scientific Committee

<http://connectingasia.org/scientific-committee/>

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Office # 6, First Floor, A & K Plaza, Near D Watson, F-10 Markaz, Islamabad, Pakistan,

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ABSTRACT

Fiscal decentralization has recently gained popularity throughout the world. This study examines how revenue decentralization influences subnational budgetary balances and how it affects the general government debt in the OECD countries. We applied panel regression analysis to an annual panel dataset that includes data from 23 countries from 1990 to 2020. Then, we explore the relationship between fiscal/revenue autonomy and public finance debt thus budgetary balances at the SNG level. Our empirical findings suggest that higher levels of SNG budget discipline are associated with greater revenue autonomy. The findings also suggest that general governments should consider delegating greater fiscal autonomy to SNGs to achieve better fiscal outcomes, including lower levels of general government public debt. This information could be useful for policymakers who are looking to implement sustainable fiscal stewardship.

Keywords: *Fiscal Decentralization; Budget Balance; Public Debt; OECD*

RESEARCH HIGHLIGHTS

1. This study provides evidence that higher levels of SNG budget discipline are associated with greater fiscal autonomy. The findings suggest that general governments should consider delegating greater fiscal autonomy to SNGs to achieve better fiscal outcomes, including lower levels of general government public debt. This information could be useful for policymakers in OECD countries who are looking to implement sustainable fiscal stewardship.
2. Economic challenges can also pose a threat to SNG's fiscal sustainability. Economic shocks and downturns can affect revenue streams and increase public debt. The benefits of higher revenue decentralization must be carefully considered with the extent of tax competition and variations in fiscal policies between subnational governments, both among governments at the same level and between different levels of government.
3. Hence, policymakers should carefully consider the fiscal autonomy they grant to SNGs according to the circumstances of the respective country and the wider constellation of political, economic, and financial institutions for upholding strong fiscal policies.

Research Objectives

The main focus of this study is to investigate how SNG revenue autonomy influences subnational budgetary balances and its effect on the general government debt. This emphasis stems from the finding that SNG expenditures are typically partially supported by funds from the central government instead of through a complete local revenue autonomy (Stein, 1999). This situation is known as partial fiscal decentralization (Brueckner, 2004; Blöchliger & Petzold 2009; Borge et al. 2012). To fill the above-defined gap, this research aims to explore how SNG revenue autonomy influences subnational budgetary balances and its effect on the general government debt in the OECD countries. To achieve this, we expand the conversation in three different ways.

We begin by examining a panel dataset of 23 OECD states from 1990 to 2020. Our period is much longer than previous research, which results in a significantly higher sample size for us. Second, we take into consideration SNG's level of control over its fiscal policies. Finally, we follow Rodden (2002) by examining general government (GG) debt results in conjunction with SNG budget balances. Some writers utilize this justification to use general government data as a basis for SNG revenue outcomes.

Methodology

To conduct an empirical analysis of the relationship between 'fiscal decentralization and public finance debt', we created a new data set that includes data from 23 OECD nations between 1990 and 2020. We implement two of Stegarescu's revenue autonomy measures.

1st Rev. Autonomy - first-degree revenue autonomy includes only tax revenues for which the SNG decides both the tax rate and tax base (Asatryan, & Feld, 2011).

2nd Rev. Autonomy - consider revenues accrued from shared taxes.

Our econometric model for panel regression analysis will incorporate numerous control variables, drawn from various previously reported determinants of public finance, debt, and deficits. These control variables are essential to ensure the validity of our findings. We provide a concise summary of the specific data sources, definitions of all control variables, and descriptive statistics for all variables used in our study.

Model Specification

Our benchmark specification has the following format using the empirical model specification below:

$$\Delta SNGbalance_{it} = \alpha_1 \Delta RevAutonomy_{it} + \alpha_2 \Delta ControlVar_{it} + \mu_i + \eta_t + \varepsilon_{it} \quad (1)$$

The dependent variable in our study is the change in SNG budget balance, measured as a percentage of total revenue, for country *i* at time *t*. We primarily measure the revenue autonomy ($RevAutonomy_{i,t}$) using Stegarescu's revenue autonomy of the first degree. However, we also provide some alternative estimates where $RevAutonomy_{i,t}$ is measured using Stegarescu's revenue autonomy of the second degree. Since these measures are strongly correlated, we include them separately in our analysis.

Results

To analyze initial differences, this choice is based on the results of the Levin Lin-Chu panel unit root test (Levin et al., 2002), which revealed that both measures of SNG revenue autonomy (1st and 2nd-degree measures) and SNG budget balances exhibit a significant degree of inertia (Asatryan, & Feld, 2011). The test findings that while we can reject the null hypothesis of no panel unit root for the first and second differences of these variables, we cannot reject it for the three important levels of these variables.

Furthermore, using such annual findings raises the possibility that they could be tainted by short-term deviations, intertemporal tax or expenditure softening, and countercyclical budgetary policies (Rodden, 2002). To account for this, we estimate our model based on a

5-year average in the same way as De Mello (2000). Clearly, non-stationarity in levels since it shows no problem in such our models' framework. As a result, we found the dependent variable in our third and final Model 3 to be changing in the general government debt in percentage.

Findings

Subnational Government Budget Balance

Our research findings indicate a strong positive correlation between SNG budget balances and the level of SNG revenue autonomy. When we broaden the definition of SNG revenue autonomy to include shared revenues between the general and subnational levels, we observe a similar positive relationship. Model 2 confirms that a higher degree of SNG revenue autonomy is associated with greater budget balances (Asatryan, & Feld, 2011). This implies that subnational governments maintain a satisfactory budget surplus (Van Rompuy, 2016).

General Government Debt

our estimate of the autonomy of SNG revenue continues to be statistically insignificant. This shows that using the GG budget balance GG debt as the only measure of SNG fiscal balances is improper. Doing so results in false conclusions about the impact accrued revenue at the local level has on local government revenue outcomes.

Reverse Causality of Revenue Autonomy Test

There is a noticeable upward trend in the degree of subnational government (SNG) fiscal autonomy during the three to five years following positive SNG budget balances, with incremental steps ranging from 0.082 to 0.121 on a five-point scale. However, after SNG budget deficits, the degree of fiscal autonomy appears to remain constant, with reported values of 0.013 and 0.038 being statistically insignificant. As a result, we are unable to confirm a downward trend after the SNG budget balances. It might be too challenging for GG to reduce the autonomy of SNG to collect its own revenue after it has been granted. Thus, these findings only partially support the claim that general governments choose to be autonomous regarding SNG revenue depending on their budgetary history.

Acknowledgement

This work was supported by the Student Grant Competition of the University of Pardubice SGS_2023_ project No. SG431012

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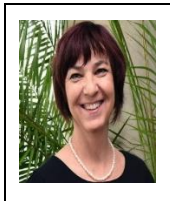
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Author's Biography



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