Budget Sustainability of Municipalities and Local Government Units – The Czech Republic Study

RICHARD POSPISIL
Department of Applied Economics
Palacky University of Olomouc
CZECH REPUBLIC
richard.pospisil@upol.cz

Abstract: *Public economics examines the influence of the state on economic equality and efficiency, and on conduction of business entities in connection with the various tax systems and individual behavior in private consumption. To manage the public economy is thorough knowledge of the real decision-making and allocation mechanisms. From a budgetary perspective, the public economy in the Czech Republic is characterized mainly by the state budget, 6,249 municipal budgets and 14 budgets of local government units. These all units are together subject to annual statutory audit, which mainly represents the analysis of the system of the Audit informative and monitoring indicators (ASIMI). The paper analyzes the outcome of the audit with the use of absolute and relative indicators and suggests possible changes and consolidation of municipal and local government budgets in the Czech Republic.*

Keywords: *municipality, local government unit, public budget, debt, GDP*

1. Introduction

The public sector is part of the national economy, whose main area of interest is to carry out a public service, who are funded from public funds as well as are managed and administered in public administration. Decisions within public sector are made on public option and are subject to public control[1]. From a material standpoint, the issue of control of public administration is more difficult than controlling the business sector of the national economy, and moreover, is subject to the principles of publicity, the principles associated with the obligation to give public entities the requesting information[2]. Public sector represents one of the hallmarks of public administration and its name is derived from the fact that it is implemented in the public interest[3].

By the end of 2016 there is a total of 6,249 municipalities and 14 Local Government Units (LGU) in the Czech Republic. The task of each municipality is to allocate sufficient funds to finance the activities that the municipality has in its scope and activities, as well as those which are transmitted by the state[4]. Municipalities and LGU seek comprehensive development of its territory and ensure the needs of its citizens through public goods and services.

On July 1st 2004 came into effect law No. 420/2004 Call., on the Act on the audit of municipalities and LGU, where articles 1-9 of § 4 oblige the rule to provide (till 30th June of current year) the audit management for the past year. The audit shall be conducted in accordance with law No. 93/2009 Coll., on Auditors and the International Auditing Standards and related application clauses of the Czech Chamber of Auditors.

2. Objectives and methods

For the preparation and fair presentation of financial statements in accordance with accounting standards of the entity, there are data sources obtained from the Czech Statistical Institute and the Czech Ministry of Finance. These data were analyzed using both the absolute and relative methods of managerial accounting. Based on these data and analysis the main objective of the paper is to evaluate the main results of audit of municipalities and LGU in the Czech Republic and determine possible directions of its future reform. Part of this responsibility is designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due

[1] VOLEK, T. (2005) *Audit of cooperatives and municipalities*, Prague, p. 4.
[2] BECKER, G., S., MURPHY, K., M., WERNING, I. (2005) *The Equilibrium Distribution of Income and the Market for Status*, p. 290.
[3] BARRO, R., J. (2014) *Human Capital and Growth*, p. 380.
[4] REKTORIK, J., SELESOVSKY, J. (1999) *Strategy of development od municipalities and local government units and their organizations*, p. 37.

to fraud or error, selecting and applying appropriate accounting policies and making reasonable accounting estimates[5].

3. Principles of budget survey

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks that the financial statements contain material misstatements due to fraud or error[6] . When assessing these risks, the auditor considers internal control relevant to the preparation and fair presentation of the financial statements. The aim of the assessment of internal controls is to propose appropriate auditing procedures, not to comment on the effectiveness of internal controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management as well as evaluating the overall financial statement presentation.

The auditor shall, in accordance with these regulations, to comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement[7].

The role of the auditor is to issue the audit opinion on the financial statements.

Data review on the annual management of municipalities and LGU, which forms part of the final account are based on law No. 420/2004 Call, § 2, article 1-2:

a. the income and expenditure of the budget, including cash transactions relating to budget funds,
b. financial transactions related to the creation and use of monetary funds,
c. the costs and benefits of business,
d. cash transactions related to pooled funds expended under an agreement between two or more municipalities or LGU or under contract with other legal entities or individuals,
e. financial transactions related to foreign sources within the meaning of the legislation on accounting,
f. management and disposal of funds provided from the National Fund and other funds from abroad provided under international treaties,
g. the billing and settlement of financial transactions to the state budget, the municipality and LGU budgets other budgets, state funds and of other persons.

The further audit and examination include:

a. the trading and management of property owned by territorial unit,
b. the trading and management of state assets under the management of a territorial unit,
c. placing and execution of public contracts,
d. the status of obligations and claims and their trading,
e. liability for the obligations of individuals and legal entities,
f. pledging of movable and immovable assets in favor of third parties,
g. the establishment of easements on the property of a territorial unit,
h. accounting of municipalities and LGU.

Subject of the review referred to in § 2 are audited in terms of:

a) the compliance with obligations under special regulations, especially regulations on financial management of municipalities and LGU on the management of their assets, accounting and on remuneration,
b) the compliance of the management of funds in comparison with the budget,
c) the compliance with the purpose of a received grant or a refundable financial assistance and the conditions of their use,
d) substantive and formal correctness of documents examined transactions.

[5] POSPISIL, R. (2013) *Public economics – present and perspective*, p. 148.
[6] KRUGMAN, P., EGGERTSSON, G., B. (2012) *Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach*, p. 55.
[7] LUCAS, R. E., MOLL, B. (2014) *Knowledge Growth and the Allocation of Time*, p. 17.

Financial management in the context of this paper is characterized by basic financial indicators and the relationships between them as the following (including the types of financial documents where the indicators can be found). Table 1 shows the list of used and analyzed indicators of municipal and LGU budgets in the Czech Republic at present.

Table 1: Analyzed indicators of municipalities and LGU

Municipality profile	Balance sheet	Budget
Identification number	Fixed assets	Tax revenues
Number of inhabitants	Current assets	Non-tax revenues
Performs state administration or not	Total assets	Capital revenues
	Total current accounts	Accepted transfers
	Own sources	Total revenues
	External sources	Current expenditures
	Total liabilities	Capital expenditures
		Total expenditures
		Annual budget balance

Source: own processing

For analyzing the financial management of municipalities, auditors use basic financial analysis ratios, such as the following balance sheet indicators:

Fixed assets / Total assets;
Current assets / Total assets;
Own sources / Total liabilities;
External sources / Total liabilities;
Total current accounts / Total liabilities.

In additing to the indicators mentioned above, beginning from July 2004 Czech government approved municipal debt regulation through the debt service ratio (DSR). The actual formula for the calculation is:

$$DSR = \frac{\text{debt serice}}{\text{debt base}}\ x\ 100 = \frac{\text{interest + principal and bond instalment +leasing instalment}}{\text{tax revenues +nontax revenues +received transfers}} \qquad (1)$$

4. Results

The Ministry of Finance of the Czech Republic calculates the debt service ratio for each municipality and in case the ratio overruns 30 % than the minister of finance sends a letter to the municipality. The debt service ratio was first calculated in April 2004 from the 2003 data. Table 2 shows current indebtedness of municipalities in the Czech Republic in 2015 divided in different size group.

Table 2: Indebtedness of municipalities in 2015

Size group	Number of municipalities	Distribution of debt to assets ratio (%)			Distribution of debt to income ratio (%)		
		Median	75^{th} percentile	95^{th} percentile	Median	75^{th} percentile	95^{th} percentile
< 200	1456	1	4	19	7	22	110
201-500	1998	3	8	27	14	45	130

501-1000	1361	4	10	30	25	57	149
1001-5000	1161	6	10	24	32	61	134
5001-10000	141	6	11	21	35	52	104
>10000	132	7	11	17	41	57	96

Source: own processing

The municipality is required to explain within three months the reasons for this overrun and suggest measures to improve the situation[8]. At the same time the municipality submits the audit report and the multi-annual budget outlook. Then the ministry evaluates these documents together with the total debt, debt per capita, tax revenues per capita, debt in the past years, size of the municipality and its overall financial situation[9]. In case of overrun of the debt service ratio in the next year the Ministry of Finance will put the municipality on a list, which will be passed on to the grant providers (ministries or state funds). The grant providers should consider this list when providing new grants. There is no absolute prohibition of grant provision to these municipalities, but it may be a factor of grant rejection. The described procedure is effective only for a short time, however several problems arose[10]. The debt service ratio does not say much about the total indebtedness and about the ability to pay off the debt[11]. The ministry did not inform the municipalities sufficiently about the whole procedure and its goals. In our understanding the procedure should have alert both the Ministry of Finance and the particular municipality, that the debt is too high and that some measures should by applied. However many municipalities, which regularly pay off their debt, felt unfairly accused. At the same time the "debt service ratio" is not very concrete and is therefore often confused with "indebtedness".

Audit system of informative and monitoring indicators (ASIMI)

The Ministry of Finance of the Czech Republic, on the basis of Government Resolution dated November 12, 2008 no. 1395 on audit of the management of municipalities and repealing Government Resolution of 14 April 2004 no. 346 on the regulation of indebtedness of municipalities and counties through the debt service, annually performs Audit system of informative and monitoring indicators (ASIMI) for all municipalities and contributory organizations established by them and evaluate the results of the calculation, building always on data 31.12. relevant year (after final enrollment). ASIMI indicators are divided into two separated parts and are audited and evaluated all together:

Informative indicators:

a. population of the municipality,
b. total income (after consolidation),
c. interest,
d. payment of installments for bond and borrowed funds,
e. total debt service,
f. debt service indicator (%),
g. total assets,
h. liabilities,
i. balance at bank accounts in total,
j. loans and municipal bonds,
k. received repayable financial assistance and other debts,
l. total debt,
m. the debt to foreign sources (%),
n. 8-year balance,

[8] MAAYTOVA, A., PAVEL, J., OCHRANA, F. (2015) *Public finance in theory and practice*, p. 233.
[9] BARRO, R. J. (2013) *Inflation and Economic Growth*, p. 122.
[10] LUCAS, R., E., Jr. (2003) *Macroeconomic Priorities*, p. 7.
[11] LUCAS, R. E., MOLL, B. (2014) *Knowledge Growth and the Allocation of Time*, p. 18.

o. current assets,
p. current liabilities.

Monitoring indicators:

a. share of foreign sources to total assets (%),
b. total current liquidity,
c. 5-year development if indebtedness,
d. annual change of indebtedness.

The Ministry of Finance of the Czech Republic performs annually - from the submitted financial and accounting statements - calculation of ASIMI for all municipalities and evaluates the results of the calculation. Municipalities whose indicator of overall liquidity will be by 31.12. of the current year in interval <0; 1>, while the share of foreign sources to total assets will be greater than 25 %, will receive a letter from the Minister of Finance and asked for an explanation of this state and the opinion of the council of the municipality. The Ministry of Finance will, upon receipt of the municipalities concerned, inform the government of the Czech Republic on results of monitoring of municipal finances for the current year.

The Ministry of Finance also evaluates the operations of other municipalities (including their subordinate governmental organizations), with the indicator of the overall liquidity in the interval <0; 1> using the above indicators, paying attention especially to municipalities that are in this interval occurred repeatedly. Municipalities who were identified with serious problems with their solvency, will be offered assistance focused on analyzing problems arising with the draft recommendations on possible solutions. Auditing of municipal management does not require additional administrative or financial demands on budgets and run municipalities. Municipalities are required to currently send to the Ministry of Finance of the Czech Republic completed ASIMI table.

Timetable of ASIMI audit:

a. calculation of Audit system of informative and monitoring indicators (March),
b. distribution of letters of Ministry of Finance of the Czech Republic (April),
c. justification unsatisfactory status (June),
d. information for members of the government (3rd. Quarter).

In 2016 Audit of ASIMI included all 6,249 municipalities and 14 LGU. By the 31. 12. 2015 there were 176 municipalities with the indicator of the overall liquidity in the interval <0; 1> and also 226 municipalities with the share of foreign sources to total assets higher than 25 %. These two indicators all together exceeded the 28 municipalities. It is an annual fall of 2 municipalities, while 12 municipalities had exceeded those values in some previous years. The resulting values of the indicators are only indicative of the potential risk of economic problems, but it does not necessarily mean that the municipality is in a difficult financial situation. This can be assessed only after a thorough audit of the financial and accounting reports, and especially the additional documents provided by the municipalities themselves.

Based on the provided analysis, it is possible to state that:

- from the point of terms of solvency the most vulnerable municipalities are those, which were mandated contribution for breach of budgetary discipline and municipalities and those, that have made the wrong investment decisions[12],
- the greatest risks to the economic situation of municipalities is seen in non-compliance with the conditions of grant projects supported by EU funds and also from national programs. These risks arise both from errors in the preparatory and implementation phases,
- most municipalities with exceeding the given values of ASIMI, should not get into serious trouble with their solvency, because these identified risk proved only temporary,
- high insolvency risk was identified just in 2 municipalities of 6,249 total: Prameny and Turovice.

Municipalities (including their subordinate governmental organizations) reported at the end of 2015 the total debt of EUR 3,10 billion. Compared to the previous year with a decrease of 2.3 %, in absolute terms, the debt declined by EUR 71,4 million. The total volume of municipal debt includes bank loans from financial institutions, issued municipal bonds, repayable financial assistance received and other debts, incl. loans from

[12] ROGOFF, K., S., REINHART, C., M., REINHART, V., R. (2012) *Public Debt Overhangs: Advanced-Economy Episodes since 1800,* p. 29.

state funds. Table 3 shows summary data on indebtedness of municipalities in the Czech Republic in 2010-2015.

Table 3: Summary indebtedness of municipalities in the Czech Republic (billion EUR)

Variable/Year	2010	2011	2012	2013	2014	2015
Loans	2,14	2,18	2,44	2,46	2,42	2,36
Municipal bonds	0,56	0,50	0,49	0,54	0,42	0,38
Received repayable financial assistance and other debt	0,27	0,27	0,28	0,30	0,34	0,36
Total	2,97	2,95	3,21	3,30	3,18	3,10

Source: Czech Statistical Office; own processing

In the structure of the debt of municipalities have the greatest weight the long term loans, whose share during 2015 decreased by 0,1 percentage points to 76,1 %, the share of municipal bonds issued decreased by 1,0 percentage points to 12,3 % and the remaining part of the debt of municipalities (11,6 %) were consisted of repayable financial assistance and other debts. Total debt of municipalities in 2015 contributed 4 largest city of the Czech Republic by 50,4 %, the value of their debt amounted to EUR 1,55 billion.

Loans that municipalities have adopted from financial institutions, similarly to previous years, chiefly aimed at reconstruction and construction of technical infrastructure for pre-investment projects co-financed from EU funds and the regeneration and construction of housing[13]. Municipalities also used these funds for reconstruction, insulation and expansion of educational facilities, sports arenas and other public facilities[14]. These loans are characterized by relatively low interest rate and very long maturities. Debt itself cannot be evaluated negatively[15]. Without a loan or credit, many municipalities cannot fund its development (gasification, local roads, sewers, water mains, sewage, preschool and school facilities, etc.). So it depends on what municipalities can borrow, whether the loans are repaid seamlessly and how well the project is ready.

Indebtedness in 2015 was showed in 3,255 municipalities out of a total of 6,249 municipalities (52,1%). Number of municipalities that have shown indebtedness in recent years remains broadly stabilized, although in the last year there has been a slight increase (by 20 municipalities).

According to the applicable laws governing budgetary responsibility meets the 92 % of municipalities the rule on budgetary responsibility for municipalities and LGU (ie. debt to average income in last 4 years shall not exceed 60 %). According to the monitoring of municipal management for the year 2015 - which among other things monitors the level of debt and liquidity municipalities - operate with a higher degree of risk only 28 municipalities.

LGU (counties) including contributory organizations established by them, reported at the end of 2015 total debt EUR 0,943 billion. From 2014 to 2015 the value of debt fell by EUR 42 million (4,4 %). On the line of credit was recorded decrease debt by EUR 20 million. The share of loans in total debt reached up to 92,0 %. LGU did not issued any bonds in 2015. Table 4 shows summary data on indebtedness of LGU in the Czech Republic in 2010-2015.

Table 4: Summary indebtedness of LGU in the Czech Republic (million EUR)

Variable/Year	2010	2011	2012	2013	2014	2015
Loans	593	700	793	839	871	868
LGU bonds	9	14	7	26	24	5
Received repayable financial assistance and other debt	80	82	75	91	90	70
Total	682	796	875	956	985	943

Source: Czech Statistical Office; own processing

[13] REINHART, C., M., ROGOFF, K. (2010) *Growth in a Time of Debt*, p. 575.
[14] STIGLITZ, J., E. (2015) *Devolution, independence, and the optimal provision of public goods,* p. 90.
[15] STIGLITZ, J., E. (2016) *An agenda for sustainable and inclusive growth for emerging markets,* p. 707.

Some LGU continued drawdown of loans granted by the European Investment Bank, which pre-finance and co-finance massive investments in regional infrastructure. These loans are generally disbursed in several tranches with different maturities, typically in excess of 10 years. Other LGUs have taken loans mainly from the biggest Czech banks like Czech Savings Bank, Inc., which belongs to Erste Group, or Commercial Bank, Inc., which belongs to Societe Generale Group for the purpose of pre-investment of projects for the repair of roads or flood damage.

5. Conclusion

Municipal and LGU regional budgets in aggregate by the end of 2015 showed indebtedness of EUR 4,043 billion, which is by 3,0 % (EUR 122 million) more than in the previous year. The total volume of loans taken by the territorial budgets was increasing in 2015 as well (non governmental organizations) amounted to EUR 3,228 billion.(increase of 1,9 % over the previous year).

In the institutional area of public finance, the Czech Republic has been criticized for a weak budgetary framework for several years although it has always met its obligations in terms of general government sector performance over the last years. Since the termination of the excessive deficit procedure with the Czech Republic in June 2014, the medium-term budgetary objective has been met every year. A set of proposals for regulations on budgetary responsibility (a draft constitutional law on fiscal responsibility, a draft law on rules for fiscal responsibility and a draft law amending certain laws in connection with adoption of fiscal responsibility regulations) was approved by the Czech government already in February 2015, and after then it was under consideration in the Chamber of Deputies of the Parliament of the Czech Republic until October 2016.

Affiliation to the grant: *Work on this article is supported by the grant from the Faculty of Arts of Palacky University, IGA_FF_2017_011, Continuities and Discontinuities of Economy and Management in Past and Present.*

References:

[1] BARRO, R., J. (2013) Inflation and Economic Growth, *Annals of Economics and Finance,* Society for AEF, vol. 14(1), pages 121-144, May.

[2] BARRO, R., J. (2014) [Human Capital and Growth), Beþeri Sermaye ve Büyüme, *Journal of Economics and Political Economy,* KSP Journals, vol. 1(2), pages 351-358, December.

[3] BECKER, G., S., MURPHY, K., M., WERNING, I. (2005) The Equilibrium Distribution of Income and the Market for Status, *Journal of Political Economy*, University of Chicago Press, vol. 113(2), pages 282-310, April.

[4] KRUGMAN, P., EGGERTSSON, G., B. (2012) Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach, *The Quarterly Journal of Economics,* Oxford University Press, vol. 127(3), pages 1469-1513.

[5] LUCAS, R., E., MOLL, B. (2014) Knowledge Growth and the Allocation of Time, *Journal of Political Economy,* University of Chicago Press, vol. 122(1), pages 1 - 51.

[6] LUCAS, R., E., Jr. (2003) Macroeconomic Priorities, *American Economic Review,* American Economic Association, vol. 93(1), pages 1-14, March.

[7] MAAYTOVÁ, A., PAVEL, J., OCHRANA, F. (2015) *Public finance in theory and practice*, Prague: Grada.

[8] POSPISIL, R. (2013) *Public economics – present and perspective*, Prague: Professional Publishing.

[9] REINHART, C., M., ROGOFF, K., S. (2010) Growth in a Time of Debt, *American Economic Review,* American Economic Association, vol. 100(2), pages 573-78, May

[10] REKTORIK, J., SELESOVSKY, J. (1999) *Strategy of development od municipalities and local government units and their organizations*, Brno: Masaryk university.

[11] ROGOFF, K., S., REINHART, C., M., REINHART, V. R. (2012) Public Debt Overhangs: Advanced-Economy Episodes since 1800, *Journal of Economic Perspectives*, American Economic Association, vol. 26(3), pages 69-86, Summer.

[12] STIGLITZ, J., E. (2015) Devolution, independence, and the optimal provision of public goods, *Economics of Transportation*, Elsevier, vol. 4(1), pages 82-94.

[13] STIGLITZ, J. E. (2016) An agenda for sustainable and inclusive growth for emerging markets, *Journal of Policy Modeling*, Elsevier, vol. 38(4), pages 693-710.

[14] SUMMERS, L., H. (2000) International Financial Crises: Causes, Prevention, and Cures, *American Economic Review,* American Economic Association, vol. 90(2), pages 1-16, May.

[15] VOLEK, T. (2005) *Audit of cooperatives and municipaltities*, Prague: Druzstevnictvi.