

Assessment of Financial Health of Regional Capitals in the Czech Republic

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Abstract

The aim of this paper is to assess financial health of individual regional capitals of the Czech Republic by means of using two methods: method which was created by the Slovak Institute for Economic and Social Reform (INEKO) and a composite financial health indicator and later compares the results provided by these two methods. The used methods differ in the selection of input indicators. Financial health of individual regional capitals of the Czech Republic is expressed by one indicator into which partial indicators enter under both of the approaches. In case of INEKO methodology this concerns basic budget balance, debt service, total debt and cash position ratio. In the case of the composite financial health indicator, the following five groups of indicators are used to calculate the financial health of regional capitals: indebtedness, liquidity, financial management, tax and financial strength and degree of self-financing. The regional capitals with the lowest score of financial health according to both used methodologies are Olomouc regional capital and Liberec regional capital. These two capitals both have high levels of indebtedness. The weight of this indebtedness is the biggest weight among all other indicators entering into the analysis.

Keywords: Financial indicators, financial health, indebtedness

JEL Classification: H70, H72, H75

1 Introduction

Financial situation of municipalities and cities is a frequently discussed issue that is discussed both by professional public and laymen public. Municipalities' indebtedness and ability to repay their debts is particularly in the centre of attention, municipalities' financial health is closely observed respectively. According to Valach and coll. (1999) financially healthy is such undertaking that is in the given moment potentially capable to meet the objectives of its existence. A „financially healthy municipality“ is thus such a municipality that is able to generate resources for further development of its area and for meeting needs of its citizens and that does not have any problems to repay in time its existing obligations.

The concept of municipality's financial health is more frequent in foreign literature than in Czech literature. In Czech literature the concept of financial condition is more often researched into. This concept is based on the concept of financial health and it focuses mainly on financial aspects. A concrete specification (and thus the inclusion or not inclusion of other than purely financial aspects) is then based on the purpose of the financial condition assessment itself. The Canadian Institute of Chartered Accountants (CICA) defines financial condition of any municipality as financial health of this municipality measured via sustainability (evaluation of how such municipality is able to sustain existing programs and to meet existing liabilities of its creditors without increasing its debt), via flexibility (how this municipality is able to increase its financial resources in reaction to increasing requirements and this done either by increasing its revenues or by increasing its debt) and via vulnerability (to what extent such municipality becomes dependent on financial resources that are out of this municipality's control) that are assessed in the context of the overall economic and financial environment (Casal and Gómez, 2011). Similarly in the USA there are used standards defined by organization GASB (the Governmental Accounting Standards Board). This organization also defines financial condition of municipalities and it sees the financial condition not only as a municipality financial position but also as its ability to continue to provide services and to meet its obligations now as well as in the future (Dennis, 2004).

In the Czech Republic various undertakings or agencies deal with the assessment of municipalities' financial health. However, there does not exist any publicly available global evaluation of municipalities' financial health. The most familiar global evaluation is iRating of municipalities provided by the CRIF-CCB Agency - Czech Credit Bureau. This agency however publishes only summary results of this evaluation. Any detailed economic and financial situation assessment is provided to municipalities only as a commercial product. Similar situation is with ratings elaborated by other rating agencies. Agency CRIF-CCB has a new feature – web application

(CRIF-CCB, 2017). This application makes it possible to get a general overview of financial condition of a concrete municipality and provide comparison of such municipality with other municipalities of similar size. Monitoring of Municipal Financial Management provided by the Ministry of Finance can be considered as a sort of observation of municipalities' financial health. The role of this monitoring is not however to evaluate financial health of municipalities but only to alert those municipalities that have reached critical values of the pre-defined monitoring indicators (Ministry of Finance of the Czech Republic, 2017). In Slovakia, on the other hand, there already exist publicly available summary indicators of financial health of municipalities and of regional capitals. The Slovak Institute for Economic and Social Reform (INEKO) created this methodology for financial health calculation. INEKO calculates, based on publicly available data resources, aggregate indicator of financial health for any individual municipality. On the other hand, there also exist other methodologies for the calculation of an aggregate financial health indicator that can be used.

The objective of this article is to execute an assessment of financial health of twelve regional capitals of the Czech Republic in the period from 2012 to 2015. INEKO (2017b) calculator of financial health was used for this task. This INEKO calculator is publicly available and it can be used also for Czech municipalities. Another methodology that was used is a methodology used by authors Tkáčová, Konečný (2016). This methodology focuses mainly on financial aspects of financial health of regional capitals' assessment by means of an aggregate financial health indicator. Prague was excluded from this analysis since Prague is both a municipality and a region and thanks to that it has a specific position. This article thus fills up a certain gap while this article provides, based on a few basic indicators, a view on regional capitals of the Czech Republic's financial health.

1.1 Ways how to measure financial health

There exist a number of approaches to ways how to assess financial health of local self-government's, especially in the USA. The most famous approaches are based on GABS methodology (1999) that is further developed and updated (e.g. Rivenbark et al., 2010 or Chaney, 2005). Another approach to assessing financial condition provides the so called The 10-point test; (Brown, 1993). This test is a simple tool that allows municipalities to find out what is their financial position based on calculation of basic financial indicators. This test was developed for, in particular, smaller municipalities and cities in the USA. Also Carmelli (2007) focused on monitoring financial performances of municipalities in his work applied on municipalities in Israel. Carmeli focuses on performance both from the financial point of view and municipality development point of view. He assesses, similarly to Denis (2004), evaluation of municipality's performance in a wider context, not only financial, but also in general municipality development context. Both approaches observe the ability of municipal management to place, develop, manage and monitor own human resources, financial resources, physical resources and information resources. Both approaches also assess the influence of the overall environment (incomes levels, age, employment rate levels and level of education of municipality's citizens). Similar approach is used also by standard rating agencies (Standard & Poor's, 2012) for assessment of the ability of a given undertaking to meet its obligations.

However, without any doubt, majority of studies and approaches agree on the fact that financial conditions are important for effective and efficient provision of public services. Wang et al. (2007) approach seems to be the most suitable approach with its four areas of overall financial health. The four areas are the following areas: financial liquidity, solvent budgets, long-term ability to repay own debts and long-term ability to provide services on the same level. Most approaches also agree with the fact that each of the given areas should be composed of 2-3 constituent factors that are able to focus its attention on details of any aspect of municipalities' economic activities. The aggregate financial health indicator methodology by authors Tkáčová, Konečný (2016) is based on a similar approach.

As already stated above since 2002 the agency CRIF-CCB has been executing so called iRating of municipalities in the Czech Republic. This analysis is based on the assessment of financial and non-financial credit worseness of a municipality. Financial credit worseness is defined by means of 20 criteria describing financial stability (the most significant is level of debt recalculated per capita as well as assessed in relation to the value of liabilities and assets, budget balance-in particular current revenues and expenditures and the level of debt service) and calculation of non-financial credit worseness is characterized by means of 7 non-financial indicators (such as infrastructure, unemployment, conditions for doing business, age structure of citizens and similar). The monitoring of municipal financial management by the Ministry of Finance of the Czech Republic uses a system of 18 indicators – 16 informative, 2 monitoring. In particular the results of the monitoring indicators (ratio of external financing and of received repayable financial assistances to total assets and current liquidity, newly also the indicator which is introduced by the Act of budgetary responsibility – ratio of debt to average of total revenues for last four years) should identify potential financial problems. Some authors (Pavlas, 2015; Provazníková, Křupka, Pešková, 2015) created their own aggregate indicators. Provazníková, Křupka, Pešková (2015) created index for assessment of financial health of municipalities with use of four areas – liquidity,

profitability, activity and indebtedness. In the framework of these areas they defined 11 indicators both from the financial and economy areas (level of unemployment, average wage level and similar).

2 Material and Methods

This article deals with assessment of financial health of twelve regional capital cities of the Czech Republic in the period from 2012 – 2015. INEKO (2017a) company's methodology was used for the calculation as well as the methodology for aggregate indicator of financial health calculation by authors Tkáčová, Konečný (2016). Results acquired by the various methods are compared at the end of this article.

INEKO company's financial health methodology includes five groups of indicators of financial stability (they are constructed from 15 ratio indicators). Since these are ratio indicators they can be compared with each other for various municipalities. The resulting indicator of financial health is calculated as a weighted arithmetic average of partial scores from these five groups of indicators – balance of the budget to total revenues (basic balance), debt service, ratio of debt to revenues, liabilities with 60 and more days past maturity, cash position ratio. All these groups have the same weight in the calculation of the aggregate indicator (1) with the exception of total debt (2). The score for each group of indicators is calculated as the weighted average of values for the last four years while newer data have higher weight. According to INEKO's methodology cities can reach the total score from 0 to +6 where the higher the value the more healthy and more resistant is the city to any financial fluctuations. Values higher or equal to +3 indicate financial health of the city. When a city gets the score from 0 to +3 this result indicates such city has financial stability issues (INEKO, 2017a). For the calculation of the indicator of financial health of regional capitals in the Czech Republic INEKO online calculator was used. With regard to the fact that data for cities in the Czech Republic were not available indicator „liabilities with 60 + days past maturity” was not used. The weight of this indicator is however the same as the weight of the other 3 indicators and thus this does not represent any significant misrepresentation of the total score.

The calculation of the aggregate indicator of financial health according to Tkáčová, Konečný methodology operates with five groups of indicators (indebtedness, liquidity, financial management, financial and tax strength and self-financing). In the framework of these five groups of indicators 13 indicators of financial stability were developed by means of 21 input financial indicators. These groups of indicators and their weights are presented in Table 1.

Table 1 – Groups of indicators used in the calculation of the aggregate financial health indicator and their weights.

Monitored Areas	Financial Stability Indicators
Indebtedness Indicators (35%)	Total debt ratio (TD) (50%)
	Share of debt in current revenues for the previous year
	Debt service (DS) (50%) share of debt instalments to current revenues for the previous year
Liquidity Indicators (20%)	Cash position ratio (CPR) (50%)
	Quick ratio (QR) (50%)
Financial management Indicators (20%)	Balance of current budget to current revenues (CUR) (25%)
	Balance of capital budget to capital revenues (CAP) (15%)
	Balance of total budget to total revenues (TB) (35%)
	Profit and loss statement per capita (25%) (PC) (balance of CB and balance of CB and balance of financial operations per capita)
Indicators of tax and finance strength (10%)	Tax strength (TS) (50%) (total taxes per capita)
	Financial strength (FS) (50%) (total taxes and subsidies per capita)
Self-financing indicators (15%)	Rate of self-financing (RSF) (50%) (ratio of own revenues to current expenditures)
	Rate of self-sufficiency (RSS) (50%) (share of own revenues and tax revenues to total revenues)

Source: Tkáčová, Konečný (2016)

Firstly values of input indicators for each regional capital for individual years for the period 2012 to 2015 were identified. The score for the individual indicators of financial stability was calculated based on average values of indicators observed for the individual regional capitals in the individual years. The extreme limit for score 1 and score 5 was defined as the average of maximum, minimum respectively, values for the given indicator for years 2011 – 2014. The extreme limits were defined as an average of maximum, minimum respectively, values for the given indicator for years 2012 to 2015 (with the exception of indicators CD and DS whose extreme limits were set at 60% and 25%). For each financial stability indicator there was used the evaluation score from 1 (the best) to 5 (the worst), that is in the opposite way than used in INEKO methodology. The acquired scores are presented in Table 2.

Table 2 – Score of Financial Health for Individual Indicators of Financial Stability for Regional Capitals in the CR.

FI Score	1	2	3	4	5
TD	0-15	15,1-30	30,1-45	45,1-60	60,1 and more
DS	0-5	5,1-10	10,1-20	20,1-25	25,1 and more
CPR	575 and more	396-574	216-395	37-215	0-36
QR	794 and more	569-793	345-568	121-344	0-120
CUR	28,3 and more	22,5-28,2	16,4-22,4	10,8-16,3	10,7 and less
CAP	-195,5 and more	-288259,9 – (-195,6)	-576325,9 – (-288260)	-864392,8 – (-576326)	-864392,9 and less
TB	16,9 and more	8,1-16,8	0,1-8	-71-0	-71 and less
PC	5993 and more	2903-5992	549-2902	-1805-548	-1806 and less
TS	21847 and more	18962-21846	16073-18961	13185-16072	13184 and less
FS	35682 and more	28926-35681	22166-28925	15406-22165	15405 and less
RSF	0,84 and more	0,77-0,83	0,69-0,76	0,62-0,68	0,61 and less
RSS	0,95 and more	0,86-0,94	0,77-0,85	0,67-0,76	0,66 and less

Source: Own work

The resulting financial health indicator is calculated as the weighted average of partial scores from the above stated five groups of indicators, always for the given year:

Aggregate financial health indicator = 0,35*indebtedness indicator + 0,2*liquidity indicator + 0,2*financial management indicator + 0,1*tax and finance strength indicator + 0,15* self-financing indicator. (1)

The indicator gets values in the range from 1 to 5 where 1 is excellent financial health, 2-very good financial health, 3-good financial health, 4-satisfactory financial health and 5-unsatisfactory financial health. A municipality using this methodology can identify its overall financial health, or potentially which area or which concrete indicator represents a problem. When observing more municipalities it is possible to develop their own ranking, or potentially observe any improvement or any deterioration of financial health of any municipality over time.

The background information for the calculation of the indicators or the indicators themselves was acquired from the Ministry of Finance of the Czech Republic's portal "Územní Monitor" (2017).

3 Results and Discussion

According to the methodologies described above we calculated the score of financial health of twelve regional capitals of the Czech Republic (Brno-BM, Ostrava-OS, Plzeň-PZ, Liberec-LI, Olomouc-OL, Ústí nad Labem-UL, České Budějovice-ČB, Hradec Králové-HK, Pardubice-PCE, Zlín-ZL, Jihlava-JI, Karlovy Vary-KV). According to the methodology by Tkáčová, Konečný (2016) first, for each regional capital, scores for 13 observed indicators for the individual years were calculated. Then evaluation of cities under the five above stated groups of indicators were developed and then aggregate assessment of financial health according to the relation (1) followed.

As an example we provide Table 3 that includes the assessed score for the 13 observed indicators for Pardubice regional capital in years 2012 to 2015. It is clear that Pardubice has an issue with the total debt indicator, however, this indicator improved in year 2015. Another indicator with low mark is the finance and tax strength indicator. The biggest volumes of tax revenues per capita are reached by cities with higher numbers of inhabitants then Pardubice has (Pardubice is with regard to the number of inhabitants rather a smaller regional capital).

Table 3 – The Assessment of Individual Financial Health Indicators for Regional Capital Pardubice

Year	TD	DS	CPR	QR	CUR	CAP	TB	PC	TS	FS	RSF	RSS
2012	4	1	2	3	3	1	3	4	5	5	3	3
2013	4	1	2	3	4	2	1	3	4	5	3	2
2014	4	1	3	3	3	2	3	3	4	4	3	2
2015	3	1	2	3	2	2	3	4	4	4	2	3

Source: Own work

Assessment of financial health of the individual regional capitals for year 2015 for the individual indicators groups and the total financial health indicator are presented in Table 4.

Table 4 – The Score of Financial Health of Regional Capitals in Given Areas for year 2015.

Indicator Groups	BM	OS	PZ	LI	OL	UL	CB	HK	PCE	ZL	JI	KV
Indebtedness	3	3,5	3	5	5	3,5	3,5	3	2	3,5	2	3,5
Liquidity	4	4	4	4	4	3	3	4	2,5	3	1,5	3
Financial Management	2,35	2,1	2,7	2,75	2,5	3,2	2	2,7	2,6	3,2	2,7	2,95
Tax and Financial Strength	2,5	2	2	4	4	4	4	4	4	4	4	4
Self-financing	3	2,5	2,5	2,5	4	3,5	2,5	2,5	2,5	2	3,5	2,5
Total score of Financial Health	3,02	3,02	2,965	3,875	4,05	3,39	3	3,165	2,495	3,165	2,465	3,19

Source: Own work

Table 4 illustrates the comparison of the total score of regional capitals and as well the score for the individual areas in year 2015. It is visible that in that year the worst assessment of financial health had regional capitals Olomouc and Liberec. The biggest issue for these two cities is their large debts. In year 2015 Olomouc showed ratio of debt to current revenues of 198%, Liberec even 241%. Debt service in Olomouc represented 73% and in Liberec 38%. These indicators have the highest weight in the calculation; therefore these cities were evaluated as cities with insufficient financial health. On the other hand, Jihlava and Pardubice ranked as the cities with the best evaluation (total debt indicator was 37% and 43,5%, debt service was less than 2% for Jihlava and 2,6% for Pardubice). These cities get the best score also with other observed groups of indicators, with the exception of indicators of tax and financial strength. The value of indicators of tax and financial strength is significantly better only with the three largest regional capital cities (Brno, Ostrava, Plzeň), this is caused, in the Czech Republic, by a different way of calculation of their shares in shared taxes.

Table 5 illustrates the development of final ranking of regional capitals according to the assigned scores in year 2012 – 2015.

Table 5 – The Development of Financial Health Indicator for Regional Capitals in years 2012 – 2015.

Ranking	2012	2013	2014	2015
1.	JI (2,71)	JI (2,54)	JI (1,75)	JI (2,47)
2.	PCE (2,92)	PCE (2,68)	PCE (2,82)	PCE (2,49)
3.	HK (3,0)	PZ (2,92)	PZ (2,92)	PZ (2,96)
4.	PZ (3,12)	Brno (3,02)	BM (2,97)	CB (3,0)
5.	ZL (3,19)	UL (3,16)	ZL (3,07)	BM (3,02) 5.-6.
6.	BM (3,22)	HK (3,17)	CB (3,29)	OS (3,02) 5.-6.
7.	OS (3,34)	CB (3,32)	HK (3,34)	HK (3,17) 7.-8.
8.	CB (3,64) 8.-9.	OS (3,57)	KV (3,35)	ZL (3,17) 7.-8.
9.	KV (3,64) 8.-9.	KV (3,87)	UL (3,6)	KV (3,19)
10.	UL (3,85)	ZL (3,94)	OS (3,64)	UL (3,39)
11.	OL (4,18)	OL (4,43)	LI (3,87)	LI (3,88)
12.	LI (4,29)	LI (4,68)	OL (4,24)	Ol (4,05)

Source: Own work

Also results over a period of time prove that the best results had, for the entire observed period, city Jihlava and city Pardubice, very good score had also city Plzen that reached average level of debt and above average values for other groups of indicators (with the exception of liquidity indicators). Regional capital České Budějovice is the champion regarding the development of the indicator over a period of time, it jumped from ranking 8-9 in

year 2012 to ranking 4 in year 2015. In the observed period it had above average values of liquidity indicators (both indicators reached over 300%, that means that 1 CZK of liabilities is covered by 3 CZK of financial assets, of current assets respectively). However this brings about a question whether these financial means should be possibly used for some useful purpose.

The lowest ranking (that means the cities with the worst evaluation) had Olomouc and Liberec. The causes of Liberec's high debt are in particular investment actions executed in year 2010 (for instance development of Tipsport Arena and organization of World Championship in Cross Country Skiing). Liberec dealt with access debt and instalments due by re-financing, it issued municipal bonds in the volume of 2 billion CZK with 25 years maturity. Despite high indebtedness Liberec manages to keep rating, according to Moody's agency, at level Aa2 with stable outlook. On the other hand, the weak spot of high debt is the necessity to pay instalments and interest on the debt in the coming years that dramatically limits municipal budget (Liberec, 2014). Olomouc also has high debt due to implemented large investment actions. As an example of such actions can be stated the rehabilitation of tramway lines or the loss making project of aqua park development in year 2009 and further actions in the following years. For year 2014 Olomouc rating was, according to Standard Poor's on the level of A/A-1 with stable outlook (rating A regards assessment of security of long-term liabilities, rating A1 is rating of short-term liabilities). This rating agency, in its rating assessment, gave credit to city management for declining debt and debt service (Olomouc, 2015). Ústí nad Labem is the third worst ranked city, however this city reached, in year 2015, some better values of the indicator that in year 2012 despite the fact that it ranked at 10th place.

The following Table 6, for illustration, compares results of financial health of cities acquired by Tkáčová, Konečný methodology with INEKO's methodology, first for year 2013 and later also for year 2015. Ranking on the top positions did not change even when INEKO's methodology was used. Jihlava and Pardubice are yet again cities with the highest financial health values. Similar results are achieved in comparison of cities with the worst value of financial health-Liberec and Olomouc. However the ranking is different starting with the third place – according to the aggregate financial health indicator. In year 2013 and also in year 2015 the third place was taken by Plzeň, however according to INEKO Plzeň took 6th-7th place in year 2012 and fifth place in 2015. The biggest difference in the evaluation for this indicator is for cities Zlín and České Budějovice. Zlín, in year 2012, according the INEKO's methodology took 3rd-4th place (together with České Budějovice), while according to Tkáčová, Konečný methodology it took tenth place. Similarly the biggest difference in indicators values is with České Budějovice in year 2015. According to INEKO this city took 8th-9th place, while according to the aggregate indicator the city was third.

Table 6 – The Comparison of Financial Health Expressed by the Aggregate Indicator of Financial Health and According to INEKO Agency for year 2013 and 2015.

City	Aggregate Indicator (2013)	INEKO (2010 – 2013)	City	Aggregate Indicator (2015)	INEKO (2012 – 2015)
JI	2,54 (1.)	4,8 (1.)	JI	2,47 (1.)	4,9 (1.)
PCE	2,68 (2.)	4,5 (2.)	PCE	2,49 (2.)	4,8 (2.)
PZ	2,92 (3.)	3,5 (6.-7.)	PZ	2,96 (3.)	3,7 (5.)
BM	3,02 (4.)	3,5 (6.-7.)	CB	3,0 (4.)	3,4 (8.-9.)
UL	3,16 (5.)	3,1 (10.)	BM	3,02 (5.-6.)	4 (3.)
HK	3,17 (6.)	3,4 (8.)	OS	3,02 (5.-6.)	3,3 (10.)
CB	3,32 (7.)	3,7 (3.-4.)	HK	3,17 (7.-8.)	3,9 (4.)
OS	3,57 (8.)	3,6 (5.)	ZL	3,17 (7.-8.)	3,6 (6.-7.)
KV	3,87 (9.)	3,2 (9.)	KV	3,19 (9.)	3,6 (6.-7.)
ZL	3,94 (10.)	3,7 (3.-4.)	UL	3,39 (10.)	3,4 (8.-9.)
OL	4,43 (11.)	2,1 (11.)	LI	3,88 (11.)	2,2 (11.)
LI	4,68 (12.)	1,4 (12.)	OL	4,05 (12.)	1,5 (12.)

Source: Own work

4 Conclusion

From the above-stated comparison it issues that differences in the financial health indicator are minimal in case of regional capitals with the best, or the worst evaluation respectively. Differences are visible only with the third and the tenth place. Despite the fact that both methodologies work with very similar input indicators, the methodology for the calculation of the result value of the aggregate indicator differs. INEKO's methodology

calculates the score for each group of indicators as the weighed average of values for the last four years while each year has a different weight – the newest data receive the biggest weight. In the given indicators group this may describe the real situation of a city in a more accurate manner since the indicator reflects values for a longer period of time, longer than one year. Contrary to INEKO's methodology Tkáčová, Konečný methodology calculates the score for each indicator in the given year separately. This may cause a certain overvaluation or undervaluation of the given indicator in the total score (for instance the indicator for debt revenues ratio shall worsen the total score in case a city takes a loan in the given year or if it issues municipal bonds, on the other hand the total score shall improve via groups of financial strength indicators and financial management indicators if such municipality receives any investment subsidy in the given year). The methodologies also utilize various weights with individual indicators and groups of indicators.

From the acquired results it issues that a majority of regional capitals have good to satisfactory financial health. Only two cities – Liberec and Olomouc got the aggregate indicator score in the range of 4-5 which shows only sufficient financial health, also according to INEKO's methodology these are cities that have issues with financial stability. Both cities have above average values of indebtedness indicators. As already stated above, both cities however have evaluation by independent rating agencies where they achieve reasonably good results with stable outlooks. This can be explained by the fact that these cities have sufficient budget volumes and thus larger amounts for debt service do not threaten in any dramatic way their financial management – which is the case of small municipalities. In addition to this, large volume of investments can, in the observed period, worsen this indicator, however for the future this can bring about higher quality of provided services, appreciation of city property and solid utilization of any potential saved financial resources.

For this reason an aggregate indicator of financial health of cities and municipalities calculated in this manner must be subjected to further analyses. However, it may be useful as a first instance piece of information for general public and for citizens of the given city or municipality. From this point of view the approach by INEKO seems to be less complex. INEKO calculates the relevant indicator via an on-line calculator. This tool is however targeted for Slovak cities and municipalities. In the Czech Republic the already mentioned agency CRIF-CCB, made public a simple view of municipal financial management evaluation. It does not work with one aggregate indicator (CRIF-CCB, 2017). It uses six financial indicators – share of budget balance in revenues, bank accounts situation, debt per capita, non-tax revenues per capita, ratio of investment subsidies to capital expenditures. For all indicators there is available their comparison with cities and municipalities of similar sizes.

Any following analysis should focus on calculation of financial health for municipalities of smaller sizes. These municipalities are far more endangered by any budget fluctuations than large municipalities. In particular municipality indebtedness has a large impact on municipalities' financial health. This is reflected also in big weight of indebtedness indicators entering the assessment in the methodologies used by us. After all, a relatively new Czech Republic Act on Budgetary Responsibility gives a lot of focus to indebtedness.

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