

Fiscal savings of Czech municipalities: Precaution or inaction of their administration?

Lucie Sedmihradská¹

Abstract: Czech municipalities keep a substantial and growing volume of bank deposits. An analysis of determinants of unreserved deposits in 2021 suggests that municipalities are precautionary and accumulate fiscal reserves if they can and do so to stabilize their budget management. Signs of low activity of municipal administration such as low creation of new assets and low execution of the approved budget were not related to the volume of unreserved deposits in 2021. The change in the impact of the municipal debt on fiscal savings from strongly negative to weakly positive between 2016 and 2021 calls for more research on the impact of the introduction of new local debt regulation.

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Introduction

Our research examines bank deposits in Czech municipalities. These deposits have been growing steadily over the last two decades. They got more attention in the last few years because of the total volume they reached (e.g., Czech Fiscal Council (2022), Wolf (2022), or Kalabiška (2022)). Bank deposits of Czech municipalities amounted to 290 billion CZK (i.e., 4.3 % of GDP or 70.2 % of municipal expenditure) by the end of 2022. The Ministry of Finance (2022a) claims that local governments are not acting as good managers as they do not invest these savings to care for the general development of their territories and the needs of their citizens. Potential opportunity costs are growing as the inflation rate has increased since mid-2021, reaching 15.1% in 2022.

Despite a very good availability of granular budgetary and accounting data for all local governments, no detailed analysis and evaluation of this situation is available yet. The only exception is an analysis of the 2021 data by different municipal size groups prepared by the Czech Fiscal Council (2022). This paper fills in this gap.

The objectives of the paper are (1) to analyze the volume and development of bank deposits of Czech municipalities using a full sample of 6,252 units in the period 2010 to 2021, (2) to explore the determinants of municipal per capita bank deposits in 2016 and

¹ Prague University of Economics and Business, Prague, Czech Republic, sedmih@vse.cz

2021 and (3) to discuss if they suggest either precautionary or inactive behavior of Czech municipalities in 2021.

The volume and development of municipal savings are analyzed using a set of indicators – bank deposits per capita and as a share of total and current expenditure, and unreserved bank deposits (i.e., bank deposits minus next year's approved budget deficit) per capita and as a share of total and current expenditure. Descriptive statistics and appropriate figures are utilized.

The econometric analysis (using OLS) focuses on the identification of factors influencing the volume of bank deposits at the end of 2016 and 2021. The two years were chosen as the last year for which data is available (2021) and the last year before the introduction of a new fiscal responsibility regulation (2016).

In the paper's second section, we discuss the motivations for municipalities to accumulate bank deposits and the factors influencing the volume of fiscal savings. The third section describes the data and methods utilized. Then the volume and development of bank deposits in Czech municipalities are analyzed. In the fifth section, we present and discuss the results of the econometric analysis, and in the final section, we conclude.

Fiscal savings in local governments

Three main motivations why municipalities keep fiscal savings² are: transactional, precautionary, and speculative (Hoque et al., 2022). Transactional motivation is related to day-to-day operations. For example, the Government Financial Officers Association recommends that US local governments maintain an unreserved fund balance in the general fund between 5 to 15 % of general fund operating revenues or operating expenditures (Gauthier, 2002). This volume should prevent the liquidation of assets to keep one's payment obligation and keep costs for raising funds externally low. At the same time, financial slack serves as a convenient cash management tool in municipal financial management (Su and Hildreth, 2018). Precautionary motive is self-insurance against unexpected events and expenses. Precautionary motive stands behind the accumulation of rainy-day funds (Gore, 2009). Speculative motive generally means readiness to take advantage of future intergovernmental transfers or investment opportunities that could otherwise be missed.

Management of fiscal reserves should focus on avoiding opportunity costs of excess savings, which may include underprovided public services, tax rebates (Gorina et al., 2019), forgone returns on short-term investments, or fewer capital investments (Marlowe, 2011). High fiscal savings could result from agency problems between municipal officials and citizens. Gore (2009) found out that municipalities with high cash holdings spend more on administrative expenses, city manager salaries and bonuses, and that the councils in

² Existing literature tends to use the terms fiscal savings, fiscal reserves, or fiscal slack as synonyms, with a few exceptions when fiscal reserves are defined more specifically. Some authors even use the term cash or cash holdings. We add the term bank deposits, referring to the exact balance sheet category analyzed. However, if not stated otherwise, all these terms are used in the text as synonyms.

these municipalities are more often staggered. Conversely, Hoque et al. (2022) found a negative relationship between management compensation and cash holdings.

The determinants and uses of fiscal savings of local governments have received growing research attention in the United States, but surprisingly little to none in the rest of the world. There is a considerable variation in local savings regardless of the country or state concerned and little to no guidance about their optimal size. The existing research is far from reaching a consensus about the determinants of local savings, and the state or country's institutional, political, and cultural characteristics are likely to play a key role.

The existence of fiscal reserves is closely related to liquidity and its management. The current liquidity ratio (current assets/current liabilities) is used as one of the SIMU indicators monitored by the Ministry of Finance (2022b). While municipalities are generally aware of its meaning and threshold values, they rarely use liquidity analysis regularly and sensibly (Otrusínová and Kullelová, 2019). The current liquidity indicator is, next to the regulatory purpose of the Ministry of Finance, used for analytical and comparative research (e.g. Vavrek et al., 2021 or Szarowská et al., 2018).

Are the high and growing fiscal reserves the result of precaution or inaction of Czech municipalities? The Ministry of Finance (2022a) with its claim that municipalities are not acting as good managers when they do not invest these savings suggests inaction. Municipalities, on the other hand, argue that they accumulate and use fiscal reserves responsibly and act with precaution (Union of Towns and Municipalities, 2022) and that they are saving for instance to co-finance transfers and take advantage of investment opportunities (Šikulová, 2023).

Gorina et al. (2019) introduce a conceptual framework for the analysis of fiscal reserve accumulation at the city level. Their framework distinguishes between the need to save and the capacity to save. The need to save is related to the stabilization function of local savings, i.e., management of revenue and expenditure fluctuations, and is manifested by the positive relationship between the budget surplus (balance) and fiscal reserves. The need to save is also higher in smaller municipalities because they have less capacity to handle budgetary fluctuations. The capacity to save is higher in municipalities with higher revenue. Both drivers – the need to save and the capacity to save – are related to responsible municipal behavior and the proof of their existence would support the standpoint of Czech municipalities, i.e. precaution.

Active municipal management is demonstrated by high utilization of available resources, e.g., high investment and efficient execution of the approved budget. If the reason for high municipal fiscal savings is their inaction, as claimed by the Ministry of Finance (2022a), there must be strong negative relationships between municipal investment and fiscal reserves or budget execution and fiscal reserves.

There are two opposite views when evaluating the role of debt: An appropriate utilization of debt can be considered a sign of active municipal management, but high debt could endanger the financial stability of the municipality, so very cautious behavior is in place. At the same time, local government debt is subject to regulation.

While answering the above question, it is necessary to take into account the very low tax autonomy of Czech municipalities, as local taxes amount only to 1% of total tax revenue or about 6% of municipal revenue (OECD, 2021). Fiscal reserves serve as a source of

their flexibility, e.g., Wu and Shi (2018) found out that cities facing more restrictive tax limitations tend to maintain higher fiscal reserves.

At the same time, municipal management in the years 2020 and 2021 was strongly affected by the pandemic of Covid-19.

Data and methods

International literature deals primarily with unreserved fund balances. Fund balance is the difference between government fund's current assets and its current liabilities (Figure 1). The part of the fund balance that is appropriated in the following year's budget or designated or reserved for specific purposes in the future is reserved, the rest is unreserved (Hembree and Shelton, 1999).

Figure 1: Fund balance in the balance sheet

Current assets <ul style="list-style-type: none"> • Cash • Bank deposits • Marketable securities • Accounts receivable • Inventory • Prepaid expenses 	Current liabilities <ul style="list-style-type: none"> • Wages payable • Accounts payable
	Fund balance

Source: Finkler et al. (2012, 315), adapted

In the Czech Republic, the focus is on bank deposits (Figure 2), composed of:

- Current deposits – synthetic accounts 232 and 235 (until 2009) and 231, 241 (since 2010³),
- Accounts of government funds – synthetic account 236, and
- Term deposits – synthetic accounts 068 and 244 (available only since 2010).

To analyze the volume of bank deposits in individual municipalities, variables of total and unreserved bank deposits are used. Unreserved bank deposits are calculated as the difference between total bank deposits at the end of year t and the approved budget deficit for the year $t+1$. In reality, unreserved deposits are lower as multiannual commitments should be subtracted as well. Unfortunately, multiannual commitments are not systematically reported.

³ An accounting reform caused changes in the definitions of individual accounts between 2009 and 2010 (Ministry of Finance, 2008).

The variables are expressed in per capita terms and as a share of total and current expenditure:

- $DEPOSIT_t$ – bank deposits⁴ on 31 December in year t divided by the number of inhabitants as of 1 January in year t ,
- $UNRES_t$ – bank deposits on 31 December in year t minus approved budget deficit for the year $t+1$ divided by the number of inhabitants, in the case of budget surplus $UNRES_t = DEPOSIT_t$,
- $DEPOSIT_EXP_t$ – the ratio of $DEPOSIT_t$ to actual expenditure in year t ,
- $UNRES_EXP_t$ – the ratio of $UNRES_t$ to actual expenditure in year t ,
- $DEPOSIT_CUREX_t$ – the ratio of $DEPOSIT_t$ to actual current expenditure in year t , and
- $UNRES_CUREX_t$ – the ratio of $UNRES_t$ to actual current expenditure in year t .

Unreserved bank deposits capture one of the key roles of bank deposits – to balance the approved budget, i.e., to provide resources for approving expenditure that is in excess of the estimated revenue. Approved budget deficits generally exceed the actual ones, due to intergovernmental transfers entering the budget during the fiscal year. Higher levels of unreserved funds are necessary if significant revenue sources are subject to unpredictable fluctuations (Gauthier, 2002).

We use the following Ordinary Least Squares (OLS) model to measure the determinants of municipal bank deposits per capita or municipal unreserved deposits per capita at the end of years 2016 and 2021:

$$DEPOSIT_i = \alpha_0 + \alpha_1 POP_i + \alpha_2 DEBT_i + \alpha_3 REV_i + \alpha_4 BAL_i + \alpha_5 ASSETS_i + \alpha_6 FOREC_i + \varepsilon_i, \quad (1)$$

and

$$UNRES_i = \alpha_0 + \alpha_1 POP_i + \alpha_2 DEBT_i + \alpha_3 REV_i + \alpha_4 BAL_i + \alpha_5 ASSETS_i + \alpha_6 FOREC_i + \varepsilon_i, \quad (2)$$

where the subscript i represents a municipality.

- $DEPOSIT_i$ – bank deposits on 31 December in year t divided by the number of inhabitants as of 1 January in year t ,
- $UNRES_i$ – bank deposits on 31 December in year t minus approved budget deficit for the year $t+1$ divided by the number of inhabitants, in the case of budget surplus $UNRES_i = DEPOSIT_i$,
- POP_i – number of inhabitants on 1 January in year t ,
- $DEBT_i$ – debt on 31 December in year t divided by the number of inhabitants,
- REV_i – the sum of municipal revenue per capita in years $t-4$, $t-3$, $t-2$, $t-1$ and t ,
- BAL_i – the sum of differences between municipal revenue per capita and municipal expenditure per capita in years $t-4$, $t-3$, $t-2$, $t-1$ and t ,
- $ASSETS_i$ – the difference in the value of long-term tangible property per capita at the end of the years t and $t-4$,

⁴ for years 1997 to 2009 synthetic accounts 231, 232, 235 and 236, for years 2010 to 2021 synthetic accounts 068, 231, 236, 241, and 244

- *FOREC_i* – the average of the ratio of actual expenditure to approved expenditure in years $t-4$, $t-3$, $t-2$, $t-1$, and t .

We use a full sample of Czech municipalities (6,256) with a few exceptions in the case of missing data. The data source for all the variables is the database Monitor provided by the Ministry of Finance.

Table 1: Descriptive statistics

	Count	Average	Standard deviation	Coeff. of variation	Minimum	Maximum
DEPOSIT_16	6,250	17,480.8	36,377.70	2.0810	1.7508	1,970,950
DEPOSIT_21	6,251	29,067.6	29,638.00	1.0196	1.0501	823,129
UNRES_16	6,250	13,839.1	34,351.10	2.4822	0	1,842,380
UNRES_21	6,251	21,971.1	27,283.40	1.2418	0	754,178
ASSETS_16	6,251	25,894.2	47,582.50	1.8376	-417,866	1,082,790
ASSETS_21	6,251	6,478.09	17,962.60	2.7728	-230,138	431,642
BAL_16	6,250	7,927.33	18,915.80	2.3862	-243,869	778,533
BAL_21	6,251	10,904.1	24,390.80	2.2368	-295,604	541,386
DEBT_16	6,250	1,850.87	5,462.91	2.9515	0	132,785
DEBT_21	6,251	2,785.74	9,546.23	3.4268	0	321,569
POP_16	6,250	1,688.44	17,906.90	10.6056	15	1,267,450
POP_21	6,251	1,711.11	18,669.70	10.9109	14	1,335,080
REV_16	6,250	198,582	139,038.00	0.7002	54,771.60	7,234,660
REV_21	6,250	397,054	196,546.00	0.4950	179,356.00	5,976,290
FOREC_16	6,250	1.2946	0.4080	0.3152	0.3083	6.4041
FOREC_21	6,251	1.1841	0.2872	0.2425	0.3922	4.3325

Source: author

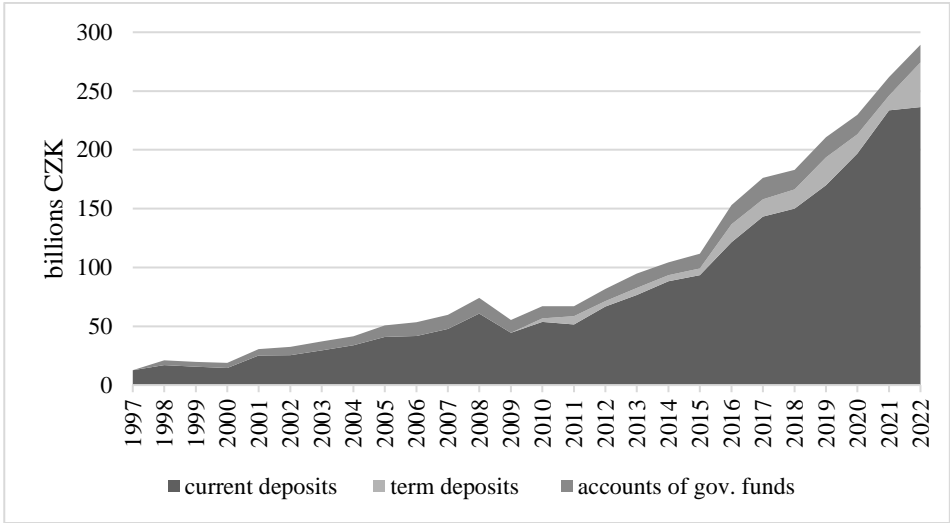
Bank deposits in Czech municipalities

Bank deposits held by Czech municipalities have been growing steadily with the only exception in 2009 when the Great Recession hit the Czech Republic (Figure 2).

Municipalities may establish monetary funds, both with a special purpose and without it. Their bank accounts are reported separately (Figure 2), so we can see that their use is very limited. This is similar to the praxis observed in the United States where local governments maintain general fund balances as “surrogates” for rainy-day funds (Hembree et al., 1999 or Ducombe and Hou, 1994).

The applied classification of bank deposits provides only minimal information about cash or liquidity management practices. We can observe a growth of term deposits in 2022 as a reaction to the sizable growth of interest rates. Unfortunately, various saving accounts are reported as current deposits.

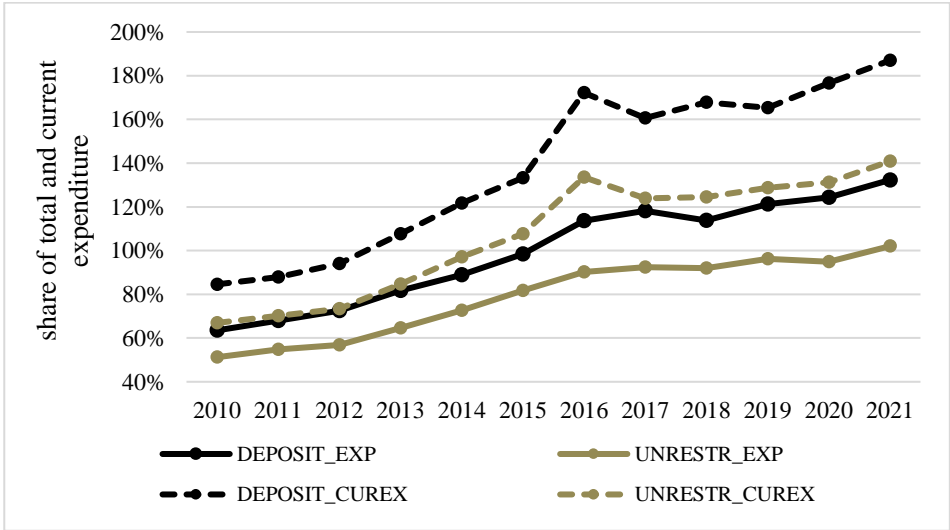
Figure 2: Municipal bank deposits (1997–2022, billions CZK)



Source: Monitor

An analysis of the bank deposits of individual municipalities in the period 2010 to 2021, using the average share of bank deposits and unreserved bank deposits in total and current expenditure, shows generally lower growth with short periods of (almost) no growth (Figure 3).

Figure 3: Total and unreserved municipal bank deposits as a share of total or current expenditure (2010 – 2021, average, N=6,250)



Source: Author

To test if the year-to-year changes are significant, we use Fisher's least significant difference (LSD) procedure. Table 2 displays which subsequent years in the case of individual bank deposit variables show statistically significant means differences at the 95,0% confidence level.

Table 2: Significant differences in means in bank deposit variables (2010–2021)

	2010 -11	2011 -12	2012 -13	2013 -14	2014 -15	2015 -16	2016 -17	2017 -18	2018 -19	2019 -20	2020 -21
DEPOSIT _t			x	x	x	x	x	x	x	x	x
UNRES _t			x	x	x	x	x	x	x	x	x
DE- POSIT_EXP _t			x	x	x	x			x		x
UNRES_EXP _t			x	x	x	x			x		x
DEPOSIT_CU- REX _t			x	x	x	x	x		x	x	x
UNRES_CU- REX _t			x	x	x						x

Note: X indicates the means in the two years were different

Source: Autor

Bank deposits, regardless of the variable used, did not change between 2010 and 2012. We can observe an interruption of the growth in some years when using relative size variables. In the case of unreserved funds as a share of current expenditure (UNRES_CU-REX_t), there were no significant year-to-year changes between 2015 and 2020. This means that municipalities kept on average stable savings to current expenditure ratio.

The growth between 2020 and 2021 can be attributed to a considerable underprediction of tax revenue in 2021 (by 16.9% in comparison to an average of 8.3% between 2010 and 2019). This was caused by substantial changes in personal income tax and an increase in the share of municipalities in the shared taxes from 23.58% to 25.84% approved in December 2020, and the continuing Covid-19 pandemic.

Results and discussion

We estimated the regression model using Ordinary Least Squares (OLS) and the results are shown in Table 3. The dependent variables are bank deposits and unreserved deposits per capita at the end of 2016 and 2021.

decline in population means an average increase of unreserved funds of 3.7 CZK per capita, *ceteris paribus*). This is in line with Gore's (2009) findings in the case of US cities and towns. The negative relationship between the size of an organization and the volume of cash holdings is related to the fact that larger organizations are likely to get financing more quickly and cheaply (Hoque et al., 2022) and that small localities are more likely to use the general fund as a savings account for future capital project financing (Gorina et al., 2019).

Table 3: Regression results

Dependent variable:	DEPOSIT_16	DEPOSIT_21	UNRES_16	UNRES_21
CONSTANT	2,820.64 *** (1,073.28)	13,305.80 *** (1,150.94)	-2,661.46 *** (1,052.14)	
POP	-0.0713 *** (0.0170)	-0.0532 *** (0.0139)	-0.0734 *** (0.0167)	-0.0370 *** (0.0138)
DEBT	-0.7037 *** (0.0594)	0.0672 *** (0.0331)	-0.6533 *** (0.0582)	0.1571 *** (0.0329)
REV	0.2004 *** (0.0026)	0.0648 *** (0.0015)	0.1860 *** (0.0026)	0.0360 *** (0.0007)
BAL	0.4464 *** (0.0170)	0.6772 *** (0.0117)	0.3929 *** (0.0166)	0.6771 *** (0.0115)
ASSETS	-0.0359 *** (0.0076)	-0.0516 *** (0.0151)	-0.0416 *** (0.0075)	
FOREC	20,333.10 *** (791.14)	-14,467.40 *** (945.63)	-16,330.60 *** (775.56)	
R-squared	56.46 percent	52.39 percent	53.08 percent	66.28 percent
R-squared (adjusted for d.f.)	56.42 percent	52.34 percent	53.03 percent	66.27 percent
Standard Error of Est.	24,015.30	20,466.50	23,542.30	20,350.70
Mean absolute error	11,591.00	12,346.70	11,849.60	12,809.00
Durbin-Watson statistic	2.0154	1.9380	2.0069	1.8057
Lag 1 residual autocorrelation	-0.0078	0.0305	-0.0035	0.0967
N	6,250	6,251	6,250	6,247

Note: *, **, *** indicate significance at $p < 0.1$, 0.05, and 0.01 respectively, standard errors are reported in parentheses.

Source: Author

Bank deposits both total and unreserved per capita are lower in bigger municipalities. The impact is smaller in 2021, especially in the case of the unreserved funds (100-person

Higher revenue and higher budget balance in the last five years led to higher bank deposits and unreserved bank deposits. Between 2016 and 2021, the importance of these two factors changed: in 2016, the most important factor was revenue per capita, explaining 40.9 and 39.9 % of the variability of deposits per capita (DEPOSIT2016) and unreserved deposits per capita (UNRES2016), respectively. In 2021, the strongest factor was budget balance per capita, explaining 35.5% of the variability of both deposits and unreserved deposits per capita.

Gorina et al. (2019) distinguish between two origins of fiscal reserve accumulation: the need to save and the capacity to save. Here both of them are confirmed: municipalities use reserves to manage fluctuations in budget balance (need to save) and generate savings in case of higher revenue (capacity to save). The need to save origin is stronger in 2021 and in the case of unreserved funds, i.e., additional revenue of 1,000 CZK per capita in the five years 2017 to 2021 led to average growth of unreserved funds by 36 CZK per capita *ceteris paribus*, while an additional budget surplus of 1,000 CZK in the same five years period led to average growth of unreserved funds by 677 CZK per capita *ceteris paribus*. The positive association between surplus and fiscal reserves validates the budget stabilization function of local savings (Gorina et al., 2019).

There is a clear trade-off between bank deposits and the growth of fixed assets – the higher the growth of fixed assets, the lower the deposits, i.e., money is either kept or transformed into fixed assets. The negative relationship between capital expenditure and cash holdings was confirmed by Hoque et al. (2022) in the case of New Zealand's local councils. There is, however, no significant relationship between unreserved deposits at the end of 2021 and the change in assets between 2017 and 2021. This means that past investments did not have an impact on the volume of unreserved funds. At the same time, the intensity of the relationship is quite weak in the remaining cases, e.g., the growth of assets between 2017 and 2021 by 1000 CZK per capita led on average to a decline of bank deposits by 41 CZK per capita *ceteris paribus*.

FOREC is a ratio of actual expenditure to budgeted expenditure. A higher value means higher use of budgeted funds and higher usage of grants and transfers received during the budget year; a lower value means lower usage of budgeted funds. Bank deposits and unreserved deposits are higher if FOREC is low. If the budgeted funds are not used during the budget year, they lay in the bank account at the end of the year. This is in line with the findings of Barrett et al. (2019) that fiscal slack can be accumulated through the budget process if implicit fiscal slack is later translated to explicit slack. Again, this relationship is not significant in the case of unreserved deposits per capita at the end of 2021.

Debt plays a different role in the two examined periods. In 2016, the relationship is negative, i.e., the higher the debt, the lower the bank deposits and unreserved funds. Hence, municipalities did use available resources – either reserves or debt – to finance their expenditure. This is in line with the findings of Hoque et al. (2022) in the case of New Zealand's local councils.

The situation changes and the relationship in 2021 is positive, i.e. the higher the debt, the higher bank deposits and unreserved funds. Hence, municipalities with more deposits tend to borrow more than those with fewer deposits. Marlow (2011) explains such a positive relationship through the attempt to get better rating thanks to having some fiscal reserves.

The data on average long-term credit interest rates provided by the Czech National Bank show little variance in the period 2012 to 2020 (2.6 to 3.8 % p.a.) with some growth in 2021 (4.7 p.a.), thus the argument of clever usage of credits with low-interest rates does not seem to hold.

In 2017, the Budget Responsibility Act was approved. It introduced a debt reduction rule for local governments which states that if the debt of a local government at the balance sheet date exceeds 60% of its average annual revenues over the last four budget years, the government must reduce it in the following calendar year by at least 5% of the difference between the amount of its debt and 60% of its average revenues over the last four budget years, otherwise its share in tax revenue is suspended. Therefore, we can hypothesize that with the introduction of this regulation, municipalities are more cautious when taking debt and that they keep higher reserves to be able to comply with the debt reduction regulation.

Conclusion

Czech municipalities keep substantial fiscal reserves and this behavior is similar to that of local governments abroad. The focus of the public debate are bank deposits. This indicator does not consider existing municipal liabilities or obligations. The recognition of reservation of funds for balancing the approved budget and the growth of municipal expenditure shows a slightly different picture: While the total bank deposits grew between the end of 2016 and 2021 by 71%, the average per capita deposits (variable DEPOSITt) grew by 66% and the unreserved deposits as a share of expenditure (variable UNRES_EXPt) grew only by 12 percentage points.

The high volume of fiscal reserves results from the Czech institutional setting: very low financial and tax autonomy and a high share of transfers with unpredictable fluctuations.

The analysis of factors determining per capita bank deposits confirms the findings from other studies: smaller municipalities keep higher reserves. The strong positive association between budget balance and fiscal reserves validates the budget stabilization function of local savings (Gorina et al., 2019). A positive relationship between revenues and bank deposits confirms that municipalities create reserves when they can. In this regard, the situation of the last two years was very convenient: tax revenue grew much faster thanks to changes in legislation and high inflation.

The change of the role of debt from strongly negative in 2016 (the growth of debt per capita by 1,000 CZK led to an average decline of bank deposits by 704 CZK, *ceteris paribus*) to slightly positive in 2021 (the growth of debt per capita by 1,000 CZK led to average growth of bank deposits by 67 CZK, *ceteris paribus*) may suggest the impact of the new debt reduction regulation introduced since 2017 and more precaution.

The inaction of municipal administration can be demonstrated, among others, by low investment (no growth of ASSETSt), low budget execution (low FORECt), and to some extent, no usage of borrowing (low DEBTt). None of these factors did impact unreserved bank deposits at the end of 2021; the first two factors were not significant and no or low debt was associated with slightly lower unreserved bank deposits.

So, are the high and growing fiscal reserves the result of precaution or inaction of Czech municipalities?

We did not find any proof that the recent growth of fiscal reserves is related to the inaction of municipal administration. On the other hand, the analysis proves the precaution of municipalities in all three existing dimensions:

- Transactional: Municipalities enjoy convenient financial management with sufficient liquidity, especially in the lack of professional financial managers in many municipalities.
- Precautionary: Municipalities maintain a safety cushion to be able to cope with unexpected local events, sudden changes in intergovernmental settings, or new regulations.
- Speculative: Municipalities want to be ready to take advantage of transfers or investment opportunities.

Nevertheless, precaution and inactivity motives or reasons for high fiscal reserves are not isolated from each other. An analysis of formation and especially of the use of fiscal reserves would shed more light on the issue. It would be also worthwhile to explore the impact of new or changed central government regulations on municipal saving behavior.

High inflation and current fiscal consolidation proposals (Chamber of Deputies, 2023) are likely to limit the space for the creation of fiscal reserves due to lower resulting budget balances. The proposed institutional changes – a slight strengthening of debt regulation and an increase of the municipal transfers co-financing share – may, however, reinforce municipalities' precaution.

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