Tamás Vasvári

The Financial Management of Local Governments in 2011 in Light of the Crowding-out Effect of their Debt Service

Summary: In my previous research, I carried out an in-depth review of the financial management of local governments and the development of their indebtedness in the period between 2004 and 2010. I sought to put the object of my research – an area that has recently come into the focus of special attention – in a different perspective. As the first step of the present study, the concept of the deficit mechanism will be extended in order to identify the factors which influence local government deficit and the level of local government indebtedness. It can be concluded that while the budget deficit increases net debt, as an indirect consequence, it improves the budget balance owing to the funds raised to cover the related debt service. After this theoretical introduction, we will present the financial management of local governments between 2004 and 2010, followed by a separate analysis of the 2011 sector-level budget. We can conclude that the budget balance of local governments improved significantly in 2011, primarily as a result of the increase in operating and investment revenues. Local government expenditure on renovations—in line with the drop in the overall volume of investments—showed a decrease in 2011, mainly as a result of seasonal trends. The debt of local governments did not show a markedly decreasing tendency in 2011 despite the consolidation of the debt of county local governments as the revaluation effect arising from liabilities denominated in foreign currencies counterbalanced the potential decrease. In the light of the above, it can be stated that the debt service, which has been an increasing burden on the shoulder of local governments from 2012, requires greater financial capacity than local government budgets currently hold and will possibly lead to further reorganisation and/or consolidation measures at both the central and local levels of administration.[1]

Keywords: local government, budget deficit, indebtedness, crowding-out effect, debt service
JEL codes: H60, H62, H70, H72, H74

A NEW PERSPECTIVE ON LOCAL GOVERNMENT FINANCIAL MANAGEMENT

The budget of local governments is part of public finances. [mötv Article 111(1)] The assets and budget balance-sheet of the local government sector are consolidated at the final accounts of public finances. Local government players create public goods for which – in contrast with the revenue structure of the central budget – they also receive central government grants beyond local tax and fee revenues. These revenue streams and their efficiency are analysed in detail by Vigvári (2002, 2011). At this point, I would like to note that the ratio of so-called own revenues and central subsidies (block grants and funds from within public finances) fundamentally determines the revenue flexibility as well as the creditworthiness of a given local government (Vigvári, 2010). The

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classification of local government transactions may be performed in either a functional or an economic breakdown. The former classifies monetary movements based on related public goods (e.g. public education), while the latter groups revenues and expenditures regardless of public function, based on macro-economic effect (operating incomes-expenditures, including own subsidy and fee revenues or personnel and non-personnel expenditures). The present study takes as the basis of its examination the cash-based accounting statements[2] prepared on the basis of the latter classification, which examination gives a priority role to the separation of operating and capital budgets as well as the items related to their financing.

The revenues and expenditures of (local) governments, as well as their development and inter-relations can be described with various indicators. These are examined in detail by the relevant literature (e.g. Vigvári, 2002); therefore, the study only deals with those that have significance with respect to the present topic.

Operating balance The balance of operating revenues and expenditures. In the present study, we consider own revenues, block grants and transfers from within and outside public finances as operating revenues. According to economic classification, expenditures include material, payroll (with related contributions) and other operating expenditures related to the creation of compulsory or voluntary public goods. It also includes received and paid interests. During the deduction of financial capacity, Vigvári (2002) terms this indicator as operating income.

Investment (capital) balance[3] THE balance of capital revenues (privatisation revenues, investment grants and other capital revenues) and expenditures (investments, funds for investments). The balance most often shows deficit as investments and capital movements are booked with regard to a given period, in spite of the fact that their useful life extends to a longer period.

Budget (GFS) balance[2] The GFS system is based on the registry of budget estimates and their fulfilment. It represents the actual expenditure of the state (local government) in a given period and how this was financed (Simon, 2011). During the calculation of the balance, capital movements are removed both from the revenue and expenditure side, so it will not include either capital movements related to borrowing activity, nor the cash residue generated, although it does take privatisation revenue into account. Its value reflects net financing capability. In international practice, the accrual-based value of this indicator is used to measure the requirements set against the deficit of the local government system (Vigvári, 2002).

Financing balance This indicator shows the direction of net financing movements. Income from externals financing are represented as revenues, while debt service (principal repayment) is considered an expense.[4] A positive balance means net indebtedness, while a negative balance means net debt repayment. As off-balance sheet items, the GFS approach does not take these monetary movements into account. The balance is generally in surplus as borrowings are accounted in a single sum while the related debt service extends to several years.

Total balance All revenues and expenditures incurred in a given budget year. The balance indicates the utilisation or generation of reserves.

With respect to local government indebtedness, besides the above indicators, we must also present the concept of financial capacity. In order to calculate its value, we must deduct annual principal repayments from the operating balance (Vigvári, 2002; 2011). A positive value forecasts savings and revenues that can be spent on investments

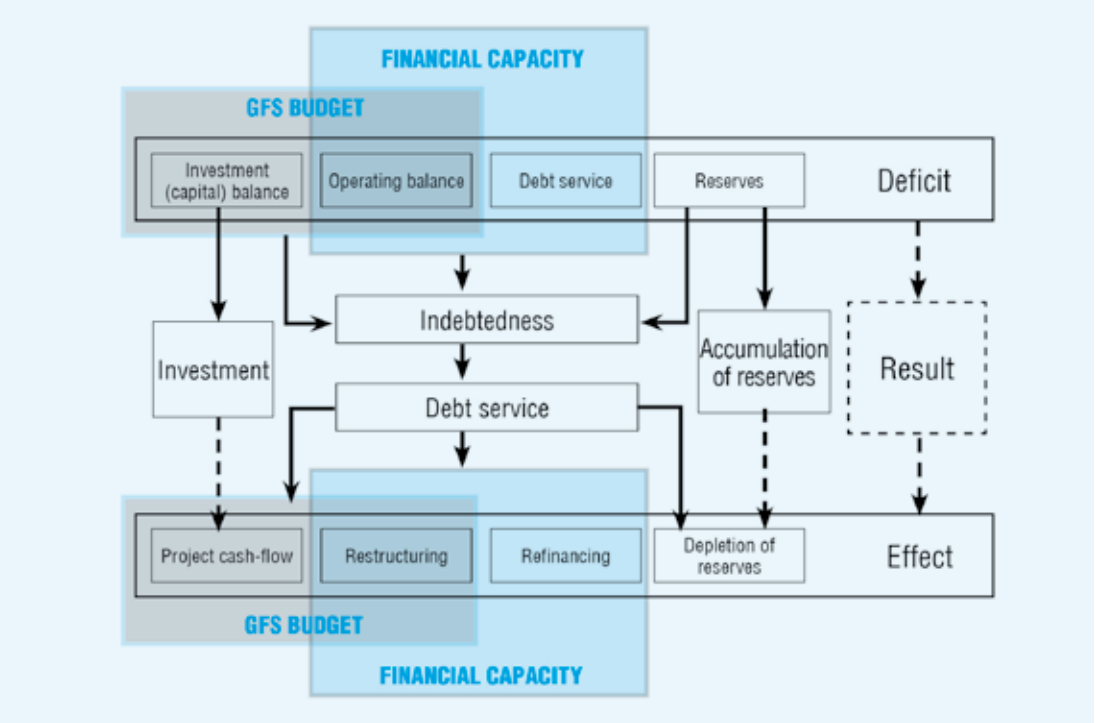
while a negative value represents a lack of creditworthiness. The present study shall also make a recommendation to expand the concept of financial capacity.

We separate three budgets within the financial management of public finances and local governments, which make up a closed financing system through the generation/utilisation of reserves. These are the following: the operating, the investment (capital) and financing budgets. The aggregate balance of these budgets (see total balance above) is equal to the balance of change in reserves.

Chart 1 shows the extension of the *deficit mechanism* as formulated during my earlier research[5]. This is based on the general theory that budgetary (GFS) deficit causes net indebtedness to increase through the rise of debts or the drop in reserves.[5] Increasing indebtedness is accompanied by increasing debt service. The coverage for the debt service is primarily the coverage for the financed project; however – due to the lacking and/or indirect profit generating capability of investments – this is not very typical in Hungarian practice. Another possible coverage is operating balance and financial capacity improving through the increasing of own and tax revenues and/or the decreasing of operating expenditures, which is jointly referred to as restructuring. Restructuring as well as the capital balance, which improves during the increasing of freely usable capital revenues (depletion of assets) and the postponing of investments, can substantially improve the budget position. This phenomenon is called *crowding-out effect*, during which increased debt service results in restructuring, in

Chart 1

THE MECHANISM OF LOCAL GOVERNMENT FINANCIAL MANAGEMENT



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other words it "crowds out" expenditures or makes revenue increases necessary in local government budgets. The crowding-out effect is therefore nothing else but the creation of the budgetary cover for the debt service, which is closely linked to financial capacity. If the debt service results in the deterioration or absence of creditworthiness (= financial capacity is negative), the crowding-out effect must take effect in order for the debt service to remain fulfillable and the budget sustainable.[7] The crowding-out effect will manifest itself as a need for restructuring until financial capacity becomes zero.[8]

If financial capacity (complemented with capital revenues that can be used freely) is below the desired level when the debt service becomes due, adaptation can only be carried out outside of the GFS budget; this may take on the form of the refinancing/restructuring of maturing loans and due repayments or the utilisation of reserves for principal repayment. Net indebtedness does not change in either case; however both cases could have negative implications for the budget. Loans can be refinanced with worse conditions during refinancing (pricing of risks), while in the case of the depletion of reserves, the given local government waives interest income as well.

If the repayments due are not paid, overdue debts begin to increase. This could lead to latent bankruptcy (Vigvári, 2010) or actual debt settlement. The consequence of both – directly or indirectly – is reorganisation, bank restructuring, debt write-off or consolidation.

The risks within the cross-financing of various budgets are illustrated in *Chart* 2.

Besides the utilisation of reserves generated earlier from operating surplus, the financing of operating deficit can only be accomplished with tools considered inappropriate from an economic aspect, which assumes structural problems. As of 2012, the Act on the Economic Stability of Hungary (hereinafter: gst) regulates (links to government approval) the financing of mid-year operating deficit through loans, and prohibits such financing in the case of end-of-year deficit. Pursuant to the provisions of the mötv, operating deficit cannot be planned as of 2013.

As we will see later on, there is considerable need for funds (deficit) in the investment budget of local governments, and borrowing is a suitable tool to finance this as the pay-as-you-use principle (Vigvári, 2002), i.e. the distribution of investment expenditures among generations is enforced through the debt service.

Debt service (financing deficit) covered with operating and investment (capital) budgets may be accompanied by a crowding-out effect if financial capacity is negative. It is important to note that the crowding-out effect is (also) an indirect manifestation of the distribution of investment expenditures among generations; we cannot live in the fiscal illusion that completed investments or a public service quality level sustained beyond our means come "at no price at all". The gst allows the refinancing of debt service, but makes approval obligatory. Since in the years before the crisis, local governments had access to external funds with conditions more favourable than those currently available and these funds have fairly long terms, local governments are not burdened with the pressure of refinancing. However, the management of exchange risk (the CHF–EUR conversion for example) could encourage local governments (and financing banks) to turn to debt novation.

The reserves may be generated from the savings of certain budgets. If these come from loans/issuing of bonds, it will not increase net indebtedness and the accumulated assets may even be used to open a carry trade position.[9] Since the amount of reserves is the cumulated balance of the budget surplus of previous

Chart 2

THE FINANCING OF LOCAL GOVERNMENT BUDGET DEFICITS

	OPERATING BUDGET	INVESTMENT (CAPITAL) BUDGET	FINANCING BUDGET	RESERVES
OPERATING DEFICIT	(restructuring)	Depletion of assets Postponing of projects	Indebtedness	Utilisation of reserves*
CAPITAL DEFICIT (INVESTMENTS)	Postponing of projects	(replacement of assets)	Indebtedness, distribution of burdens among generations	Utilisation of reserves
FINANCING DEFICIT (DEBT SERVICE)	Crowding-out effect	Project pre-financing Depletion of assets Crowding-out effect	(restructuring, refinancing)	Utilisation of reserves**
GENERATION OF RESERVES	✓	Sale of assets	Indebtedness Carry trade	n/a

*Acceptable, provided the source of reserves is earlier operating surplus.

**Acceptable, provided the source of reserves is in line with the objective of the loan.

Source: author's own editing

years, their utilisation can go "unpunished" if it finances expenditures in line with the place of generation. It may pose a problem if local government operation is financed from reserves generated from capital revenue or long-term loans, or if the utilisation of the loan and the source of reserves are not in harmony (for instance the repayment of short-term or liquid loans from reserves generated from asset sales). Except for short-term loans, reserves from any sources may be used for investments.

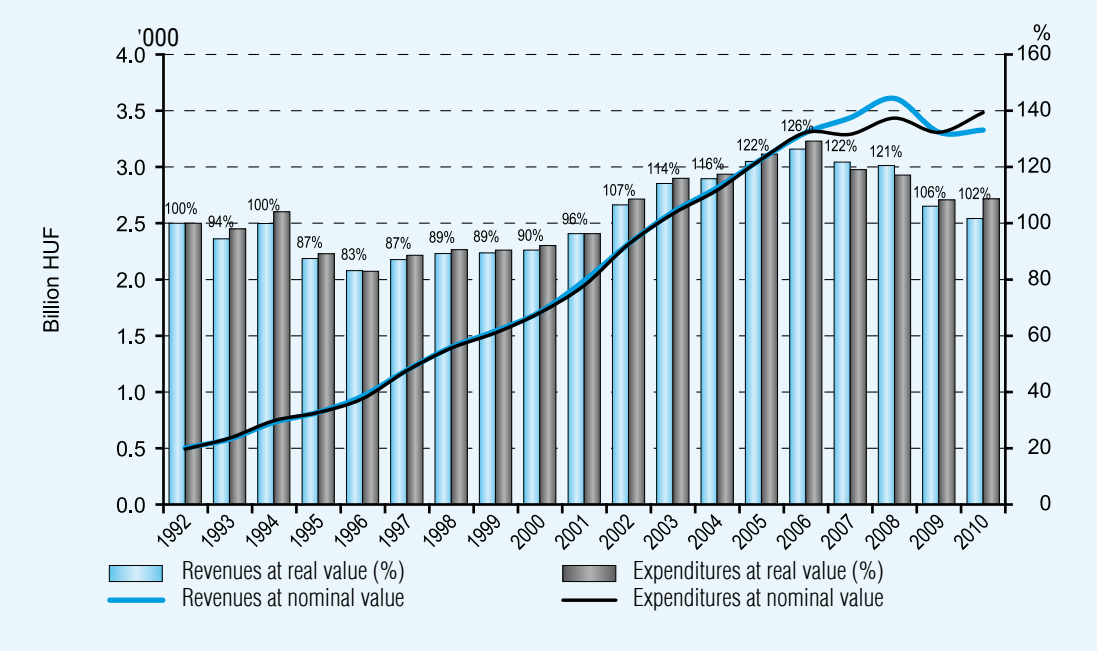
THE FINANCIAL MANAGEMENT OF THE LOCAL GOVERNMENT SECTOR UNTIL 2010

The system of public finances is made up of the central and the local government subsystem [Act on Public Finances (áht) Article 3(1)]. The total expenditure of the local government sector in 2010 was HUF 3,648 billion, which is 26 per cent of total (HUF 14,058 billion) general government expenditures. The development of local government expenditures and revenues is shown in *Chart* 3.

It is typical that – not considering the income shock caused by the bond issuances in 2007 and 2008 – real expenditure had been increasing more intensively than revenues. A structural turnaround was observable in trends from 2006; a drop in real revenues was brought about – in addition to surging inflation in 2007 and 2008 – by the slowing increase of block grants and other central grants as well as assets assigned at current price. Due to the anticipation of decreasing funds, the sector accumulated significant reserves over these years, which resulted in a substantial total surplus in 2007 and 2008.[10] On the other hand, a (total) deficit of more than HUF 155 billion had to be financed by the sector from these reserves in 2010. This

Chart 3

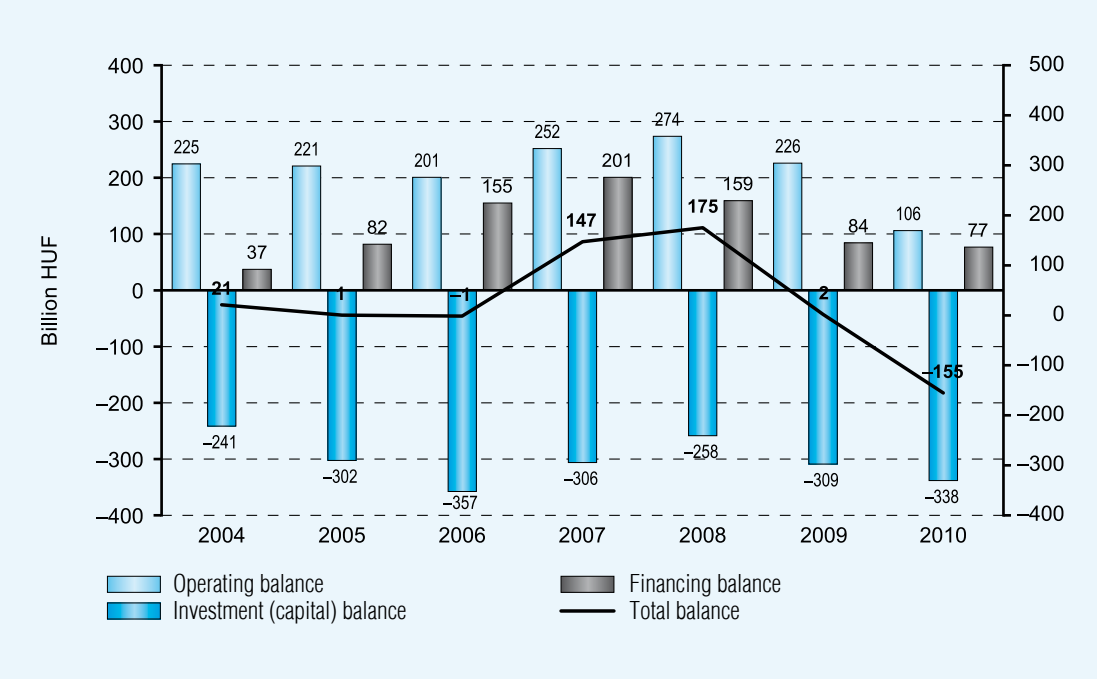
GOVERNMENT REVENUES AND EXPENDITURES AT NOMINAL AND REAL VALUE



Source: authors' own calculation and editing based on Hungarian State Treasury and National Bank of Hungary data

Chart 4

THE BALANCES OF THE BUDGETS OF LOCAL GOVERNMENT FINANCIAL MANAGEMENT



Source: authors' own calculation and editing based on Hungarian State Treasury data

was in part the result of the commencement of principal repayments related mostly to bonds, and in part to tighter lending policies by banks, as well as the seasonal, political cycle-related nature of investments.

The total balance can be broken down into the balances of the operating, capital and financing budgets (see *Chart 4)*.[11]

In general, we can conclude that the whole of the local government sector is characterised by operating and financing surplus (net borrowing) and accumulation deficit.

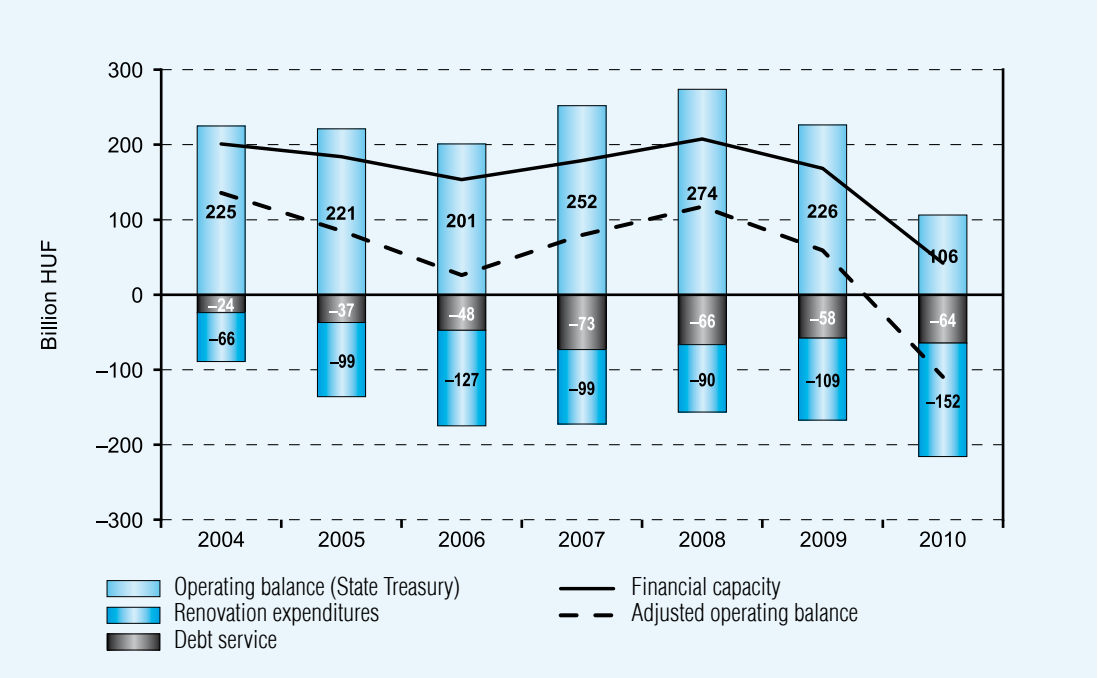
The balance of the operating budget

Local governments finance compulsory and voluntary public tasks from their own revenues, block grants and transfers from within and from outside public finances. Compulsory public services are defined by the Act on Local Governments (ötv) until 2012, and by the Act on the Local Governments of Hungary (mötv) and by numerous sectoral acts as of 2013. The balance of the operating budget of the local government sector shows a surplus since the democratic transformation.

By taking debt service burdens into account in the operating budget, we arrive at financial capacity. This indicator, however, should be complemented with renovation expenditures. These items show asset replacement expenditures that compensate for depreciation, as such depreciation[12] is not directly represented in cash-based accounting statements as financing/provisioning need. This has been a source of tension since the birth of the local government system, as at the time of the democratic transformation, the local governments acquired significant assets in real properties, which meant that the renovation and maintenance functions were

Chart 5

OPERATING BALANCE, FINANCIAL CAPACITY AND RENOVATION COSTS



Source: authors' own calculation and editing based on Hungarian State Treasury data

also transferred to these local governments; however, no direct funds were provided for this purpose (Vigvári, 2008). The coverage for these funds, therefore, has to be raised/generated by local governments individually.[13]

The operating balance adjusted by debt service and asset replacement already illustrates the distressed financial situation of local governments *(see Chart 5)*. While financial capacity showed a surplus of HUF 42 billion, the adjusted operating balance showed a deficit of HUF 110 billion in 2010. The decreasing trend of indicators clearly shows that the lack of funds in the financing of local governments' operation, and the increasing distress of their financial management is a reality, the rate of which exceeded all previous levels in 2010.

The balance of the investment (capital) budget

The registry of investment (capital) revenues and expenditures accounted on a cash basis involves significant distortions within the financial management of Hungarian local governments in several senses. As we have mentioned earlier, depreciation is accounted only in the balance sheet, as a direct equity-decreasing item. The considerable deficit typical of capital budgets can be traced back to the fact that capital expenditures are accounted in one sum, concentrated to one or a few periods (pay-as-you-go), while utilisation and useful lifetime exceeds the investment period (Vigvári, 2002). The even distribution of capital expenditures between benefiting generations can be ensured by borrowing, through debt services over a period of several years (pay-as-you-use). Another benefit is that the cash flow generated by investments financed could decrease the burdens related to debt service.

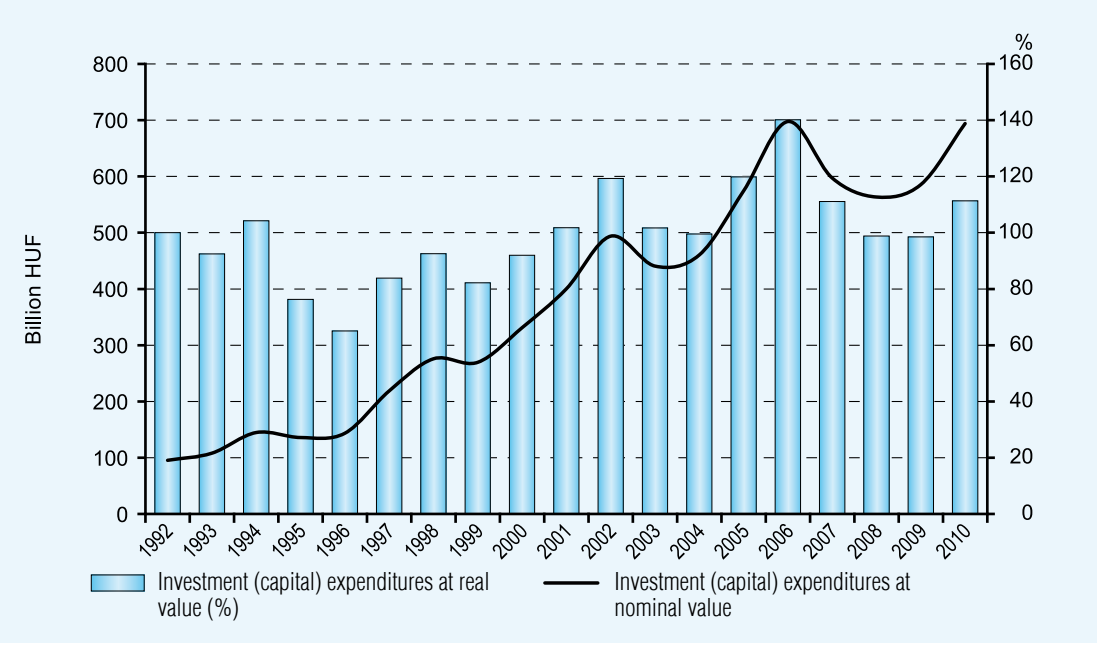
Musgrave's (1959) golden rule is based on the above principle, namely, that long-term borrowing should only finance investments and capital expenditures. It follows from the golden rule and the distribution of capital expenditures over the years that by infringing on this rule, current expenditures may burden future years/generations and that the financing of projects may unfairly burden the current budget/generations.

The investment intensity of Hungarian local governments may be considered balanced over the past 20 years. Compared to 1992, capital expenditures at nominal value increased to seven times their value and increased to 111 per cent at real value by 2010, though these expenditures were still at the 1992 level at real value in 2008 and 2009. The cyclicity resulting from outstanding investments in election years is illustrated clearly in *Chart* 6 at both nominal and real value.[14]

Chart 7 illustrates the development of the financing structure of the aforementioned investments. The proportion of capital revenues was steady, except for a period of dynamic increase between 1992 and 1997 when it was between 40 per cent and 50 per cent. The proportion of capital revenues again rose in 2010 (51.3 per cent), while at the same time the proportion of the financial and operating surplus dropped. At this point, we should note that up until the beginning of the 2000s, capital revenues were comprised mostly of privatisation revenues (their ratio dropped from 40.3 per cent in 2001 to 16.2 per cent in 2010). The utilisation of reserves – as a means of financing investments – first appeared in 2010 with a rate of 22.4 per cent. It should also be observed that the financing structure of investments determines how the burdens of a given investment or investments of a given period are distributed among benefiting generations.

Chart 6

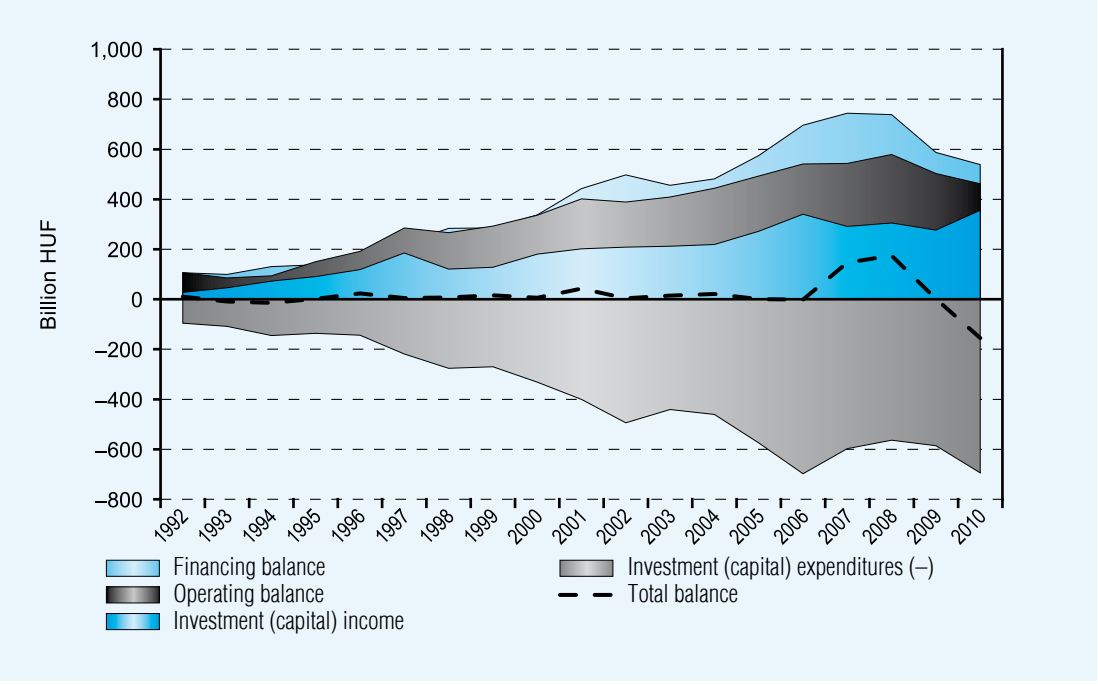
LOCAL GOVERNMENT INVESTMENTS AT NOMINAL AND REAL VALUE



Source: authors' own calculation and editing based on Hungarian State Treasury and National Bank of Hungary data

Chart 7

THE FINANCING STRUCTURE OF LOCAL GOVERNMENT INVESTMENTS



Source: authors' own calculation and editing based on Hungarian State Treasury data

In this period, the real property portfolio of local governments expanded by 1.81 per cent; the ratio of marketable real properties, however, dropped, which seems to suggest that local government investments – which make up 50 per cent of total general government investments (Vigvári, 2011) – are for the most part manifested in non-marketable real estate *(see Chart 8)*. Given their nature or relation to public functions, the positive cash flow generation ability of projects related to key assets[15] or limited marketability assets is uncertain, and may only appear indirectly at best.

In summary, we can conclude that the deficit and financing need of the capital budget is substantial. As close to 50 per cent of local government investments have no capital coverage, other balances must also serve as collateral to finance these. In most cases, local governments failed to assess in advance the expenditures related to project operation and as a result, the future maintenance of these projects may represent additional unplanned expenditures for the budgets (State Audit Office of Hungary, 2011).

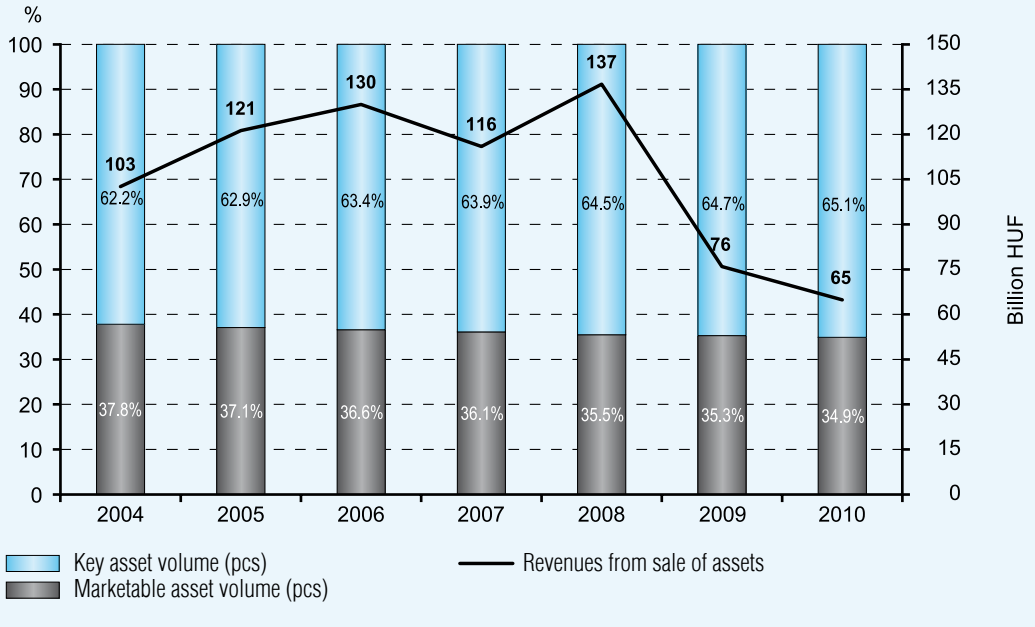
The budget balance of local governments

The balance of the budget is one of the most significant indicators of the financial management of the general government, and is the anchor of the central government's fiscal policy. The GFS balance of the local governments is consolidated into the general government balance.

The proportion of the accrual-based GFS balance of local governments in the

Chart 8

COMPOSITION OF PRIVATISATION REVENUES AND LOCAL GOVERNMENT ASSETS



Source: authors' own calculation and editing based on Hungarian Central Statistical Office and Hungarian State Treasury data

consolidated general government balance has been steadily growing since 2008, peaking at 19.4 per cent in 2010 *(see Chart 9).* In the very same year, the government initially anticipated a local government deficit of HUF 180.7 billion, but which, according to final Charts, amounted to HUF 225.5 billion. This unplanned deficit is largely[16] responsible for the non-fulfilment of the general government deficit target; HCSO statistics show 4.38 per cent instead of 3.8 per cent). Of the local government deficit, 27.5 per cent could be attributed to the financial management of towns with county rank (HUF 63.8 billion), while Budapest and the capital districts were 'only' responsible for 22.3 per cent of the GFS deficit. The ratio of the external and internal sources used to finance this deficit is 33/67 per cent as shown in Chart 4 in the financing and total balance.

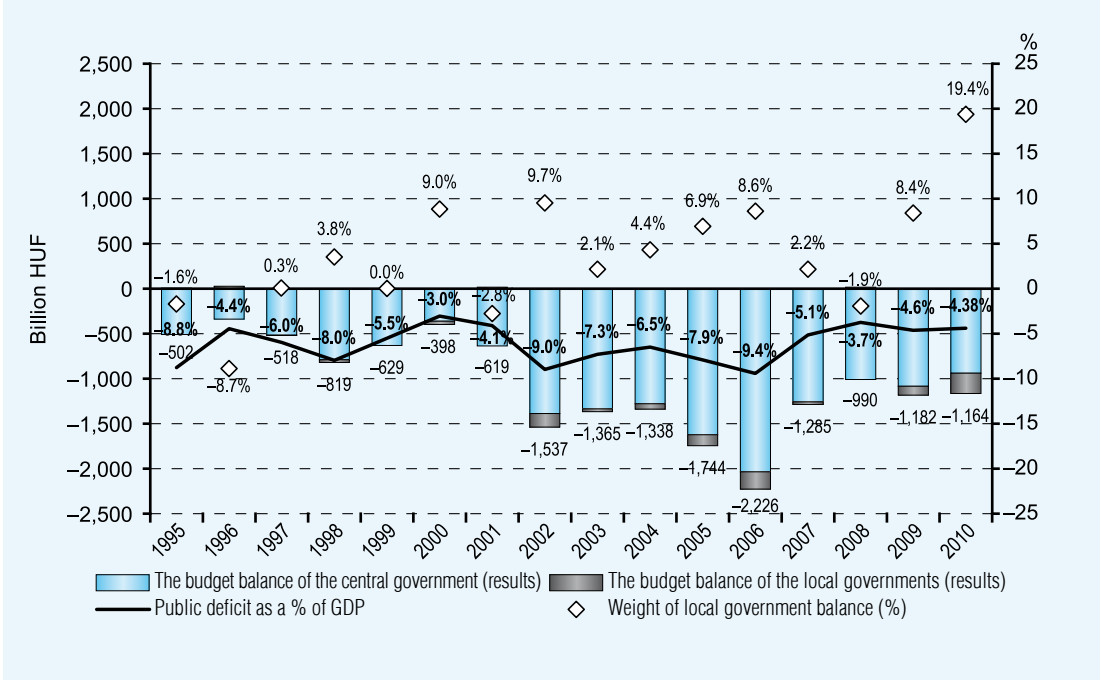
Development of reserves

As part of the financial management of local governments, budgetary or business reserves may be generated. Assets from bond issuance, as a special form of borrowing, may be considered special budgetary reserves. These reserve assets are mostly invested in demand and time deposits or government securities. *Chart 10* illustrates the development of the balance of assets along with bank liabilities.

The balance of cash and deposits as well as the loan volume had been increasing steadily and parallel to one another until the end of 2003. As of 2004, the growth of loan volume exceeded the growth of cash volume. The accumulation of reserves became a borrowing objective of local government credit demand in 2007 and 2008; parallel to indebtedness, local government cash and

Chart 9

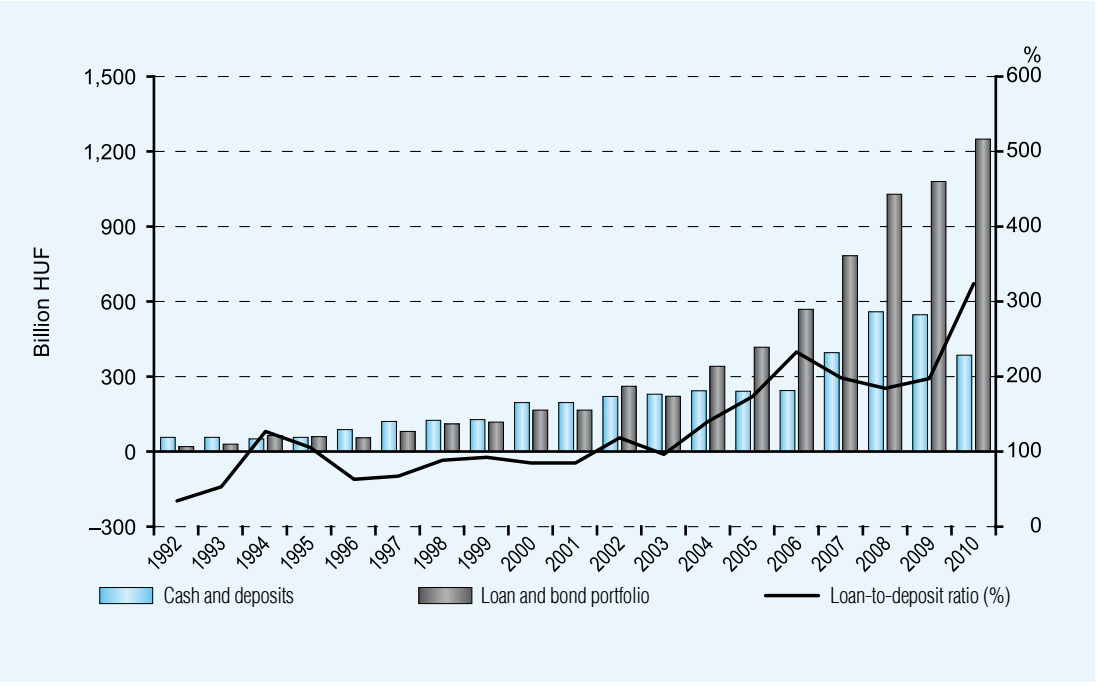
THE COMPOSITION OF THE ACCRUAL-BASED BALANCE OF PUBLIC FINANCES



Source: authors' own calculation and editing based on Hungarian Central Statistical Office data[32]

Chart 10

THE LOAN-TO-DEPOSIT RATIO OF LOCAL GOVERNMENTS



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deposits increased significantly, mainly as a result of bond issuances. There were several factors responsible for these bond issuances.

- The government held out the prospect of limiting local government borrowing[17], which in the end did not pass due to the lack of a 2/3 supporting majority in the Parliament (Vasvári, 2009).
- The settlement and drawdown of loans is complicated, unlike the freely usable bonds. Due to the fact that lending conditions are fixed and specific, loans are not suitable for reserving purposes (Gál, 2010).
- Bond issuances and the private subscription thereof are not subject to the Act on Public Procurement.

The increasing, mostly reserve-driven credit demand also met an increasing credit supply with looser conditions. In this particular period, banks had to pay a minimal margin on interbank foreign exchange funds.[18] Following the issuance of mainly foreign currency denominated bonds, local governments deposited the foreign currency funds in their bank accounts converted to HUF, thereby establishing so-called *carry trade* positions (Vasvári 2009). The banking system gained access to HUF funds at favourable prices through deposits placed at these banks, while exchange rate risk rested with local governments. The expansion of the local government credit market might also have been driven by oligopolistic competition; based on credit value, seven financial institutions currently still dominate 97.3 per cent of the local government financing market (MNB, 2012). The rating of local governments was also enhanced by faith in their operational continuity; a local government cannot be terminated without a successor and their

income cannot be fully depleted (Homolya – Szigel, 2008). In light of these facts and due to certain information asymmetries characteristic of the sector, the margins of local government loans and bonds payable above the reference rates cannot be considered reliable indicators. Gál (2010) states that as a result, the pricing of local governments and the integration of risks into loan and bond conditions is executed primarily through non-interest factors (maturity, collateral, credit line, additional debtor commitments), but the accurate assessment of risks cannot be observed in this area either.[19]

The revaluation resulting from exchange rate risk and the drastic drop in reserves in 2010 caused a significant separation in the development of bank liabilities and deposit portfolio, and this is one of the causes of the 324 per cent loan to deposit ratio recorded at the end of 2010.

THE INDEBTEDNESS OF LOCAL GOVERNMENTS

Besides the budget deficit, the level of public debt (or more precisely its GDP-proportionate ratio) is the most pronounced fiscal anchor within the economic policy of the current government and is part of the Maastricht criteria. Local government debt forms part of the consolidated general government debt, yet prior to 2011, the government had not granted guarantees for local government liabilities. The state guarantee was not to be expected in spite of the fact that in the current turbulent environment, debt settlement procedures[20] may increase investor sensitivity related to Hungarian sovereign risk (Aczél – Homolya, 2011). Furthermore, until 2011 there was only a passive statutory control on the indebtedness of local governments (the debt service limit defined by the ötv), which determined the maximum level of annual debt service, however, stipulated no sanctions for cases of infringement. Several studies (Kovács, 2007; Homolya – Szigel, 2008; Vasvári, 2009) conclude that the limit stipulated by the act was ineffective; therefore, only market players had the opportunity to control the indebtedness of the sector. Although certain banks did adopt the calculus of the limit (Vasvári, 2009), before this it was not in their interest to enforce their rights of restrictions; higher interest rates, tighter lending conditions or the limiting of lending could have entailed the loss of market share and defeat in the credit competition.

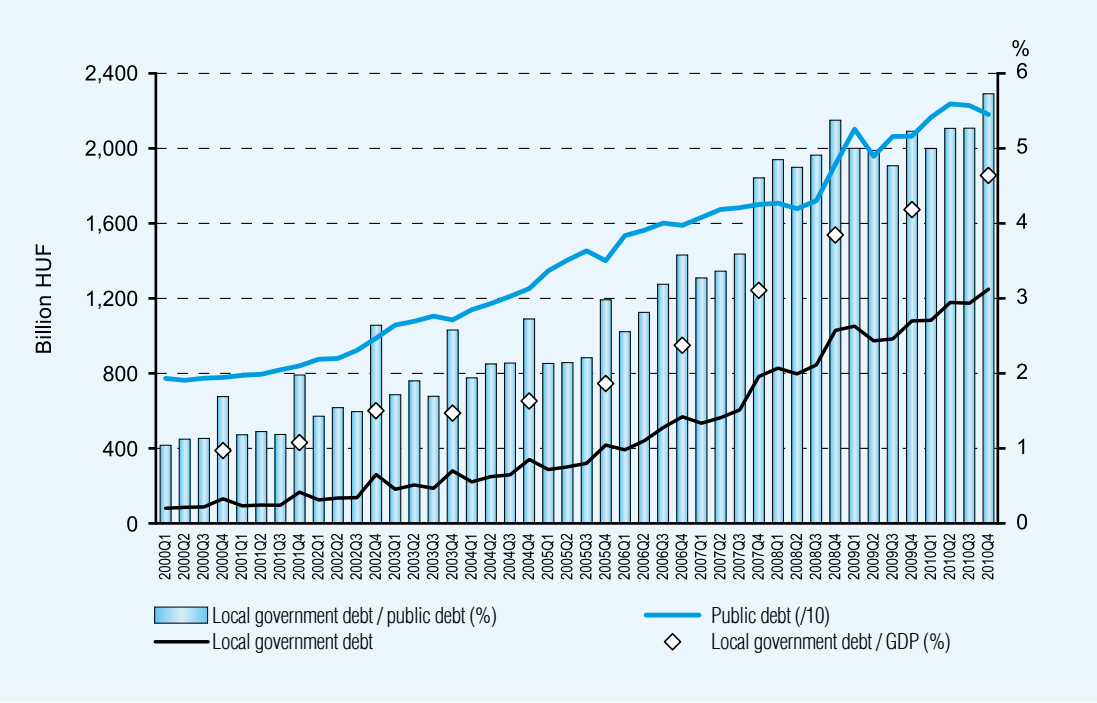
Chart 11 shows that the development of local government debt is similar to the trend of public debt, but is however of a significantly lower magnitude. Local government debt compared to public debt was only 1.7 per cent in 2000, increasing to 5.7 per cent by 2010. The local government debt to GDP ratio grew from 1 per cent in 2000 to 4.7 per cent by the end of 2010.

The typical instruments of local government indebtedness are long-term loans and bonds, and their share in the external financing at the end of 2010 was 51 per cent/49 per cent. The majority of bank liabilities were denominated in foreign currency and their share in the same period was 64.2 per cent. The high ratio of foreign currency debt had the following consequences.

- Higher exchange rates increase the debt service of loans/bonds, which boosts the crowding out effect. This could improve the budget balance, but could also increase total deficit, thereby accelerating the spending of reserves. The profitability of financed projects may also be required to increase.
- Revaluations represent non-realised gains/losses. Actual realisation happens only through interest or principal payments.

Chart 11

THE TOTAL DEBT OF PUBLIC FINANCES AND LOCAL GOVERNMENTS[33]



Source: authors' own calculation and editing based on National Bank of Hungary data

The effects of revaluations are consolidated into the public deficit. In proportion to the volume, this is a virtual liability increment of 15.5 per cent (HUF 193.7 billion), 0.9 per cent of public debt at the end of 2010.

The effects of revaluations in the cash-based approach – similarly to depreciation – appear only in the balance sheet, in the form of asset restructuring between equity and liabilities.

In summary, we can conclude that the ratio of local government debt is not significant within public debt, and therefore, this indebtedness in itself does not cause structural concerns. We can observe that local government deficit is typically (but not exclusively) consolidated into the general government performance with greater weight in election years than debt volume, and in addition, the level of the latter is predictable/foreseeable. The repayment of debt, however, has an indirect effect on the financial management, economic policy and the sustainability thereof of both local governments and the central government.

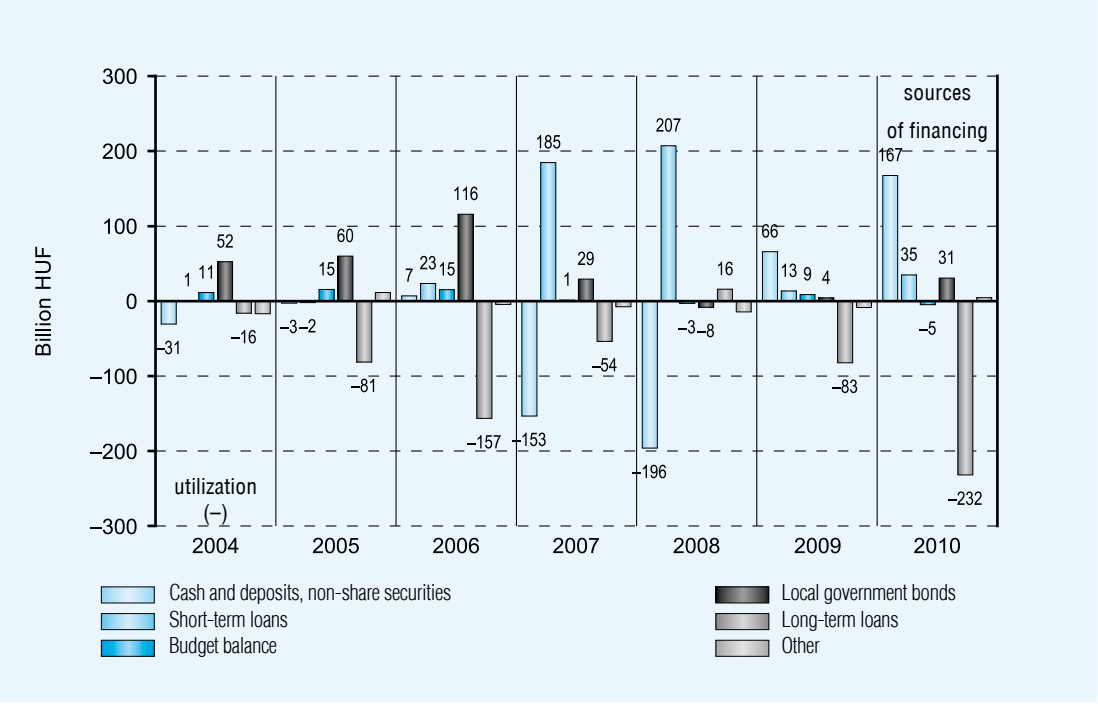
The motivating factors of indebtedness

In the previous sub-chapters, we have identified the possible motivating factors of local government indebtedness. Using *Chart 12*, we are attempting to determine the weight of the various factors.

The financing of local government budgets between 2004 and 2010 can be broken down into three phases. Between 2004 and 2006, external funds (usually long-term borrowing) financed budget deficit. The bond issuance which commenced in 2007 served primarily

Chart 12

LOCAL GOVERNMENT SOURCES OF FINANCING AND THEIR UTILISATION[34]



Source: authors' own calculation and editing based on Hungarian State Treasury and National Bank of Hungary data

to finance the accumulation of reserves and state bonds, while only HUF 25 billion was spent to counterbalance the budget deficit, and the refinancing of loans was not typical. In addition to bond issuances, the positive budget balance of local governments also contributed to the further accumulation of assets in 2008. A slight decrease was observed in long-term loan volume, which could have been the result of the performance of debt service or refinancing; however, the real value drop[21] of short-term loans clearly suggests the operating financing of bonds. It is worth noting that the use of external funds expanded significantly in 2007–2008, but investment volume in the 2007–2009 period shows a declining tendency. As credit market activity declined in 2009, local governments financed their budget deficits mostly from cash reserves. Although the lending market did pick up in 2010 (with HUF 66 billion in exchange rate adjusted bank exposure), the largest part of the deficit was still financed from reserves.

HUF 623 billion in funds was spent by the sector to finance the budget deficit between 2004 and 2010, the greatest share of which was used to finance investment intensity ongoing since the 1990s. Meanwhile, in 2007 and 2008, bonds were issued mainly in order to accumulate reserves; however, of the HUF 349 billion reserved in 2007–2008, only HUF 116 billion remained by the end of 2010. This amount was spent in 2009–2010, a period less intense on the credit market from a supply aspect. Until 2010, bond issuances may have covered structural deficiencies which were revealed when lending sources began to dry up, 3–4 years later than due – in part due to the grace period on principal repayment.

Debt service

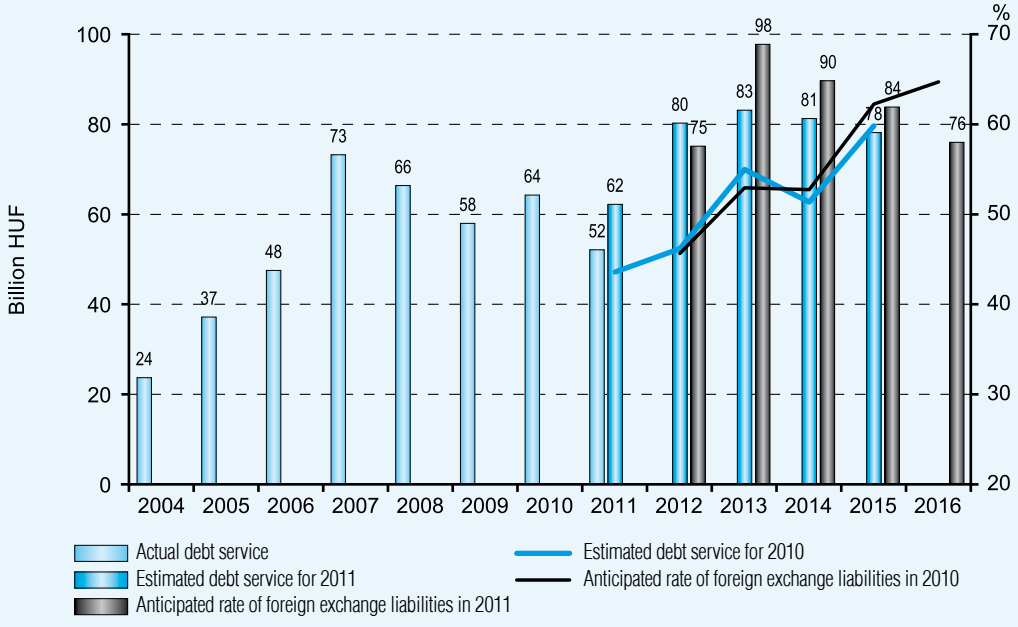
Fulfilling the debt service related to local government indebtedness poses a significant challenge today for local governments. In 2010, the repayment of short-term loans exceeded borrowing volume by HUF 5 billion *(see Chart 12)*. The debt service related to long-term local government loans was HUF 50.8 billion in 2010. As a result of the steady debt service between 2004–2010, the weighted average of their maturity since is calculated at 8.4 years. Compared to bonds, we can conclude that the maturity of loans on average is 10 years shorter.[21] The amount spent on loan repayment annually is lowest in the case of local government bonds (HUF 13.6 billion in 2010), the reason for which is the grace period on principal payments and the long maturity period.

The debt service projection due as of 2011, however, forecasts the increase of repayment liabilities. *Chart 13*. also clearly illustrates that the 2011 estimate regarding 2012 debt service is lower than the 2010 estimate; however, it reaches a higher level in 2013 and drops at a lower rate. This indicates the rescheduling of the original repayment plan of loans and bonds, since the ratio of foreign currency liabilities shows no substantial change (i.e. the difference in estimates is not caused by the difference in exchange rates taken into account).

However, the total debt service of the local government sector in 2013 would still only reach 29 per cent of the borrowing limit set

Chart 13

THE DEBT SERVICE OF THE LOCAL GOVERNMENT SECTOR (2004–2010) AND ITS PROJECTIONS (2011–2015)[35]



Source: authors' own calculation and editing based on Hungarian State Treasury data

out in the ötv, and 39 per cent of the limit set out in the gst – effective as of 2012. We can see that the debt service limit set out in the ötv is not effective, and the new debt rule also leaves a substantial buffer at the sector-level for the growth of local government debt.

Increasing debt service – as we have already mentioned at the theoretical overview – could encourage local governments to begin restructuring or the refinancing thereof. If this fails to reach the desired rate, the volume of overdue trade payables increases, latent bankruptcy occurs and a debt settlement procedure may be initiated against the given local government. Based on debt service estimates, the crowding-out effect could increase considerably in the years to come.

THE 2011 FINANCIAL MANAGEMENT OF LOCAL GOVERNMENTS

Prior to the analysis of the 2011 budget of the local government sector, we must present the one-off item impacting the aggregate budget, caused by Act CLIV of 2011 (on the consolidation of county local governments and the take-over of county institutions and certain health institutions of the Municipality of Budapest). Pursuant to this Act, the mandatory institution maintaining tasks of local governments shall be assumed by the state as of 2012, and all related assets shall be taken over by the state. During the consolidation, the state took over all assets and debt volume of the budgetary institutions of local governments; however, the method of procedure and its scope depended on the type of assets. The primary difference is that assets owned by county local governments, as well as trade payables and guarantees become state property on 1 January 2012, while debt security liabilities were passed to the state on 30 December 2011. From the aspect of consolidation, there were further significant differences between the management of loans and bonds. While in the case of loans, the state fulfils due payments as a third party entering the legal relationship existing between the local government and the financial institution, in the case of bonds issued by county local governments, it provides support for premature reconversion. The former qualifies as actual assumption of loans, the latter, however – as it is financed from loans taken out by the state or through government securities – qualifies as debt refinancing.[23] In accounting terms, this is not assumed debt, which is also reflected by the contents of the EDP reports; the 30 March 2012 report shows the assumed debt of local governments at HUF 196 billion, while in the 28 September 2012 report, this value is 'only' HUF 59 billion. We estimate debts repaid early[24] as the difference of the two values (HUF 137 billion), and we examine 2011 financing expenditures adjusted for this item.[25] Since the revenues of extraordinary repayment were represented as operating revenue (in the budgetary subsidies line of local governments), the operating and budget balance also had to be adjusted. The results of the adjustment are contained in the *"2011*"* column of *Table 1.*, and our analysis will be restricted to this adjusted structure from this point on.

The total revenues of the local government sector increased by HUF 252.8 billion, which exceeds the HUF 77.3 billion increment in expenditures, and as a result local governments closed with a total surplus of HUF 20.2 billion in 2011 in contrast with the HUF 155.2 billion deficit in 2010.

The balances of above the line GFS items also improved significantly compared to 2010; the HUF 81.2 billion increase of the operating balance was 80 per cent due to revenue increase, and 20 per cent the result of

Table 1

REVIEW OF LOCAL GOVERNMENT BUDGETS

(HUF billion)

	2004	2005	2006	2007	2008	2009	2010	2011	2011*
Operating revenues	2,454	2,619	2,713	2,789	2,963	2,849	2,818	3,020	2,883
Operating expenditures	2,229	2,398	2,512	2,537	2,689	2,622	2,711	2,695	2,695
Operating balance	**225**	**221**	**201**	**252**	**274**	**226**	**106**	**324**	**187**
Investment (capital) income	219	272	340	291	305	277	356	446	446
Investment (capital) expenditures	461	574	698	597	564	586	694	629	629
Investment (capital) balance	**–241**	**–302**	**–357**	**–306**	**–258**	**–309**	**–338**	**–183**	**–183**
Budget revenues	2,673	2,891	3,053	3,081	3,268	3,125	3,173	3,466	3,329
Budget expenditures	2,690	2,972	3,210	3,135	3,253	3,208	3,405	3,324	3,324
Budget balance	**–16**	**–81**	**–157**	**–54**	**16**	**–83**	**–232**	**142**	**5**
Financing revenues	141	179	252	357	342	184	155	252	252
Financing expenditures	104	97	97	156	182	100	78	374	237
Financing balance	**37**	**82**	**155**	**201**	**159**	**84**	**77**	**–121**	**16**
Total revenues	2,815	3,070	3,306	3,438	3,610	3,310	3,329	3,718	3,581
Total expenditures	2,794	3,069	3,307	3,291	3,435	3,308	3,484	3,698	3,561
Total balance	**21**	**1**	**–1**	**147**	**175**	**2**	**–155**	**20**	**20**
Opening cash holding	211	228	236	228	358	526	528	379	379
Closing cash holding	232	228	235	376	533	527	372	399	399
Change in reserves	**21**	**1**	**–1**	**147**	**175**	**2**	**–155**	**20**	**20**

Source: authors' own calculation and editing based on Hungarian State Treasury data[30]

expenditure drops. In contrast with the earlier increasing tendency, however, the weight of own revenues in operating revenues dropped (from 38 per cent to 36 per cent). This is primarily due to the fact that the HUF 24 billion increase[26] in local tax revenues is offset by the HUF 26.3 billion drop in value-added tax revenues and related returns.

The balance of the capital budget also improved considerably, which – similarly to the operating budget – was due to both the increase in revenues and the decrease in expenditures (in a 58 per cent/42 per cent ratio). Own capital revenues increased by HUF 11 billion, while funds taken over from the EU increased by HUF 67 billion. The former can also be explained by operation and the financing needs of debt service, while the latter for the most part by the post-financing of EU projects which incurred significant expenses as observed in 2010. The volume of investments and renovations show a decline of HUF 53 billion and 30 billion respectively, which is hardly surprising given the four-year seasonal cycles of investments. The ratio of real property portfolio and marketable

Table 2

THE DEVELOPMENT OF THE FINANCIAL CAPACITY AND FINANCING NEED OF THE LOCAL GOVERNMENT SECTOR

(HUF billion)

	2004	2005	2006	2007	2008	2009	2010	2011	2011*
A. Operating balance	**225**	**221**	**201**	**252**	**274**	**226**	**106**	**324**	**187**
B. Annual principal repayment	24	37	48	73	66	58	64	202	65
C. Financial capacity (A-B)	**201**	**184**	**153**	**179**	**208**	**168**	**42**	**122**	**122**
D. Investment (capital) balance	–241	–302	–357	–306	–258	–309	–338	–183	–183
E. Financing need (C+D)	**–40**	**–118**	**–204**	**–127**	**–50**	**–141**	**–296**	**–61**	**–61**
F. Borrowing	61	119	203	274	225	142	141	81	81
G Change of cash (E+F)	**21**	**1**	**–1**	**147**	**175**	**1**	**–155**	**20**	**20**

Source: authors' own editing based on Vasvári (2013) and Hungarian State Treasury data

properties did not change compared to 2010, holding steady at 34.9 per cent.

The GFS budget of the local government sector closed with a cash-based surplus of HUF 4.6 billion in 2011; however, the accrual-based balance (adjusted for the – remaining – HUF 59 billion one-off item related to county consolidation) was HUF –20.4 billion.[27] The balance is still negative even if we take the HUF 6.9 billion increase of trade payables into account. In spite of all this, the budget balance that is close to breaking even represents a considerable improvement over the HUF 232 billion deficit of the previous year. This allows us to conclude that local government financial management did not require significant financing in 2011.

Table 2 details that in 2011, local government budgets contained a financing need of HUF 61 billion, which was financed by borrowings of HUF 81 billion. This represented the lowest level of financing need, or borrowing for that matter, since 2005.

On the basis of the above, the conclusion of the State Audit Office of Hungary that the HUF 110 billion local government deficit planned in the 2011 central budget is showing a surplus due to the consolidation of county local government debts (State Audit Office of Hungary, 2012) can be complemented with the observation that in addition to this consolidation, several other factors also contributed to the improvement of the balance. This is supported by the fact even after the adjustments for consolidation effects that the sector closed with a balance more than 110 billion above plan in 2011.

The net borrowing of the local government sector was extremely low in 2011 at HUF 15.5 billion. The majority of financing revenues and expenditures is the result of the gross settlement of taking out and repaying short-term operating loans (overdraft facilities and liquid loans), with the balance of these transactions coming to HUF –8.5 billion. The repayment of long-term liabilities amounted to HUF 64 billion, while local governments took on a total of HUF 88 billion of long-term liabilities.

The total surplus increased local government reserves, the volume of which grew to HUF 407.1 billion by the end of

2011[28], which in turn continued to reduce – in addition to the effects of the consolidation of county local governments – the net indebtedness of local governments. The weight of local government debt volume in public debt dropped from 4.7 per cent to 4.4 per cent in 2011, and though the rate of exchange-rate adjusted drop was HUF 145.4 billion (which for the most part was linked to the consolidation of county local governments), the revaluated debt – as a consequence of the depreciation of the forint at the end of 2011 – only decreased by HUF 41.2 billion to HUF 1,208 billion *(see Chart 14)*.

CONCLUSION

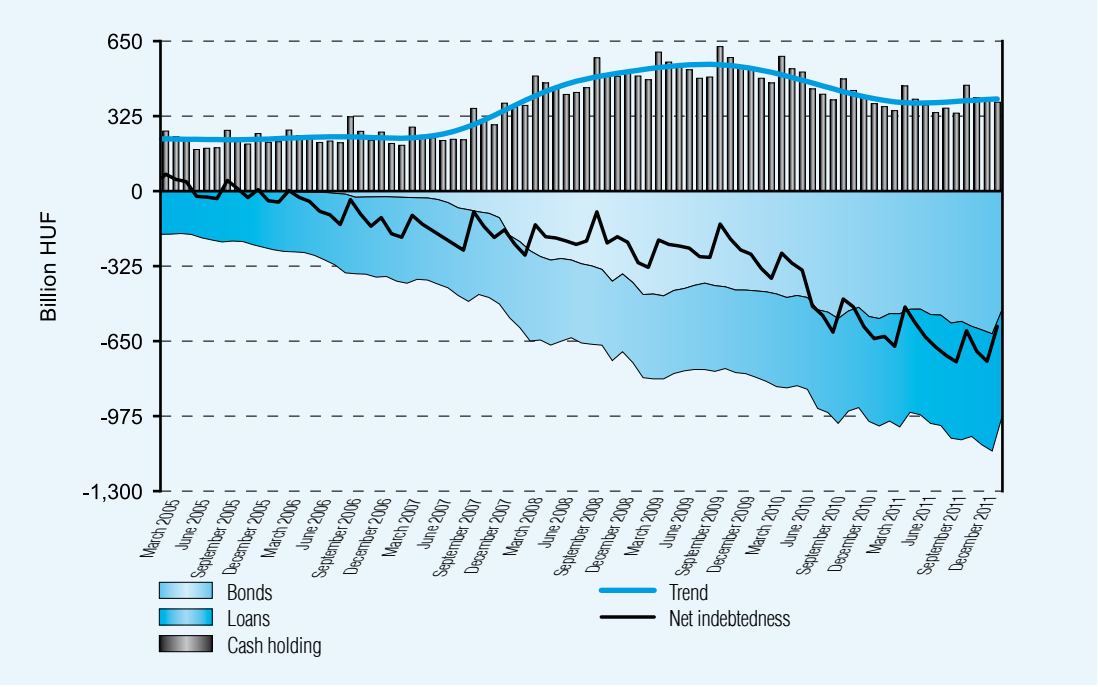
We can conclude that the 2011 fiscal year was of key importance for Hungarian local governments. The liabilities related to the debt volume primarily accumulated since 2006, the drop in state subsidies observed in past years and the decrease of free resources available for investments all required changes to be made by players of the sector as well as the central government. As far as the latter is concerned, it has become increasingly obvious since 2010 that the nature and extent of risks arising from the financial management of local governments requires active management.

Chart 15 shows that the budget deficit of local governments and the accumulated debt volume is directly consolidated into the performance of public finances. The budget balance of local governments improved substantially in 2011 compared to the year before, with net financing ability breaking even. The improvement was primarily due to the increase of operating and capital revenues. Within operating revenues, the ratio of state revenues increased, but the improvement of the balance also owes to the appearance of the crowding-out effect. The increase of capital revenues was in most part the result of the increasing of EU grants and own capital revenues. The fact that local government investments declined in 2011 had a significant impact on the budget. Due to the decline in renovations, the gap between net depreciation and net renovations of real properties continued to increase; in 2011, internal debt increased by HUF 25.7 billion to HUF 121.9 billion. Increasing internal debt could cause further tension in local government budgets as the utilisation of EU grants, which are one of the primary sources of renovations, for this purpose may narrow down and become limited in the 2014–2020 budget period.

The debt accumulated between 2004 and 2010 is not significant within the consolidated debt of public finances, yet in spite of this fact, it may still carry considerable indirect risk for public finances. In the eyes of investors, unpaid and non-performing local government liabilities could indirectly lead to the default of public finances. These events, along with the reorganisations and bank restructuring meant to manage them, could spill over to the government securities market (e.g. increasing country risk premium), thereby resulting in higher interest expenditures for public finances. The mass restructuring of the management of local governments, however, could improve the perception of the sector. Among the long-term effects, we must mention the transformation and reform of the revenue and expenditure side of the sector as initiated from above. As part of reform, the revenue and expenditure sides must be determined by taking current debt, the crowding-out effect and financial capacity (or the fine-tuned operating balance) into account. Another possibility is not to search for collateral for the increasing crowding-out effect in the budgets,

Chart 14

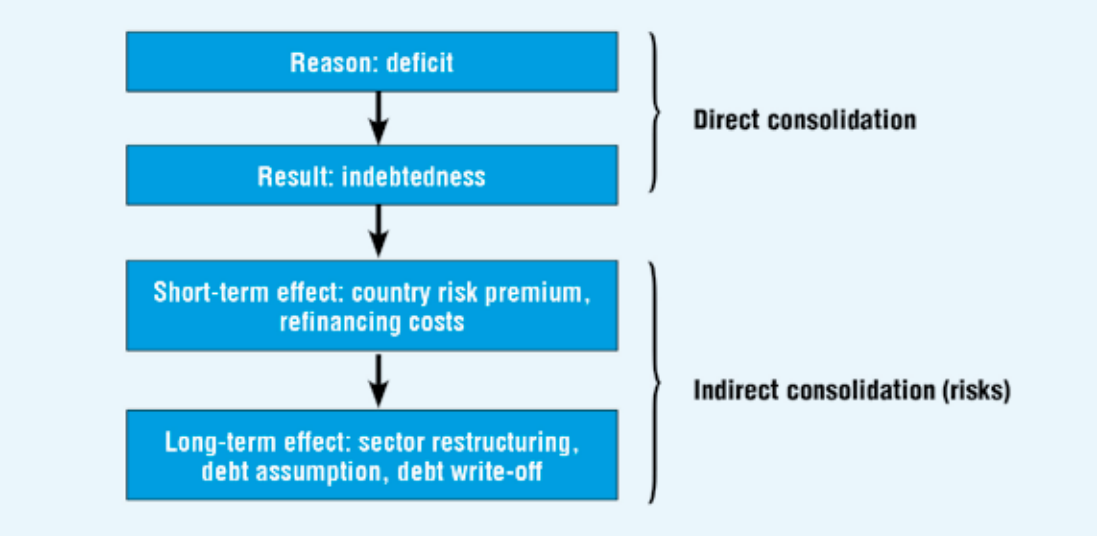
CLAIMS AND LIABILITIES OF LOCAL GOVERNMENTS TOWARDS THE BANKING SECTOR



Source: authors' own calculation and editing based on National Bank of Hungary data

Chart 15

THE EFFECTS OF LOCAL GOVERNMENT FINANCIAL MANAGEMENT ON PUBLIC FINANCES



Source: author's own editing

but rather to adapt the level of debt service to current budgets. At an individual level, this can be carried out during the debt settlement procedure, while at the sectoral level, during the partial or complete state consolidation of local government debt. Although the latter was previously unthinkable, at the end of 2011 the state did pay the total debt of local governments and entered into new agreements, and at the end of 2012, settlements with populations under 5,000 were looking at complete consolidation and the same is true for remaining local governments with debts in 2013. The institution of consolidation itself may be the source of many a debate, and experts are expected to analyse in detail what message such a measure communicates to local governments and the financial institutions financing them.[29] However, in spite of the fact that the provisions of the gst, which regulates local government indebtedness, became even tighter in September 2012, in the case of certain loans – for example loans related to EU projects – local governments were once again allowed to take on debt without government approval which, among other things, also means that there is still no complete control over the budget deficit of local governments. Due to the continued statutory and financial uncertainty surrounding the financial management of local governments, the public finance risks posed by local governments still exist.

Table 3

THE BUDGETARY EFFECT OF THE CONSOLIDATION OF COUNTY LOCAL GOVERNMENT DEBT PORTFOLIO

Nature of liability	Method of management (Act CLIV of 2011)	Volume	Budgetary effect
Cash holding	Article 2(1) The current account, deposit and securities portfolio of local governments and the institutions maintained by them (…) shall become state property on 1 January 2012.	58,763,538	No budgetary effect in 2011
Trade payables	Article 2(1) The state shall take over the budgetary institutions of county local governments along with trade payables (on 01.01.2012)	23,868,657	No budgetary effect in 2011
Long-term loans	The State of Hungary shall assume loan-based payment obligations.	14,667,002	Financing expenditures are not increasing; the repayment of loans shall be performed by the state when due.
Short-term loans		27,815,715	
of this: liquid loans (overdraft facilities, wage loans, advance loans) and short-term operating bond issuance	*Article 5(4) In the interest of debt assumption, county local governments shall transform their overdraft facilities and advance loans (including wage loans)—with identical conditions to the loan agreement to be transformed with respect to financial liabilities—into operating loans by 21 December 2011 at the latest, and the Hungarian State shall assume the payment obligations based on these loans.*	22,317,725	
Bonds	Article 5(2) Until 9 December 2011, these may be converted into a loan provision relationship—with identical conditions to the original security with respect to financial liabilities—in the absence of which, the Hungarian State shall assume the payment liability arising from the premature reconversion of the security as of 30 December 2011. This payment liability may be redeemed by the Hungarian State by taking out a new loan from the bond holder or by handing over government securities, with identical conditions with respect to financial liabilities.	122,800,847	The increase of financing expenditures due to reconversion prior to maturity. Since the state may redeem the reconversion with a new loan from the bond holder or by handing over government securities, from an accounting aspect, this is not considered debt assumption.*
Guarantees	Article 5(6) In 2012, the Hungarian State, as a single state guarantee, shall assume the guarantees of the county local government that are related to the assumed assets. These state guarantees do not burden the limit defined for the 2012 rate of one-off state guarantees; furthermore, the provisions of Article 33(6) of the Act on Public Finances need not be applied.	n/a	No budgetary effect, off-balance sheet items
Total		**189,152,221**	

Source: Author's own editing based on Act CLIV of 2011

Notes

[1] The date of the completion of the study: 3 December 2012

[2] The accounting techniques of public finances is presented in detail by Simon, 2011

[3] Government Financial Statistics. For more on the development of GFS statistics and the changes of applied methodology, see Győrffy et al. (2009) and Vasvári, (2012). It must be emphasised that in this case – in contrast with certain local government practices where they may be booked as revenues – residual amounts from the previous year are not taken into account. The utilisation/generation of reserves is illustrated by the total balance.

[4] Transfers related to investment activity (the purchasing and selling of government bonds) are also represented here.

[5] Vasvári, 2012.

[6] The reason for this is that even though "in an economic sense, deficit is a change in public debt" (Vigvári, 2005), of the two options available to finance budget deficit – the monetisation of the deficit and capital market funding – only the latter has relevance for local governments.

[7] Since no (local) government can spend/become indebted without consequences, ensuring the sustainability of the budget is of key importance. A key criterion of this is that "the net present value of the debt volume, in other words, the value of initial debt and the present value of future budget deficit cannot together exceed the present value of total future budget surplus" (Benczes – Kutasi, 2010).

[8] However, it is important to note that in case of debt service, financial capacity does not take payments to suppliers due into account, even though these debts also qualify as external financing.

[9] It should be emphasised that in such cases, due to the open foreign exchange position, the debt is exposed to exchange risk. In this case, the weakening of the forint may significantly increase (net) debt.

[10] We must note that the financing revenues generated by the bond issuing boom also failed to compensate for the shrinking of budgets.

[11] The paper – where necessary – narrows the period examined to the budgets of the period between 2004 and 2010, in order to provide the appropriate level of detail and for illustration purposes. This narrowing is also justified by the fact that the indebtedness of the sector began from 2004, and this is also when the parallel and gradual increase of assets and liabilities began to diverge.

[12] Net (excluding value added tax) real property renovation expenditures in the given period fell below the the (ordinary and extraordinary) depreciation value accounted for the real properties, with the accumulated difference amounting to HUF 96.2 billion between 2004 and 2010.

[13] We consider operating surplus its primary source, but renovations may also be carried out using EU grants as well as loans or bonds.

[14] Local government investments are examined in detail by Vasvári, 2013

[15] Key assets "directly serve the exercising of mandatory local government functions or powers", as well as others stipulated by law (nvtv). Non-marketable key assets shall not be alienated.

[16] In addition, unplanned expenditures of HUF 75–80 billion are also present in the financial management of the central government.

[17] T/4320 Bill on the amendment of Act LXV of 1990 on Local Governments, 9 November 2007

[18] For more details see Vasvári (2009) and Páles – Homolya (2011).

[19] The coverage of banks' local government claims for instance dropped from 75 per cent as recorded in 2000 (Gál, 2010) to 13 per cent at the end of the first half of 2011.

[20] The experiences of the debt settlement procedures of local governments are analysed in detail by Jókay – Veres (2009).

[21] The volume of short-term loans increased only by HUF 1.4 billion nominally in 2007 (to HUF 71.7 billion), while in 2008 it dropped by HUF 4.9 billion. Calculated at real value, the level of short-term loans shows a decrease between 2007 and 2009.

[22] This estimate may be distorted by the fact that loans may also contain moratoria on principal repayment (such as for instance the Hungarian Development Bank's "For a Successful Hungary" refinancing programme for local government infrastructure development).

[23] The review of the budgetary effects of Act CLIV of 2011 is contained in table 3.

[24] Thus we have indirectly also taken into account loans which – in contrast with the above – were repaid early by the state (e.g. the refinanced loans of the Hungarian Development Bank).

[25] The value thus reached is also supported by 2010 end-of-year volume data.

[26] The 14 per cent, 16.6 per cent and 3.2 per cent increase of estate tax revenues, tourism tax revenues and local business tax revenues respectively (the latter representing HUF 14.3 billion in itself) means that local governments still had leeway with respect to these taxes.

[27] As a result of several one-off items, the general government closed with an accrual-based surplus of HUF 1,211.7 billion in 2011. The official consolidated balance (HUF 175.6 billion) of local governments, not adjusted for the effect of the consolidation of the debt of county local governments, represents a weight of 14.5 per cent in the general government balance.

[28] It should be noted that the development of local government financial assets during the year displays seasonality, which is the result of the cyclical payment of local taxes (the repayment schedule of bank liabilities is also usually linked to the fulfillment of tax liabilities). Accordingly, cash holdings on average exceed the value adjusted for seasonality by 22.4, 25.1 and 7.61 per cent in March, September and December respectively.

[29] As a result of consolidation, the broader range of cost-bearers could exceed the narrower range of beneficiaries. For more on the issue of related moral hazard see Gál (2010), while in connection with soft budget constraint, see "Deficit" (1980) by János Kornai.

[30] The deviations in the case of certain calculated values are due to rounding.

[31] The study uses inflation to determine real value.

[32] Based on updated data of EDP reports from 24 October 2012

[33] For illustrative purposes, when representing public debt, we only showed 10 per cent of said debt.

[34] The deviations (net borrowing, reserves) in Chart 4 are due to the different methodology applied in generating the national accounts (SNA) that serve as the basis of the examination.

[35] Based on Report no. 44 of the State Treasury. In the case of 2011, actual debt service is represented adjusted for the effect of the debt consolidation of county local governments.

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