Local government and utility firms' debts

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Summary

The global financial crisis has affected the Croatian local public sector. In such circumstances, local government units' debts and borrowing should be approached with caution. The highly interwoven financial operations of local government units and their utilities indicate the need for analysis of consolidated financial statements of local governments and utility companies in order to gain an insight into the real financial "health" of local units. Accordingly, the main aim of this paper is to analyze the size and the structure of the consolidated (local government and utility companies) local public debt in Croatia. Accordingly, the paper presents the financial position of local government units supplemented with information on the financial operations of utility companies, with particular emphasis on the size and structure of their liabilities and gross and net debt. Although the current Budget Law does not require formal preparation of consolidated financial statements by local governments and their utility firms, consolidation is stipulated by International Public Sector Accounting Standards (IPSAS). The application of IPSAS regulations would be helpful in determining overall direct and indirect exposure of local government units arising from the financial operations of their utilities.

Keywords: local government units' debts, utility companies' debts, the consolidation of financial statements of local units and utility companies, Croatia

1 INTRODUCTION

The consequences of the financial crisis lasting since 2007 still to a great extent determine world financial and economic flows. In the post-crisis period, the results of the spillover of negative financial flows onto the economy are becoming ever more patent, the ultimate result ever more frequently being political instability in some countries. Potential creditors, in the new circumstances, are very sceptical, and the refinancing of existing debts with new borrowings is becoming increasingly difficult. The public finances of most countries have deteriorated, bringing about a reduction in the credit rating, which considerably exacerbates the situation. Accordingly, management of the public debt acquires additional importance. Along with the direct debt – created by the issue of bonds and by taking on loans – an increasing subject of interest is the indirect debt deriving from contingent liabilities.

The debt of units of local self-government[1] even in these turbulent times can hardly constitute a threat to the sustainability of public finances (according to Eurostat figures, local government debt in the EU ranges between 0.1 and 8.5% of GDP). Nevertheless, uncontrolled growth of local unit liabilities can have a considerable effect on their liquidity and indirectly on the fiscal sustainability of the local and overall public sector. In order for there to be a quality management of local public debt, particular attention needs to be directed to contingent obliga-

[1] For simplicity's sake, below the phrase local unit will be used, meaning unit of local self-government.

tions the materialisation of which is unpredictable and which are, precisely because of their uncertainty, totally neglected. Several research works have already been carried out in Croatia (Bajo, 1998; 2004; 2007; 2008 and Bajo and Primorac, 2009; 2010a) drawing attention to the importance of managing the contingent liabilities of local units. These investigations analyse in detail, from an empirical aspect, the trends and structure of contingent liabilities and show the importance of the expansion of their scope to the debt of the utility firms – which is particularly relevant with the growth of utility firm insolvency (Bajo and Primorac, 2010b) and the expected difficulties in the re-financing of existing debts.

Although theoretical and empirical research into this problem area is quite meagre, the reasons for and consequences of the supply of local public services via firms owned by the local units started being researched into in the USA in the middle of the last century. The motif for this research was simple – a large part of total revenue of local units in the USA referred at that time to the profit of the utility firms (DiLorenzo, 1982). Colberg (1955) thus in the fifties studied the measure to which the financing of local units by taxation of assets was replaced by financing via the utility firms. The author also raised the question of the justification for the accumulation of profit on the part of the utility firms, which was not in line with the principle of setting the price of public services according to the amount of their marginal costs and the financing of local units by the profit of the utility firms was just another means of concealed taxation (because of the apparently lower price of public services). Strauss and Wertz (1976) studied the connection between local taxes and the profits of utility firms and showed that the profit of the firms was a substitute for local units' own revenues. DiLorenzo (1982) expanded the Colberg (1955) hypothesis of the impact of the financing of local units via utility firms on the perception of the price of local public services and showed that the increase in the share of the profit of utilities in the local revenues resulted in a growth of local expenses – which is opposite to the findings of empirical research (Strauss and Wertz, 1976). Finally, De Hoog and Swanson (1988) deny there is any kind of impact from the financing of local units by the profits of utility firms on local expenditure and own revenue (assets taxes), confirming that there is no consensus on the kind and intensity of the interdependence of their financial operations.

Apart from that, DeHoog and Swanson (1988) reveal new aspects of the influence of the operations of utility firms on local units in the context of the fiscal crisis of the cities that shook the USA during the 1970s and say that utility firms can in turbulent times suck local budgets dry if the amount of user charges do not enable them fiscal self-sufficiency. Rubin (1988) studies the political implications of the foundation of utility firms and their impact on the budget of the local units and also discusses the relevance of the statement about the use of utility firms to avoid restrictions on the size of the revenue, spending and borrowing of local units, while Bennett and DiLorenzo (1982) refer to the lack of efficacy of legislative restrictions on the taxation and spending of local units because of the transfer of a large part of public activities to extra-budgetary (utility) firms. These firms are financed by user charges and revenue bonds without the guarantees of local units that do not need the support of the electorate. Although in theory independent, the extra-budgetary firms are generously subsidized from local budgets.[2] Subsidies are a hidden tax liability, and borrowing and spending of the extra-budgetary firms to a great extent drive out private consumption and investment. The authors emphasise that one of the basic reasons for the foundation of utility firms in the USA was to sidestep the fairly restrictive fiscal restrictions on the borrowing of local units. In answer to the comment on this work of Blewett (1984), Bennett and DiLorenzo (1984) give additional support to statements about the basic reasons for the founding of local unit utility firms that include avoidance of voter control and the creation of an opaque mechanism of deficit financing. The said firms (say the authors) often finance not only capital investment but also existing debts and operational costs, which is inefficient and not in accordance with the principle of benefits achieved, and also brings into question inter-generational equity.[3]

The objective of this paper is to analyse the debts of local units and utilities in Croatia. It is divided into six parts. After the introduction comes the second part in which the interrelationship of the financial operations of local units and utilities is described. Part three is devoted to an analysis of the financial position of local units and utilities and to a testing of the quality of financial operations, solvency, indebtedness, the burden of debt and debt servicing of the local sector debt. Gross debt and net debt are dealt with in the fourth part, while the fifth part of the paper studies the market aspects of debt. Some conclusions and recommendations are advanced in part six of the paper.

2 THE INTERRELATIONSHIP OF THE FINANCIAL OPERATIONS OF LOCAL UNITS AND UTILITY FIRMS

Thanks to the accelerated process of urbanisation, investments in capital infrastructure have become an important element in the improvement of the quality of life of the populations of local units and a key prerequisite for economic growth. In line with the rise in the standard of living of the population, the need for increased quality and diversity in the supply of the public services of local units also rises. Local units in Croatia often confide the supply of a certain segment of public services (utilities) to separate legal entities (utility firms) that they on the whole control via their share in equity. Utilities as defined by the Municipal Economy [Utility] Law (NN 26/03) are drinking water supply, waste water drainage and treatment, gas supply, thermal energy supply, mass transit, hygiene and cleansing, disposal of household waste, maintenance of public areas, maintenance of unclassified roads, retail markets, maintenance of cemeteries and crematoria, perfor-

[2] Politicians have always attempted to hide the size of subsidies to utility firms; in 1962 Governor Rockefeller had the accounting laws in the state of New York changed so that subsidies to utilities be excluded from the budget.

[3] For more on the principle of benefits and intergenerational equity see Rosen and Gayer (2010).

mance of funeral services, chimney sweeping services and street lighting. These utility services can be carried out by a company, a public institution and a service founded by a local unit and also by a legal or natural entity on the basis of a concession contract or a contract confiding such utility activities to an entity. Funding for the performance of utility activities is provided from the price of utility services, utility charges, the budget of the local unit and other sources according to separate regulations. A look at the structure of shares and equities presented in the balance sheets (table 1) shows the intensity of public unit ownership of public sector companies.

TABLE 1
Shares and equities of local units – inland (in million kuna)

	Scope	Shares and equities (total)	Banks and other financial institutions in public sector	Public sector firms	Inland banks and other financial institutions outside the public sector	Inland firms outside the public sector
		(1+2+3+4)	(1)	(2)	(3)	(4)
2008	Cities	11,441	1	9,927	46	1,466
	Municipalities	1,720	5	1,434	31	250
	Counties	635	0	290	0	345
	Total	13,796	6	11,651	77	2,061
2009	Cities	11,731	1	10,022	47	1,661
	Municipalities	1,931	2	1,632	37	260
	Counties	638	0	302	0	336
	Total	14,300	2	11,957	84	2,257

Source: Author, on the basis of financial reports of local units for 2008 and 2009.

The total bookkeeping value of shares and equities that local units have in other economic operators rose from 13.8 billion kuna in 2008 to 14.3 billion kuna in 2009, the structure (accounting for about 85%) being dominated by shares and equities in public sector companies. The structure of the equity portfolio of local units shows the potential interdependence of the financial operations of local units and utility firms. This statement can be verified by a review of subsidies and capital assistance of local units to public sector companies.

The total amount of subsidies of local units to companies in the public sector increased in the observed period from 1.06 to 1.15 billion kuna, the biggest part of the subsides being received by utility firms from the cities (over 95%). The amount of capital assistance in the same period reduced and the total amount of assistance of local units to utility firms remained at the level of about 1.3 billion kuna a year.

In order to obtain an overview of the scale of the financing of utilities with the budgetary resources of local units, it is useful to consider the proportion of revenue from grants and subsidies in the operational revenue of the utility firms using the example of the firms of Zagrebački holding d.o.o.

TABLE 2
Subsidies and capital aid of local units to public sector companies (in million kuna)

	Cities		Municipalities		Counties		Total	
	2008	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**
Subsidies	1,010	1,102	37	38	10	10	1,057	1,150
Capital assistance	58	32	23	18	179	133	260	182
Total	1,069	1,134	60	56	188	143	1,317	1,333

Source: Author, on the basis of financial reports of local units for 2008 and 2009.

TABLE 3
Operating revenue of utility firms (in million kuna)

	2008	**2009**
Total operating revenue of utility firms (UF)	9,058	9,200
Operating revenue of Zagrebački holding d.o.o. (ZGH)	3,886	4,343
Subsidies to public sector firms (PS)	1,057	1,150
Revenue from grants and subsidies ZGH	805	852
Subsidies to PS firms in operating revenues of UF (%)	11.7	12.5
Grants and subsidies in operating revenue of ZGH (%)	20.7	19.6

NB: For the necessity of analysis (because data are unavailable) it is assumed that all the subsidies to companies in the public sector are received by utility firms, which probably is not entirely accurate. Still the assumption is fairly relevant since in 2009 ZGH alone took 74% of the total amount.

Source: Author, on the basis of consolidated financial reports of firms of Zagrebački holding d.o.o. for 2009 and the financial reports of local units for 2008 and 2009.

Total operational revenues of the consolidated utility sector (all the utilities together) came in 2008 to a bit more than 9 billion kuna (table 3), over 1 billion kuna of operating revenue relating to subsidies that are on the whole recorded at the position *other operational revenue*. A similar structure of operational revenues is observable in 2009 as well. The firm Zagrebački holding d.o.o. is by far the biggest utility firm in Croatia, and its operations need devoting extra attention. The operational revenue of ZH in 2009 exceed 47% of total operating revenue of all other utilities put together, and its operations in the same year were assisted with 74% of the total amount of grants and subsidies of local units to utility firms. Revenue from grants and subsidies of the firm Zagrebački holding d.o.o. are to a very great extent obtained from the city of Zagreb, and they include financial aid from the budget of the city for purposes approved by the Assembly[4] as well as financial aid for debt servicing (principle, interest, charges).

The interdependence of the financial operations of local units and utility firms is additionally confirmed by the fact that grants and subsidies from the budgets of local units make up over 10% of the operational revenue of the utility firms, with a perceptible trend to a further increase of this share.

2.1 BORROWING OF LOCAL UNITS AND UTILITY FIRMS

After an analysis of the interrelation of the financial operations of local units and utility firms and an indisputable connection and indeed dependence of utility firms on transfers from the budgets of local units has been proved, the question arises as to the influence of the financial operations of utility firms on the financial health of local units (particularly in the borrowing context). Accordingly, below there will first be an interpretation of the legislative background for the borrowing of local units and utility firms, after which empirical research into the potential effects of the financial operations of the utility firms on the financial stability of the entire local public sector will be conducted.

The borrowing of local units and utility firms in the Republic of Croatia is governed by the Budget Law (NN 87/08) and the annual execution of the central government budget of the Republic of Croatia laws. Local units can borrow by taking credit lines, loans and issuing bonds. Also laid down are individual and cumulative (aggregate) limitations on borrowing by local units (table 4).

TABLE 4

Conditions for local unit borrowing from 1996 to 2010

<table>
<tr><th>Year</th><th>Permissible purpose for borrowing</th><th>Annual restriction on borrowing (annual liability)</th><th>Additional restriction (% of operating revenue of all local units)</th></tr>
<tr><td>1996-1997</td><td rowspan="5">reconstruction and development (financing of capital projects)</td><td>30% of budgetary expenditures</td><td rowspan="2">does not exist</td></tr>
<tr><td>1998-2002</td><td rowspan="4">20% of revenue made in the year preceding the year in which the borrowing is undertaken</td></tr>
<tr><td>2003-2004</td><td>3</td></tr>
<tr><td>2005-2006</td><td>2</td></tr>
<tr><td>2007-2010</td><td>2.3</td></tr>
</table>

Source: Author's systematisation of data from Official Gazette (NN).

[4] About 95% of the total amount of grants and subsidies to Zagrebački holding d.o.o. refers to subsidies from Zagreb city to Zagrebački električni tramvaj (ZET). In 2006 the city gave the right to subsidised transportation to sensitive groups (school children and students, the disabled, pensioners over 65 and families of dead patriotic war defenders), and via a contract to jointly finance passengers in mass transit guaranteed to cover the difference between the economic and the privileged price of ZET transportation. The criteria for subsidised transport were met in October 2009 by about 353,000 people.

According to the Budget Law (NN 87/08) a legal entity that is directly or indirectly majority owned by a local unit and an establishment the founder of which is a local unit can take on long-term debt only for investment with the consent of the majority owner or founder. At the same time, the scope for possible borrowing by local units subject to budgetary constraints includes consents for:

- borrowing of legal entities directly or indirectly owned by local units that in the annual financial reports for the year preceding the year in which they have taken on debt have shown a loss;
- the borrowing of legal entities directly or indirectly majority owned by a local unit that take on debt in the period of two years from the day of the entry of their foundation into a court register;
- the borrowing of an establishment or institution the founder of which is a local unit.

The legislative provisions clearly show the possibility of the unlimited and unhindered borrowing of utility firms on condition that in the year preceding the borrowing they did not make a loss and that more than two years has passed since the day of the entry of their founding in the court register. In the giving guarantees section, the provisions of the law nevertheless prevent imprudent behaviour and a local unit can give a guarantee to a directly or indirectly majority owned legal entity and an institution of which it is the founder for the legal entity or institution to meet its liabilities, but the guarantee issued must be included in the scope of the possible borrowing of a local unit. Table 5 shows the cumulative budgetary restriction and the annual amount of direct borrowing done by local units in given years.

Table 5
Budget constraints on the borrowing of local units in the years 2005-2010 (in million kuna)

	2005	2006	2007	2008	2009	2010
Determined % of operating revenue	2	2	2.3	2.3	2.3	2.3
Budgetary restriction	298	330	430	499	542	516
Annual amount of direct borrowing*	314	487	520	564	496	604

**The annual amount of direct borrowing represents the total sum of values of receipts from the sale of bonds and receipts from the borrowing of all local units in the given year.*

Source: Author's calculation from figures from the financial reports of local units for 2004, 2005, 2006, 2007, 2008, 2009 and 2010.

Since local units have a limited ability to borrow, they borrow via the utility firms, thus sidestepping the budgetary constraints. The borrowing of firms of Zagrebački holding d.o.o. is a typical example of such a way of getting into debt. The cumulative budgetary restriction on the borrowing of local units in 2007 came to 430 million kuna (table 5) and yet in the same year Zagrebački holding issued 300 million euro worth of corporate bonds – five times as much as it was possible for the whole of the local public sector to borrow in that year. Although this kind of borrowing is legitimate, for the operations of local units and utility firms are not formally connected, the repayment of the debt of the firm Zagrebački holding d.o.o. is in large part assisted by transfers from the budget of the city of Zagreb, as described in detail in the previous chapter. It is interesting to observe that the local units in all the observed years have taken on debt to an extent greater than allowed them by the budgetary restrictions. Only 2009 was an exception, but when the sum of 190 million kuna the utility firms borrowed was added to the debt incurred by the local units then the budgetary restriction was exceeded by 144 million kuna or 27%.

Box 1
Accountancy aspects of the consolidation of financial reports of local units and companies they own

The existing Budget Law (NN 87/08) formally does not require the composition of consolidated financial accounts for local units and utility firms. Nevertheless, the accounting basis for the implementation of consolidation has been set up by International Public Sector Accounting Standards – IPSAS. A separate accounting standard (IPSAS 6), which mainly draws on International Accounting Standard (IAS) 27 prescribes *the consolidation of financial reports and accounting for controlled entities*. This standard relates to the preparation and presentation of consolidated financial reports and accountancy of entities that are under the control of public sector institutions (excluding public sector companies). The standard prescribes the obligation to compose and present consolidated financial reports in special reports of companies that have a controlling position. Although public sector companies do not need to harmonise their financial reports to this standard (although they do have to harmonise them with international accounting standards, to which all companies are subject irrespective of whether they are in the private or the public sector), the provisions of these regulations are applied in cases when a public sector entity that is not a company (for example a local unit) controls one or more companies (for example utility firms) from the public sector. In this case, financial reports are consolidated in separate reports of the controlling entity. Control in the sense of this standard implies the power to manage the financial and business policy of one entity by another entity in such a way that the controlling entity has some benefit from the activity of the controlled entity. In addition, it is considered that there is also control in a case in which the controlled entity takes on debt with a guarantee from the controlling entity, which is particularly relevant for the identification of control of local units over utility firms in Croatia. Consolidation is carried out not only by the stated conditions being met but also by the items of financial reports (assets, liabilities, capital, revenue and expenditure) of the controlled and control entity being aggregated, with the elimination of items prescribed by the standard.

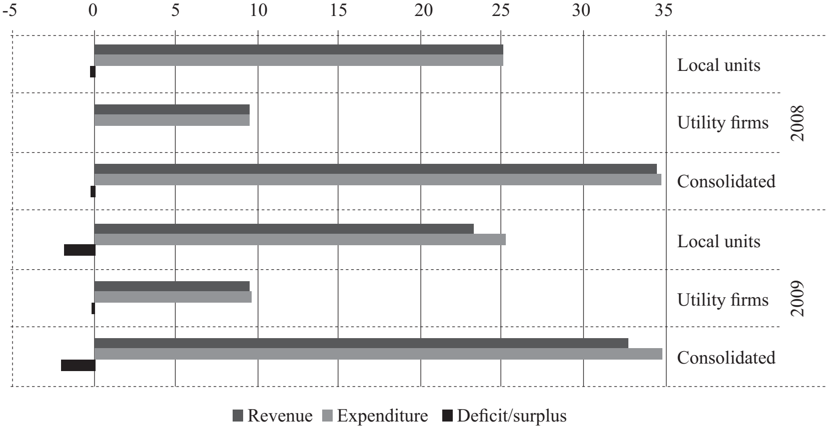
The negative consequences of utility firm overload with debt do not relate only to the probability of the transformation of local unit latent into direct liabilities. Even much more minor consequences are considerable enough for the borrowing of utility firms to be addressed with particular caution. Utility firm insolvency can result in increased prices of local unit borrowing, because of the interconnections of their financial operations, and indirectly affect local unit creditworthiness (in more details in chapter five). Although bodies of local units have no say when the financial plans of the utility firms are being adopted, because of the interweaving of the operations of the local units and the utility firms, it is necessary to consider a united or consolidated financial picture of the local units and the firms they own. This fact gains in importance in current economic conditions that threaten a rise in utility sector insolvency as well as politically unpopular measures of raising the prices of public services (Bajo and Primorac, 2010b). For these reasons it is necessary as soon as possible to mandate the obligation to consolidate the financial reports of local units and their utility firms and to put the financial planning of the firms within the jurisdiction of bodies of local units.

3 FINANCIAL POSITION OF LOCAL UNITS AND UTILITY FIRMS

The current financial crisis has been reflected in the operations of local units and companies they own. Aggregate revenues of local units were reduced from 25 billion kuna to 23.3 billion in 2009. In the same period expenditures remained unchanged (25.3 billion kuna), which resulted in an increase in the deficit from 257,000 to almost 2 billion kuna, and in combination with the deficit of the utility firms the deficit of the consolidated local sector in 2009 came to 2.1 billion kuna.[5]

Graph 1

Financial operations of the local public sector of the Republic of Croatia (in billion kuna)



Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009.

Financial operations. The ratio of current earnings and total earnings of consolidated local sector (table 6) rose from 0.94 in 2008 to 0.96 in 2009. Since according

[5] Utility firms covered by the analysis in the context of the work include 159 companies that supplied the Financial Agency financial reports for 2008 and 2009. Some of the companies from Dubrovačko-neretvanska, Varaždinska, Splitsko-dalmatinska and Šibensko-kninska counties that were not available at the time this paper was written are excluded from the coverage.

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to Schaeffer (2000) a value of this indicator greater than 0.65 is considered favourable, the conclusion must arise that the structure of revenues of the consolidated local sector is, with respect to this indicator, appropriate. However, the indicator of net results that is the ratio of total expenditure and total revenue shows certain problems in operations caused on the whole by a reduction in revenue under the impact of the economic crisis. This is manifested in the rise of the value of this indicator from 1.01 to 1.06, where it is desirable that its value be lower than 0.95 (Schaeffer, 2000). Invoking the reference values of the same source (<0.95 – favourable; >1 – unfavourable), the ratio of operating expenditures and current earnings can be characterised as favourable, although the rise in this indicator from 0.85 to 0.9 suggests the appearance of an unfavourable trend. For some categories of expenditure per capita there are no optimal or critical values, but it is logical that there should be an effort to minimise the values of these indicators. Although the total expenditures of local units per capita fell from 5,704 to 5,693 kuna, an increase in the expenditures of the utility firms resulted in an increase in the total per capita expenditures of the consolidated local sector from 7,848 kuna in 2008 to 7,876 kuna in 2009. Accordingly, the operational expenditures of the consolidated local sector rose from 6,278 kuna in 2008 to 6,434 kuna per capita in 2009.

Table 6
Financial operations of local units and utility firms

			2008	
Numerator	**Denominator**	**Local units**	**Utility firms**	**Total**
Current revenue	Total revenue	0.74	0.95	0.94
Total expenditure	Total revenue	1.01	1.00	1.01
Operating expenditure	Total expenditure	0.74	0.95	0.80
Operating expenditure	Current revenue	0.80	1.00	0.85
Total expenditure	Population	5,704	2,144	7,848
Operating expenditure	Population	4,235	2,043	6,278
			2009	
Current revenue	Total revenue	0.96	0.96	0.96
Total expenditure	Total revenue	1.08	1.01	1.06
Operating expenditure	Total expenditure	0.77	0.94	0.82
Operating expenditure	Current revenue	0.86	0.99	0.90
Total expenditure	Population	5,693	2,182	7,876
Operating expenditure	Population	4,374	2,060	6,434

Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009, and data from the Croatian Bureau of Statistics concerning population estimates.

Solvency of the consolidated local sector in the period under observation (2008 and 2009) is on the whole weakened because of the poor solvency position of the utility firms. However it should be emphasised that the aggregate solvency of local units is good enough for it to be quite high even after consolidation. Although the ratio of current assets to short-term liabilities (table 7) for local units fell from 8.41 to 6.87 (and from 428 to 2.76 for the consolidated local sector) these values are far greater than the 1 that Schaeffer (2000) gives as the critical value. From the aspect of control of finances the ratio of current assets and short-term liabilities greater than 1 shows the existing of net working capital and the fact that part of the current assets is financed from long-term sources, which is line with the golden rule of financing.[6] The ratio of money and short-term liabilities and money and current expenditure reflects the measure in which a given entity is capable of financing short term liabilities and current expenditure with the most liquid assets. The ratio of money and short-term liabilities of local units fell from 1.12 to 0.67; or from 0.52 to 0.36 for the consolidated local sector. This means that entities of the consolidated local sector in 2009 were on average able to meet 36% of short-term liabilities almost instantly. By analogy, in 2009 the local units were in 2009 able to meet about 13% of current expenditure with the most liquid assets, but the utility firms only about 5%, for which reason the ratio of money and current expenditures for the consolidated local sector comes to 0.1.

Table 7
Solvency of local units and utility firms

			2008	
Numerator	**Denominator**	**Local units**	**Utility firms**	**Total**
Current assets	Short-term liabilities	8.41	1.48	4.28
Total surplus	Current revenue	-0.02	0.00	-0.01
Cash	Short-term liabilities	1.12	0.11	0.52
Cash	Current expenditure	0.18	0.05	0.14
			2009	
Current assets	Short-term liabilities	6.87	1.16	3.76
Total surplus	Current revenue	-0.08	-0.01	-0.06
Cash	Short-term liabilities	0.67	0.10	0.36
Cash	Current expenditure	0.13	0.05	0.10

Source: Author, on the basis of financial reports of local units and utility firms for 2008 and 2009.

Below, the indebtedness of the local sector in 2008 and 2009 is analysed by a computation and interpretation of the most important financial indicators.

The ratio of total annual debt servicing and current revenue (table 8) for the consolidated local sector was stable and in both years observed came to 0.03, a value of this coefficient less than 0.05 being considered satisfactory, while values grea-

[6] The golden rule of financing says that fixed assets should be financed from long-term sources and current assets from short term or at least partially long-term sources (in the case of positive working or net working capital).

ter than 0.15 are unfavourable (Schaeffer, 2000). Although in 2009 the ratio for utility firms came to 0.82 – because of the smaller relative importance in the consolidated picture – the value of this indicator for the aggregate (consolidated) position of local units and utility firms came to a very good 0.04 in both of the years observed.

TABLE 8
Indebtedness of local units and utility firms

		2008		
Numerator	**Denominator**	**Local units**	**Utility firms**	**Total**
Total annual repayment of debt	Current revenue	0.03	0.04	0.03
Total annual repayment of debt	Current financial assets	0.03	0.21	0.04
Long-term debt	Current revenue	0.11	0.94	0.34
Long-term debt	Total revenue	0.08	0.89	0.32
Long-term debt	Total assets	0.04	0.21	0.10
		2009		
Total annual repayment of debt	Current revenue	0.02	0.05	0.03
Total annual repayment of debt	Current financial assets	0.02	0.82	0.04
Long-term debt	Current revenue	0.13	1.08	0.41
Long-term debt	Total revenue	0.12	1.04	0.39
Long-term debt	Total assets	0.04	0.23	0.10

Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009.

Burden of debt and burden of debt servicing. Although the financial position, like the solvency and indebtedness of the consolidated local sector, is in relatively acceptable outlines, a negative effect of the consolidation of local units with the utility firms is perceptible in most of the financial indicators observed. The situation is particularly bad in the context of the debt and the annual debt repayment that is a burden on every inhabitant of the given administrative and territorial unit.

The total direct per capita debt of local units (table 9) rose from 601 kuna in 2008 to 652 kuna in 2009. The potential debt that covers guarantees and due outstanding liabilities of local units rose in the period from 1,035 to 1,043 kuna and so the total (direct and indirect) debt of local units in 2009 reached the level of 1,694 kuna per capita. If this debt is increased by potential liabilities that derive from the borrowings of the utility firms the total debt of consolidated local sector per capita in 2009 came to 3,277 kuna, with over 48% of the debt relating to the debt of the utility firms. In other words, if the whole debt of the consolidated local sector were to fall suddenly due for payment, every inhabitant of the Republic of Croatia would have to provide 3,277 kuna.

Table 9

Per capita burden of debts of local units and utility firms (in kuna)

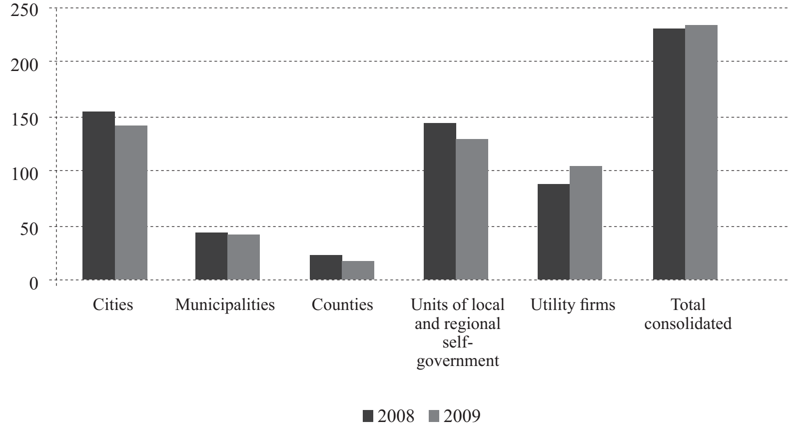
No.	Scope	2008	2009
1	Cities	703	745
2	Municipalities	193	219
3	Counties	52	67
4	Units of local and regional self-government*	601	652
5	Active guarantees	751	590
6	Due and outstanding liabilities	284	451
7	Total contingent (5+6)	1,035	1,042
8	Total (4+7)	1,636	1,694
9	Utility firms	1,540	1,583
10	Total consolidated (8+9)	3,176	3,277

**This item is not the aggregate of debts of cities, municipalities and counties but an average value of the total unit of units of local and regional self-government per capita in the Republic of Croatia.*

Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009, and data from the Croatian Bureau of Statistics concerning population estimates.

Graph 2

Per capita burden of the payment of the debts of local units and utility firms (in kuna)



Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009, and data from the Croatian Bureau of Statistics concerning population estimates.

The burden of the total annual debt servicing of local units (graph 2) was reduced from 144 kuna in 2008 to 130 kuna per capita in 2009. The inhabitants of the cities were most burdened by total annual debt servicing in 2009, paying 142 kuna, and after them the inhabitants of municipalities, paying 43, and county inhabitants, only 18 kuna. The trend for the burden of total annual repayment of debt of utility firms per capita to grow is cause for concern, increasing in 2009 (as compared with the previous year) by over 20%. The costs of the annual debt servicing of the consolidated local sector in 2009 came to 236 kuna per capita.

4 GROSS AND NET DEBT OF LOCAL UNITS AND UTILITY FIRMS

Local units in Croatia take on debt on the whole with credit arrangements with commercial banks on untransparent and unfavourable terms. The total direct debt of local units (table 10) rose from 2.7 billion kuna in 2008 to 2.9 billion kuna in 2009, the share of loans in the total structure of the debt rising from 77.8% to 79.3%. In the same period the state of active guarantees was reduced from 3.3 to 2.6 billion kuna – which was compensated for by the rise in due outstanding liabilities of 0.7 billion kuna and the total indirect debt held steady at the level of 4.6 billion kuna. Also rising in the structure of direct liabilities of the utility firms was the share of loans, and the total debt of utility firms increased from 6.8 to 7 billion kuna, that is, from 2 to 2.1% of GDP. The total direct debt of local units and utility firms went up in the same period from 9.5 to 9.9 billion kuna and the total debt (direct and indirect) of the consolidated local sector in 2009 came to 14.5 billion kuna or 4.4% of GDP.

TABLE 10
Gross debt of the consolidated local sector

			Bonds	Loans	Direct debt	Guarantees	Due outstanding liabilities	Indirect debt	Total debt
2008	Local units	billion kn	0.6	2.1	2.7	3.3	1.3	4.6	7.3
		% GDP	0.2	0.6	0.8	1	0.4	1.3	2.1
	Utility firms	billion kn	2.4	4.4	6.8				6.8
		% GDP	0.7	1.3	2				2
	Consolidated	billion kn	3	6.5	9.5	3.3	1.3	4.6	14.1
		% GDP	0.9	1.9	2.8	1	0.4	1.3	4.1
2009	Local units	billion kn	0.6	2.3	2.9	2.6	2	4.6	7.5
		% GDP	0.2	0.7	0.9	0.8	0.6	1.4	2.3
	Utility firms	billion kn	2.4	4.6	7				7
		% GDP	0.7	1.4	2.1				2.1
	Consolidated	billion kn	3	6.9	9.9	2.6	2	4.6	14.5
		% GDP	0.9	2.1	3	0.8	0.6	1.4	4.4

Source: Author, on the basis of the financial reports of local unit and utility firms for 2008 and 2009.

Due outstanding liabilities of local units on the whole refer to liabilities for material expenditure and liabilities for the procurement of non-financial assets, while guarantees of local units are on the whole for the purpose of securing the payments of utility firms' debts. By a view of the condition of active guarantees and debts of utility firms, it is possible to acquire an impression of the role of the guarantees of local units in the borrowing of utility firms.

Table 11

Debt of utility firms covered by local unit guarantees

Year	Stock of active guarantees (billion kuna)	Debt of utility firms (billion kuna)	Amount of debt covered by guarantees (%)*
2008	3.3	6.8	48.7
2009	2.6	7.0	37.3

**Probably not the entire amount of the guarantees of local units is meant for utility firms and so the values given need treating with caution.*

Source: Author, on the basis of the financial reports of local units and utility firms for 2008 and 2009.

A little less than half of the overall debt of the utility firms in 2008 was covered by guarantees of local units (table 11), while the share of debts collateralised with guarantees in 2009 was reduced to almost 37%. Guarantees of local units clearly have a very important role in the borrowing of utility firms. This additionally confirms the hypothesis about the pronounced interdependence in the operations of local units and utility firms, which steps up the need for formal consolidation of their financial reports and a greater role of the bodies of local units in the financial management of the utility firms.

Table 12

Net debt of consolidated local sector (in billion kuna)

		Financial assets	Cash in bank and treasury	Deposits and others	Loans (given)	Bonds	Financial liabilities	Liabilities for bonds	Liabilities for loans	Net financial assets
2008	Cities	2.3	1.5	0.5	0.2	0.0	2.2	0.6	1.6	0.1
	Municipalities	1.0	0.7	0.2	0.1	0.0	0.3	0.0	0.3	0.7
	Counties	0.8	0.2	0.2	0.4	0.0	0.2	0.0	0.2	0.5
	Total local units	4.0	2.4	0.9	0.7	0.0	2.7	0.6	2.1	1.4
	Utility firms	2.4	0.5	1.9	0.0	0.0	6.8	2.4	4.4	-4.4
	Total consolidated	6.4	2.9	2.8	0.7	0.1	9.5	3.0	6.5	-3.1
2009	Cities	1.6	0.8	0.6	0.2	0.0	2.3	0.6	1.7	-0.7
	Municipalities	0.7	0.4	0.2	0.0	0.0	0.3	0.0	0.3	0.4
	Counties	0.8	0.1	0.3	0.4	0.0	0.3	0.0	0.3	0.5
	Total local units	3.1	1.4	1.1	0.6	0.0	2.9	0.6	2.3	0.2
	Utility firms	1.1	0.4	0.6	0.0	0.0	7.0	2.4	4.6	-5.9
	Total consolidated	4.2	1.8	1.7	0.6	0.1	9.9	3.0	6.9	-5.7

Source: Author, on the basis of financial reports of local units and utility firms for 2008 and 2009.

Net financial assets are calculated as the difference between financial assets and financial liabilities (IMF, 2001) and are one of the relevant indicators of solvency (financial health) of public sector entities.

Financial assets of local units comprise cash in bank and in the treasury, deposits, loans given and securities, while financial liabilities are liabilities for loans and for bonds. Net financial assets of local units fell in 2009 from 2008 from 1.4 to 0.2 billion kuna (table 12). The reason for this is the increased in liabilities for loans by 0.2 billion kuna with a simultaneous reduction of financial assets by 0.9 billion kuna. Although the trend of the value of net financial assets is downwards, positive values of this indicator do reflect a satisfactory condition that is considerably changed by consolidation with the utility firms. Liabilities for loans of the utility firms increased in 2009 by 0.2 billion kuna with a simultaneous reduction in financial assets brought about by a drain of deposits amounting to 1.3 billion kuna. These changes in the financial assets and liabilities of the utility firms resulted in a reduction of net financial assets from -4.4 to -5.9 billion kuna, which by consolidation with local units to a great extent spoils the idyllic image of the financial position of the local public sector, the net financial assets of which fell by 2.6 billion kuna (from -3.1 to -5.7 billion kuna) in a mere year.

The existing condition of the net financial assets of the utility firms is a threat to the financial position of the local units that with subsidies and grants help the operations of the utility firms. The exposure of local units to the poor financial operations of the utility firms has an effect on the credit risk of local units, which can ultimately reflect negatively on their borrowing costs and in conditions of financial instability of wider proportions also on the fiscal sustainability of the entire local public sector.

5 MARKET ASPECTS OF THE DEBTS OF LOCAL UNITS AND UTILITY FIRMS

The direct debt of Croatian local units is mainly unmarketable (table 10). Present in the financial market are the municipal bonds of just 5 cities – Zadar, Split, Rijeka, Osijek and Vinkovci – the bonds of Zadar maturing in 2011, and those of Split, Vinkovci and Osijek maturing in 2017 at the latest (table 13). All issues are secured by the budgetary revenues of the cities, while the issued bonds are used to finance capital investment projects of communal infrastructure, education, culture and sport. In the context of the currency structure of the bonds issued it is practically incredible that 5 out of 7 issues are paid out in the kuna equivalent of amounts in euro. Since local units do not on the whole have revenues in euro, these characteristics of the bonds issued indicate imprudent financial management and poor planning of borrowing.[7] The basic objective of local unit borrowing should be to ensu-

[7] If local units were to earn a large part of their revenues in euro, then borrowing in euro – aiming to harmonise the currency structures of receipts and outlays – would be prudent in the context of protection against exchange rate risk.

re the necessary financial means with the minimum costs and as little exposure to risk as possible, not the making of profits by exchange rate fluctuations. Taking on exchange rate risk in this way is entirely unfounded and future issues of municipal bonds should absolutely be denominated in the domestic currency.

Table 13
Local public sector bonds issued, July 2011

City	Nominal (in millions)	Currency	Issue price	Issue date	Maturity	Coupon (in %)	Coupon payment
Domestic issues							
Zadar	18.5	EUR	103.08	20/8/2004	1/9/2011	5.50	Half-yearly
Split 2013	8.0	EUR	99.75	24/7/2006	24/7/2013	4.56	Half-yearly
Split 2015	8.1	EUR	99.19	27/11/2007	27/11/2015	4.75	Half-yearly
Split 2017	8.2	EUR	100.00	8/7/2008	8/7/2017	6.00	Half-yearly
Rijeka	24.6	EUR	-	28/6/2006	18/7/2016	4.13	Half-yearly
Osijek	25.0	HRK	99.51	23/10/2007	30/10/2017	5.50	Half-yearly
Vinkovci	42.0	HRK	99.83	10/10/2007	23/10/2017	5.50	Half-yearly
International issues							
Zagrebački holding	300.0	EUR	99.32	3/7/2007	10/7/2017	5.50	Yearly

Source: Bloomberg, 2011.

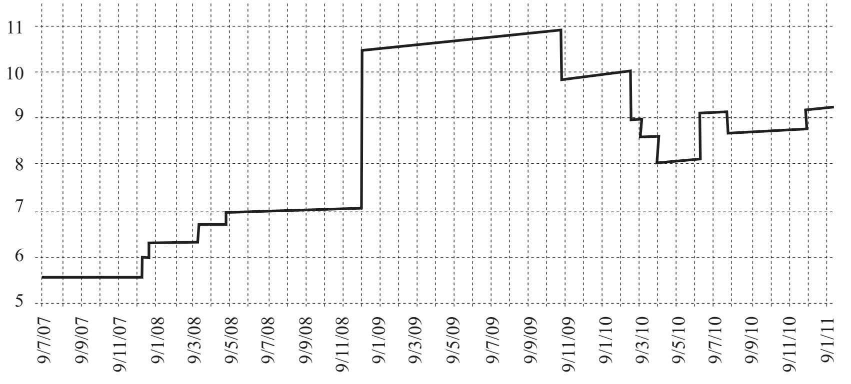
The only "utility firm" bonds listed on the stock exchange are the already mentioned ten-year corporate bonds of Zagrebački holding d.o.o. of 2007, nominal value 300 million euro with an interest rate of 5.5%. The issue was sold on the international financial market at a discount (at a price of 99.32) and the purpose of the issue was to finance investment projects. Trade in this bond on the secondary market is very sporadic, but its price is a fairly good reflection of major market trends and changes in assessment of the operations of the corporation (the debtor). Graph 3 shows yield to maturity on the bond of Zagrebački holding d.o.o. just before and during the financial crisis.

Yield to maturity on bonds of Zagrebački holding in the period from July 9, 2007 to January 21, 2011 ranged from 5.59% at the beginning of the period to a maximum of 10.96% in the third quarter of 2009. At the end of 2008, yield to maturity began to surge, which was to be expected because of the extent and depth of the crisis as well as the fact that on November 20, 2008, Moody's cut the rating of the Holding from Baa2 to Baa3, and because of the strategic importance of the Holding in the operations of the city of Zagreb also cut the city's rating from Baa1 to Baa2. A cut in the rating would certainly have been reflected in the yield of the municipal bond if it had been listed on the financial market, which would considerably have increased the costs of borrowing for the city. This confirms once again the fact that the operations of local units and utility firms are tightly connected, i.e.

that imprudent financial operations in the utility firms can to a great extent disturb the stability of local public finances.

Graph 3

Yield to maturity on the bond of Zagrebački holding d.o.o. (%)



NB: Bond yield to maturity is calculated on the basis of information about bond prices taken from Bloomberg. The bond was traded very seldom during the period, and the price made in the last transaction is taken for calculation of yield. Since bond yield to maturity depends on time to maturity as well, the lines on the graph between the moments of trading are not entirely horizontal, i.e. in periods when the price of the bond did not change the yield to maturity did gradually grow as a result of the approach of maturity date.

Source: Author's calculation on the basis of data from Bloomberg, 2011.

6 CONCLUSION AND RECOMMENDATIONS

Global financial instability spurred an interest in the study of borrowing by corporates, households and public sector entities. Although local unit debt is often neglected because of its seemingly small proportion of total state debt, the borrowing of local units is an essential segment of public sector borrowing. In the context of the management of local public debt, particular attention has to be devoted to the indirect (contingent) liabilities not only because of the uncertainty about their conversion into direct debt but also because of the seriousness of potential effects that the onset of such an occurrence might have.

Along with explicit, the public sector is often faced with implicit liabilities that derive from the borrowing of utility firms. Although the operations of local units and utility firms are formally distinct, local units often support the financial operations of utility firms with subsidies, capital aid and indirectly by giving guarantees. Similarly, by borrowing via their utilities, the local units can circumvent the budgetary constraints on borrowing prescribed by the Budget Law and the annual execution of the budget laws. For this reason the financial operations of local units and utility firms must be looked at together in order to obtain an integral image of the financial health of the local public sector. Croatian legislation does not prescri-

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be the consolidation of the reports of local units and the utility firms they own, but there is a good basis for such a procedure in IPSAS.

The financial position of local units in 2008 and 2009 is acceptable, with slight signs of weakness brought about by deterioration of conditions in the economic environment. This picture is partially vitiated by consolidation with the utility firms, but because of the relatively good financial position of local units (the credit going to fairly restrictive budgetary restrictions) the system is as a whole solvent and cannot be characterised as over-indebted. The burden of debt and debt servicing is rising, and the situation of this kind is on the whole determined by the fairly high debt of the utility firms. The negative influence of consolidation is most visible in the stock of net financial assets of the local sector that in 2009 came for the local units to 0.2 billion kuna but after consolidation with the utility firms turned into net liabilities as high as 5.7 billion kuna. The direct debt of local units is on the whole unmarketable, and only five cities' bonds are listed on the market. What is really remarkable is the currency structure of the bonds, which are on the whole denominated in euro. Considering the revenue structure of the issuing cities, there is no logical reason for such a currency structure. Yield to maturity of one utility bond (of Zagrebački holding) doubled after Moody's had cut the Holding's credit rating. Considering that the rating of the city was also cut because of the close connections between City and Holding operations, the conclusion has to be drawn that the financial operations of utility firms can indirectly affect the costs of local government borrowing.

All of this indicates the necessity for the formal consolidation of the financial reports of local units and utility firms. In addition, the role of bodies of local units in the financial planning of the firms should be enhanced, and any major borrowing by the utilities should be preceded by thoroughgoing analysis of the influence of the planned borrowing on the financial operations of the company and also of the local unit in which it operates. It is necessary to bring in a system of assessing the credit risk of local units and utility firms with the aim of optimal allocation of consent for borrowing, and the assessment of credit risk should be the main determinant in giving guarantees to local units and their utility firms. Finally, expansion of the Fiscal Responsibility Law to firms in the public sector would certainly contribute to a more transparent and effective management of public finances.

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