

ROLE OF LOCAL BORROWING IN CROATIA²

ABSTRACT

Local government borrowing is one of the most important instruments of financing local public investments. Although theoretical findings and practical experiences provide a proof of its efficiency, there are reasons to be cautious. It is about the possibility of local public government fiscal activity to jeopardise macroeconomic stability, especially by excessive deficit financing. Therefore, there is a need for regulative constraint. The paper deals with international experience and tries to draw some applicable conclusions for Croatian regulation of local borrowing. Local borrowing in Croatia has been seriously limited and its potentials are underutilised. Constraints were imposed primarily because of the fiscal consolidation goals. However, there is still room for the local borrowing and for exploiting its advantages. The Paper offers some proposals.

Key words: *local borrowing, Croatia, investments, regulative framework, local debt market*

1. Introduction

Decentralisation and urbanization processes that occurred in emerging economies have created increased needs for expenditure on local levels of governments. Devolution of responsibilities for delivering the public sector functions, following the subsidiarity³ principle, was usually not encompassed by adequate revenues. In the majority of these economies, local government units revenues were barely sufficient for sustaining the level of delivery of local public goods and services. Capital expenditures relied mostly on central government capital transfers. The growing needs for the local public investment demanded new financing sources for local government. There are many instruments of financing local investment and these are mostly based on tapping the

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³ principle of efficient division of responsibility for delivery of public goods and services across the tiers of public governance

private sector resources⁴. In this paper, the focus will be on local borrowing, a controversial financial category.

The Croatian goals of accessing the EU made the fiscal consolidation efforts as primary targets of macroeconomic goals. High level of government debt accumulated by the central government level and “off-budget” funds created the pressure on the local borrowing as well. The fact is that local deficit financing was not used in large scale for financing investments. Investment needs of sub-national tiers of government were matched by capital transfers from the central authority. However, theoretical findings as well as EU countries’ experience show that local borrowing should have a significant role in financing investments.

Following the introduction, the theoretical framework of the local debt is discussed. Numerous advantages of local borrowing can be found. Nevertheless, there are reasons to be cautious in using this instrument of financing. Therefore, it has to be regulated. Croatian regulative in that matter is analysed in the third part. Subsequently, the Croatian local debt market and the role of local borrowing in Croatia are analysed. At the end, the simulation of ratio of local debt to the growth of economy is conducted. The conclusion offers some proposals and guidelines for further research.

2. Theoretical framework for local debt

Economic theory suggests that “reasonable” levels of borrowing by a developing countries are likely to enhance their economic growth. Its positive influence is channelled in two directions – through capital accumulation and productivity growth. Countries at lower stages of development have small stocks of capital and are likely to have investment opportunities with rates of return higher than in advanced economies⁵ (see Pattilo, Poirson and Ricci, 2004: 5). These facts support the opinion that there are reasonable arguments for debt financing followed by certain principles. Economic theory, history and empirical findings proved use of deficit financing in following cases:

1. In state of recession and depression when private sector cannot induce recovery⁶
2. Financing public investments (especially those complementary to the private sector⁷) and thus enlarging and improving productive capacity of economy – the bulk of these investments is in scope of the local level of public governance
3. As way of improving the welfare function by raising the level of public goods and services – in this way, prices in housing sector are higher at the local level. This higher price is capitalised by higher tax burden of debt repayment.

⁴ Such as public-private partnership, project financing, privatisation etc...

⁵ At higher levels of debt, negative impact of borrowing on growth is explained by “overhang theory” – increased debt-service costs tend to discourage domestic and foreign investments.

⁶ Measures undertaken in USA for overcoming the depression in 1930-ies confirm its importance.

⁷ Which enlarge the productivity of private investments!

It is important to distinct some features of public borrowing on local level and central governance level. Local government uses debt to provide outputs of public services in accordance with preferences of local inhabitants. On the other side, at central government level, debt is part of countercyclical (stabilisation) policy (Oates, 1972: 153). From the central government level view, public debt is either internal or external and depending on its kind has certain effects. But for local government, public debt can be viewed almost always like external debt (because local units are usually too small to provide resources for financing its own debt). So, the real burden of debt is placed on future residents. That supports the idea of local borrowing due to the benefit principle of taxation.

Although the local public sector in EU candidates (and new members) is limited by their budgets' size, fiscal operations of their sub-national governments can have important macroeconomic effects. They can boost the demand by balanced budget increase or by changes in the composition of their revenues – if spending is related by outlays with large multiplier effects (public works, for example). The magnitude of these effects is increased by the decentralisation progress⁸.

Local deficit finance, as previously mentioned, is a controversial category. Although, it is eagerly argued by the supranational organisations and institutions (like Asian Development Bank, Inter-American Development Bank, European Bank for Reconstruction and Development) that local borrowing is necessary for financing investments in the growing local sector there is strong pressure towards the local deficit financing (see Peterson E. George and Hammam Sonia, 1997: 5)⁹. Practical example are EU limits on public debt and deficits levels that constrained fiscal policies of member countries and accession countries as well.

Apart from the general arguments for the use of deficit financing there are some specific advantages of borrowing on local level (compare Swianiewicz, Paul, 2003; Ebel, R.D., Yilmaz S., 2002):

- Intergenerational equity – it is appropriate to use local borrowing for financing investments because benefits of these undertakings are spread over time. Because of that not only present but future inhabitants of certain locality have opportunity to enjoy in outputs of these investments.
- Local economic development – borrowing is a useful tool for stimulating growth on local level, local governments are better informed on local needs for physical and social investments and therefore could be more effective considering decisions about investment priorities

⁸ Terr-Minassian (1997: 5) warns of the possibilities for endangering macroeconomic efforts of central government in absence of appropriate coordination between the tiers of public governance (sub-national government could run counter the determined macroeconomic goals). This possibility is known as “fiscal perversity” and has its roots in Keynesian economic doctrine.

⁹ In spite of the fact that pressure (mostly coming from the International Monetary Fund) was focused primarily on excessive total public debt the local fiscal crises in Argentina, Brazil, Columbia, Hungary and Russia diverted attention on sub-national borrowing as well.

- Synchronization of expenditure and revenue flows – borrowing prevents possible interruptions in local public goods and services delivery caused by temporary mismatch of local revenues and expenditure needs
- Local borrowing usually has no influence on the level of interest rate (local units are too small) – limited possibilities for “crowding-out” effect
- Infrastructure projects usually cost more and take longer time to complete so borrowing is often only solution for their financing (spreading the costs through time)
- Stabilization of required budget resources – borrowing can be used for alleviating the fluctuations caused by capital spending. If investments are financed from current revenues demand for resources will probably fluctuate and cause problems for local budget solvency in particular fiscal years (depending on the size of projects and fiscal capacity of the local unit).
- Borrowing could be the way of obtaining grants from European and other development funds¹⁰. Grants are usually available under the condition that the local unit provides at least 25 % of the total project cost.

However, there are reasons to be cautious in using this instrument of financing investments. Some international experiences related to fiscal crises based on excessive local borrowing call for regulation procedures. The regulation of local borrowing is discussed in the following text.

The final responsibility for the possible macroeconomic problems caused by borrowing of the sub-national units is on central government level. A common proposal is to impose strict limits on the borrowing ability of sub-national governments. That is the case in the majority of countries. The reasons are the following:

- unchecked local governments, especially those highly dependent on national transfers, are inherently likely to behave irresponsibly¹¹ (Bird, 2000: 22)
- central government should be able to fully control all the instruments of macroeconomic policy in order to carry out stabilisation policy goals (Bird, 2000: 22)
- short-sighted view of local politicians that makes them prone on to excess level of debt financing
- “moral hazard” problem, associated with the implicit insurance that central government will “bail-out” sub-national government in case of difficulties in debt servicing (see Pisauro, 2001:4)

So, sub-national borrowing powers have to be limited and controlled. There are different mechanisms employed within the intergovernmental fiscal relations among

¹⁰ For example, Cohesion Fund, Community Initiative Programmes (CIP) and Structural funds like European Development Fund (EDF) and European Regional Development Fund

¹¹ “common pool” problem – arising from the fact that the opportunity cost of public revenues as perceived by sub-national governments is lower than the true social cost (see Pisauro, 2001:4)

the economies. There is no unique solution appropriate for all countries. There are attempts to group borrowing control mechanisms but they serve more for analytical purposes. The main criterion for the use of local deficit financing should be sub-national units' capacity to service debt over time (Terr-Minassian, 1997)¹². The question is what mechanism provides a reliable tool for the assessment of this capacity and the control of sub-national borrowing. In practice several models are developed and they differ depending on the degree of central government supervision. Terr-Minassian (1997) state reliance on market discipline, rules-based approaches and direct controls. Possible division can be seen in table 1.

Table 1
 Strategies for ensuring fiscal discipline¹³

<i>Administrative control¹</i>	<i>Centrally imposed rules²</i>	<i>Formalised co-operation³</i>	<i>No-institutional co-ordination⁴</i>
France, Greece, Ireland, Japan, Korea, Luxemburg, Turkey, United Kingdom	Brazil, Finland, Hungary, New Zealand, Norway, Poland, Portugal, Slovak Republic, Sweden	Australia, Austria, Belgium, Denmark, Germany, Iceland, Netherlands, Spain	Canada, Czech Republic, Mexico, Switzerland, United States

Source: Jommard I., Per Mathis K. (2003), Fiscal relations across government levels, OECD Economic Studies, No. 36, OECD, p. 199.

1. Direct controls, denotes limited sub-national autonomy
2. Golden rule for example
3. Internal stability pact between the tiers of governance is imposed
4. Local borrowing control is relying on market discipline

Different practices of debt control among EU countries from loose to strict control have not provided answer as to which of the control mechanisms is the most appropriate. There is no unique solution. Nevertheless, there is no evidence that less control from the central level leads to excessive indebtedness. Among the EU countries no significant financial crises or mismanagement have been observed (see Daflon, 2002). On the basis of the empirical research on sample of OECD countries Drummond and Mansoor (2002) conclude that greater decentralisation did not generally lead to increased macroeconomic risks in the form of recurring central government deficits, or to an instability to carry out fiscal consolidation programs.

Propositions of Maastricht Treaty that the ratio of government deficit to GDP must not exceed the reference value of 3 % and the ratio of government debt to GDP must not exceed 60 % made significant constraint for budgets on each tiers of governance in EU countries. Public debt and deficit are in category of national public good – they present

¹² this respects the intergenerational equity principle

¹³ This table emphasises the main co-ordination strategy in place in different countries. However, the relationship between different government tiers is complex and the division of countries in this table is therefore not clear-cut.

requirement of fiscal sustainability and participation in the EMU. These criteria's severely constrained budgets and countries were trying to deal with this problem differently. Some of the countries limited local government budgets and especially their borrowing powers. Conflict between tiers of governance was accentuated. Some of the countries solve this problem, concerning borrowing possibilities, by determining levels of indebtedness for each tier of government.

Austria, for example, concluded the financial settlement negotiations in 1996 by making an agreement that in 1997 the federal level could use 90 % of the public deficit limits given by the Maastricht criteria (2.7 % of GDP) and local levels 10 % (0.3 % of GDP). But with this division potential problems occurred. Negotiations have not solved the question of distribution rules of determined deficit volume between the local units. This situation created some kind of "prisoner's dilemma" problem of intergovernmental relations. If one government unit extends its deficit financing, it will benefit from both the positive effects of the national fiscal stability and its own expanded financial scope. Because of that "Austrian stability pact" followed. Fixed shares for states were determined according to corresponding population and "present fiscal necessities". Similar negotiations started in Germany in 1996 but were not finished (see Daflon, 2002).

3. Regulatory framework for local borrowing¹⁴ in Croatia

The fiscal consolidation demands of the EU had its impact on the Croatian fiscal debt policy. In the 2005-2007 period the goals of the fiscal consolidation are planned to be accomplished gradually. The goal is 2.9% of the consolidated general government deficit in the year 2007. With these deficit reductions the public debt criteria should be satisfied and fixed beneath the level of 60% of GDP. The planned reduction of the local government deficit, according to the Pre-accession economic programme (PEP) of the Government of the Republic Croatia, is from 0.5% of GDP in the year 2004, to 0.3% of GDP in year 2007. The accomplishment of these goals is vested in the regulation of the local borrowing. Since the adoption of the laws regulating the local borrowing, there is a tendency towards "hard constraint" for the use of this instrument of financing investments. That is in opposition from the logic of economic efficiency because sub-national units fiscal capacity is improving and every fiscal year has more potential for exploiting the advantages of local borrowing (see Bajo, 2004). The fiscal decentralisation process in Croatia, that is lagging in comparison with the EU transition countries, has been curbed on this matter also.

The borrowing of lower government tiers is regulated by the Budget Law. A local units can borrow only for investments financed from its own budget. Borrowing has to be approved by decision of its own representative body and consent of Government of Croatia is obligatory. General terms of borrowing of local units are given by Budget Law¹⁵ (article 106):

¹⁴ Local borrowing in Croatia refers to borrowing of the sub-national sector of governance. Classification of the IMF defines Croatia as unitary country.

¹⁵ Zakon o proračunu, Narodne novine broj 96/03

- total annual debt obligations of local units can be at most 20% of realized revenues in the year previous to the year when debt is to be created (these obligations include all previously accumulated debt, given guarantees and unpaid receipts and annuity for the new borrowing)
- three sources of revenues are deducted from the realized budget revenues:
 - revenues from domestic and external grants and donations, from the central government budget or budgets from the other local units
 - revenues from the special contracts: co-financing of citizens for local government
 - revenues from the domestic or external loan

Details on limits of public debt and local debt within it, are stipulated for every fiscal year. For the year 2005 further constraints are imposed:

- government is authorised to give consent on borrowing for local government unit that has current revenues that overcome current expenditures
- consent can be given for local borrowing until realized current revenues of all local government units breach the limit of 2% (the following is not included – local units that were given consent for borrowing until the date of 31st December 2000, provided they did not borrow in the year 2004, local units in the area of special concern, local units that receive credit from the Fund for Regional Growth and Fund for Development and Employment)

The logic behind these limits is that local units that have deficits are not in position to borrow. This stipulation presents an attempt to prevent borrowing for financing long term investments of local units that cannot even cover current expenditures. But limits set up on the level of 2% of realized current revenues can impose serious consequences. In situation of increased credit demand this rule implies that many investment projects based on borrowing could not be undertaken. This could create similar situation like in Austria that is previously described.

Large number of local units and large differences in fiscal capacity among them, are important features for the Croatian local credit market. These features of intergovernmental relations in Croatia define the relation towards borrowing. Too many local units make control from the central level difficult and so support arguments for imposing strict local debt limits. In addition to that, many small local units are not able to borrow because of the lack of technical capacity and higher fixed costs of borrowing. This points out that strategy of model of local credit market should be a mixed combination like in the Czech Republic¹⁶.

¹⁶ A useful example for the Croatian local debt model is the Czech Republic experience in that matter. Smaller municipalities borrow primarily from parastatal institutions. Middle-size cities borrow mainly from commercial banks. Large cities rely on bond issuance. The reasons for such division is logical. Smaller local units need technical support for developing investment projects and debt service amortisation details. Middle-size units prefer to avoid bureaucratic procedures and large cities find it cheaper to finance their investment needs directly from capital market. See Peterson E. George and Hammam Sonia (1997)

4. Local debt market in Croatia

Three kinds of income streams or income promises typically stand behind municipal borrowing:

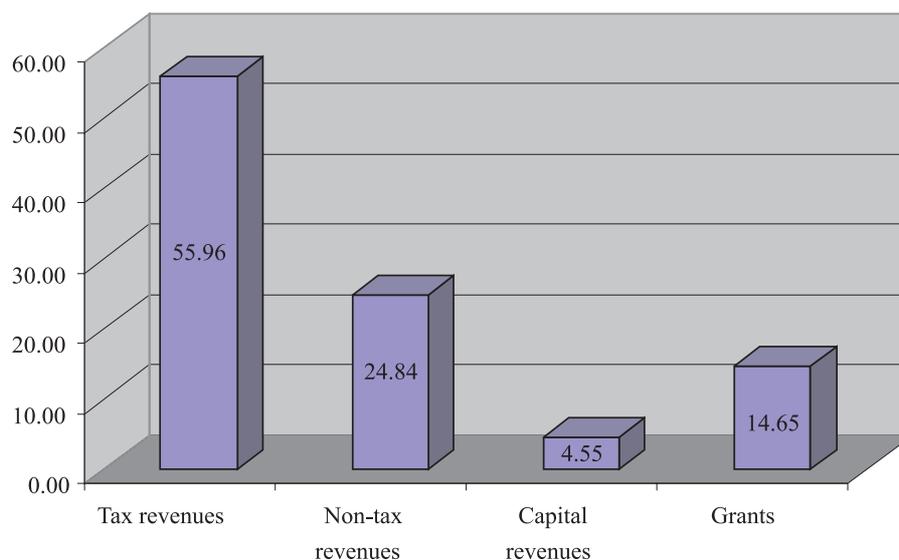
- general revenues – it mostly refers to operating surplus – when local recurring revenues overcome local operating expenditures. These resources can be forwarded to capital budget where they can be used to finance capital expenditures directly or to pay debt service on borrowing¹⁷. Other revenue sources, such as asset sales, are extraordinary revenues and cannot be included in long-term projections of revenue base.
- project revenues – revenue streams from an investment projects to debt repayment. Revenues generated from project financing are feasible if it is administratively possible to charge customers for service usage. Many of local services fall into this category – water, gas, electricity distribution, all kinds of infrastructure provisions – roads, cemeteries etc¹⁸.
- central government transfers – in most developing countries budgets are often highly dependent on shared taxes and intergovernmental transfers. These revenue sources are unstable since they can be reduced because of the worsening of the general government fiscal position, political changes or for other reasons. So, local borrowing capacity is difficult to analyse and predict.

The additional problem with local borrowing in Croatia is related with the structure of the revenues of sub-national tiers of government. This structure is not appropriate for intensive use of local borrowing. The structure can be seen on Figure 1. It is important to mention that about 80% of tax revenues consists of shared taxes (personal and corporate income tax) and the share of own local taxes is very low. These sources of revenues are volatile and have pro-cyclical character. In addition to that, a high percentage of non-tax revenues comes mostly from administrative and communal fees – these revenues are earmarked for certain expenditures. It is therefore to be concluded that uncertain revenue base presents argument for constraining the local borrowing. But, the real problem lies in the fact that revenue structure of sub-national governments has to be improved.

¹⁷ There is a trade-off because using the surplus for paying debt service increases present borrowing capacity but could impose a burden on the future investment potential (unless undertaken investments generate additional revenues).

¹⁸ Project financing is more risky for public than for private sector investments. Problem often mentioned in undeveloped countries is that pricing of public services usually is under political constraints and therefore cannot cover true cost of investments.

Figure 1
Revenue structure of sub-national tiers of public governance in Croatia in the year 2003



Source: Author's calculation, Ministry of finance, <http://www.mfin.hr>

The before mentioned discussion raises the question of the appropriate model of local credit market for Croatia. The Analysis can begin by determining the potential for municipal lending. What is the position of Croatian sub-national government? High inequalities in the fiscal capacity between the units of sub-national governance indicate that Croatian local credit market has to be founded on the mixed model based on public intermediary, bank loans or bond financing (similar to previously mentioned model established in Czech Republic). This conclusion is based on the comparison of the positive and negative sides of the models of municipal systems (see table 2). It is also supported by international experiences. But, this practice has already been established in Croatia – local units borrow from commercial banks and public banks (Croatian Bank for Reconstruction and Development) and obtain funds by bond issuance.

In Western Europe, specialized municipal banks supply most municipal credits in the form of long-term bank loans. In the USA and Canada, municipalities borrow primarily by selling municipal bonds in the capital market. But, there are signs of convergence between these two credit systems. Municipal bonds are more and more used in Europe, especially in Nordic countries. In project financing, European banks and European service firms have become major financiers of some types of U.S. infrastructure projects.

Table 2
 Advantages and disadvantages of models of municipal systems

	Positive	Negative
Bank Loans	- "Relationship banking" as a reliable source of financing ¹⁹	- Possible suppression of municipal bond market in case of bank monopoly (higher interest rates) -limits municipality to rely on a partner bank in provision of all kinds of financial services
Municipal Bonds	- Less personal and less permanent connection between borrowers and lenders -Goes in line with higher decentralisation -Relies on public disclosure of municipal financial information and has positive influence on fiscal discipline -Lowers the cost of municipality's financial activities market bidding	- Not appropriate for smaller communities (fixed costs of issuance are too high) -Central government has difficulties to monitor and control indebtedness and investment choices of local units
Public Intermediary	- Subsidised interest rates – cheaper financing for local units -Useful at the beginning of establishing the local credit market	- Possible misallocations of investment due to corruption or influence of central government on local investment decisions -Reduces local government borrowing in case of larger general government budget deficits -Possibilities of softening the budget constraint and macroeconomic stability problems-long bureaucratic procedures-appropriate for small municipalities, with lower personnel and technical capacity

Source: Author

The trends in EU local and regional debt market can be a finger-post for Croatia. In the situation of weak macroeconomic indicators (fiscal budget constraints explain the weak growth that can be found in credit analyses of different consulting firms), local and regional credit market is increasing its volume every year. The trend is especially

¹⁹ Could be positive or negative. It depends on the economic strength of borrower (with evolution of financial and technical capabilities advantages of relationship banking diminish). Banks usually subsidize their clients at the beginning and later charge higher interest rates than those on the market. On the other side, bank helps borrower with all kinds of activities necessary for investments – preparing the loan applications, supervising its payment system etc.

present in bond issuance²⁰. Another significant trend is on continuous higher credit rankings of EU sub-national units given by credit agencies. The spread²¹ on local and regional bonds is on the level of banks, corporate sector and financial institutions. According to Standard&Poor analysis, the probabilities of default of these governments are equal to default of mentioned financial institutions.

It is worth mentioning that on the way towards the EU credit rating of the Croatian sub-national units of governance is expected to increase (the credit rating of the national economy has already increased over the recent period). That is the case in other accession and new member countries as well. These trends are inevitable due to political reasons and economical and financial progress of these countries.

Therefore, it is important to determine role of local borrowing in Croatia in comparison to other instruments of financing investments. Local public investments can be financed from following sources:

- operating surplus
- sale of assets
- grants from the Central Budget or national funds
- credit
- stabilization funds (or the so called “rainy day funds”)²²

There are not many local units in Croatia that are able to finance their investments by their operating surpluses. The reason for that is great fiscal capacity disparities within the local public sector units in the country. But, even in the units with bigger fiscal capacity, these sources are not close enough to satisfy investment appetites (Zagreb, for example, took 45% of total local debt in the year 2003). The revenues from the sales of assets are characterised as extraordinary and are not considered as a reliable source of financing. However, it is worth to mention that these resources were (and still are) substantial. Beside that, it was not possible to determine whether these revenues were used for capital expenditures²³ (capital and current account were not divided). The problem with grants is that they are not in accordance with the principles of fiscal decentralisation. Investment highly dependent on grants undermine the autonomy of local units due to political patronage of central government. There are also problems with the lack of transparency and criteria for approving grants for local units. Also, local units are not motivated to deal with the investment priorities or any kind of cost-benefit analysis of particular projects. All these previously mentioned sources of financing are not in

²⁰ Credit Agricole Indosuez (2003), Local&Regional Governments, Credit Analysis, <http://capitalmarkets.ca-indosuez.com>

²¹ Spread is determined on the basis of the following formula: Spread = Credit + Risk weighting + Country Risk

²² This source of revenue is more appropriate for local finances of developed economies. The idea is to match the local budgets to business cycles. In case of an economic upturn, the increased revenues fill up the fund account and, contrary, in a downturn faze, these resources are used for financing increased investments. Such funds are used as a source of financing in many USA states.

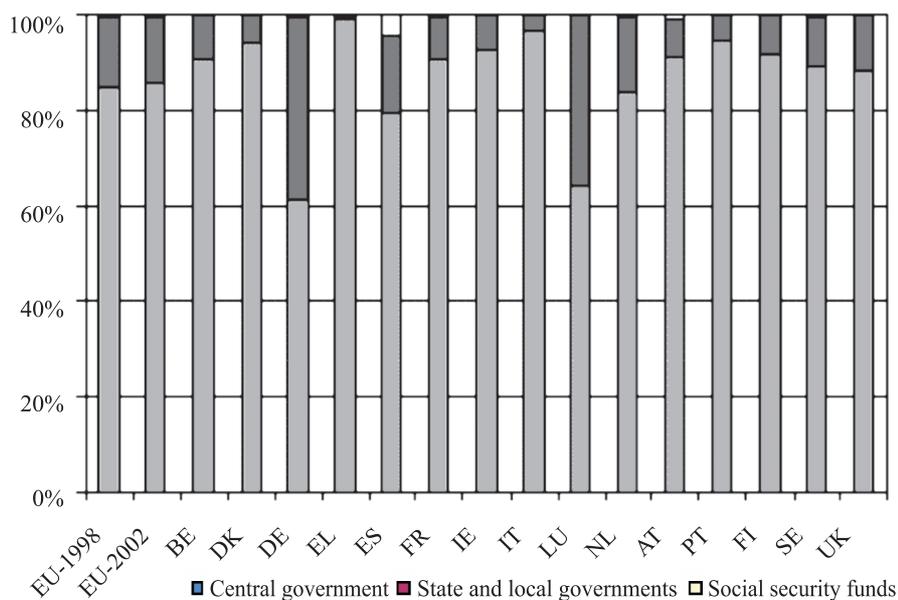
²³ That would be in accordance with practice of “good” finances.

accordance with the benefit principle of taxation considering their role in financing the long-term investment projects²⁴.

Borrowing, on the other side, is the most appropriate instrument, but demands caution and many requirements. Long term borrowing, inevitably motivates local units to strengthen their fiscal discipline and responsibilities. This is true only if the regulation framework for borrowing is properly built. Under utilisation of sub-national debt financing in Croatia can be determined by comparing the position of local and state borrowing in EU (Figure 2) and the share of sub-national borrowing in Croatia – at the level of 1,9% of general government consolidated debt in the year 2003.

Figure 2
 Breakdown of general government consolidated debt by sub-sector for EU members in the year 2002

- in percent
 Source: Besnard Dennis, (2004), Structure of government debt in Europe, Economy and Finance,



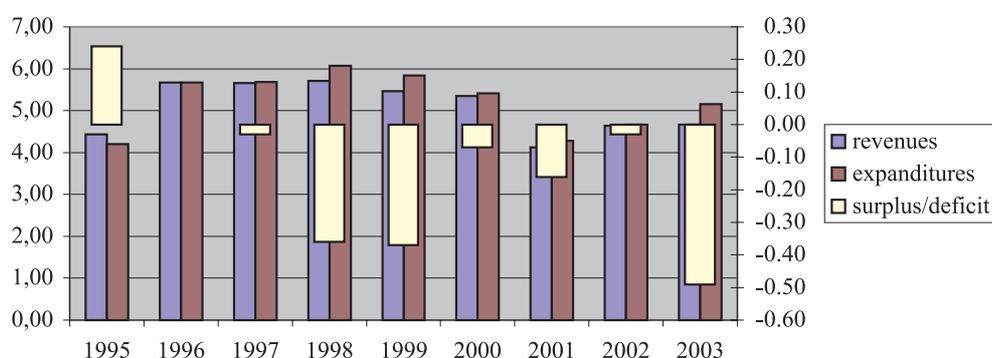
Eurostat, p.3., available at <http://www.eu.int/>

The importance of the fiscal activity of sub-national level of governance in Croatia is presented in Figure 3. It can be concluded that the impact on the economy was

²⁴ The common problem concerning the capital transfers in Croatia is the accumulation of unspent resources on sub-national governments' accounts. These resources are not in function and are being shifted from year to year. This situation is intolerable considering the investment needs of local sector. It is the responsibility of all tiers of governance to strengthen the control and use of resources designated for investments.

expansionary, but on a small scale. The trend of local revenues and expenditures shows stagnation of fiscal decentralisation process in Croatia. The continuation of the delegation of functions for the delivery of public goods and services (in the area of health and education) that began in the year 2001 could trigger growth of sub-national expenditures and deficit (despite the increase of the revenues from shared taxes). The total local debt since the year 2000 till now fluctuates under the level less than 1% of GDP²⁵ and its' rate follows rate of GDP growth.

Figure 3



Croatian sub-national fiscal activity from 1995 to 2003

- in percent of GDP

Source: Annual Report of the Ministry of Finance 2002-2003 (2004), <http://www.mfin.hr>

* Capital revenues included in total revenues

* Based on methodology of GFS 1986

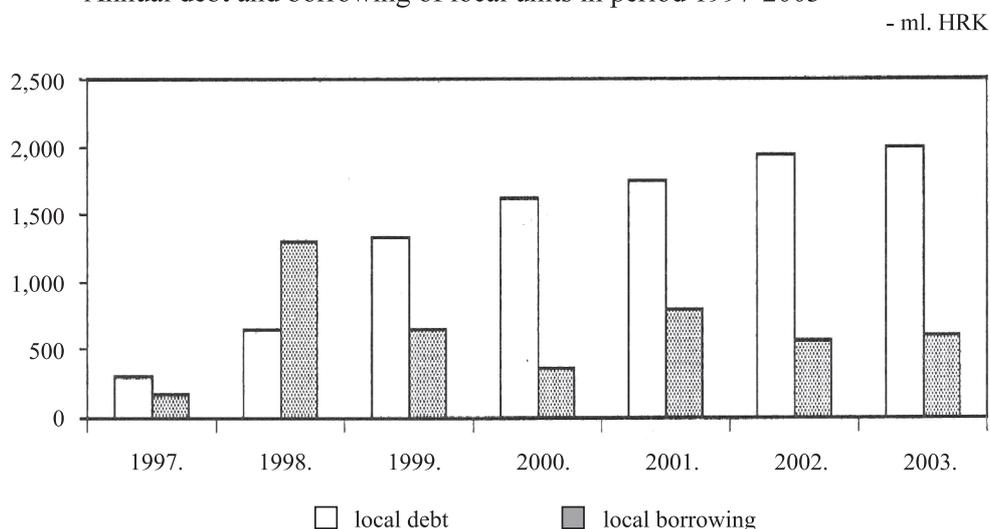
Trends in local debt and borrowing in Croatia are presented by Figure 4. For the presented period total debt grows by stable and low rate. Annual borrowing fluctuates, but from 1998 it remains at level around 500 mln. KN. Limits for the year 2005 (discussed in section 3) will seriously constraint local borrowing. For example, in order to borrow 500 ml KN, current revenues of the whole sub-national government sector should be 25 bln. KN. For the year 2004 these revenues amounted 13 bln. KN. Significant increase is unlikely to expect. In same time, ratio of total government debt to GDP is growing – from 42.9% in 1999 to 51.7% of GDP in 2003 (Ministry of Finance, 2004). Political pressure on reducing debt is obviously easier to exert on local government level. These trends are opposite from international experiences and present constraint for progress of decentralisation process in Croatia.

One of the negative aspects of local borrowing in Croatia is related to the duration of debt. For the most part borrowing is of short-term or medium-term character. This is negative from benefit principle of taxation (thus intergenerational justice) and also

²⁵ 0,8% of GDP in 2003. according to the Ministry of Finance (2004)

because of lack of the manoeuvre room for further local borrowing. In that way local units exhaust their possibilities of local investments and have problems with debt servicing. The question is why don't local units borrow funds on long-term basis. Debt management of local units is not sophisticated and in many municipalities it is not a term occupied by local decision making. On the other side, there is a possibility that lenders are not interested in tying their funds for an longer period of time. Anyway, there is a reasonable argument for shifting the demand for loans to longer periods. It is doubtful whether any analyses of the cost-benefit of investments and their debt financing has been done. In that way the burden falls on new generation.

Figure 4
Annual debt and borrowing of local units in period 1997-2003



Source: Bajo, Anto, (2004), "Zaduživanje lokalnih jedinica u Republici Hrvatskoj: mogućnosti i ograničenja", *Financijska teorija i praksa*, Zagreb, br. 2., IJF, p. 206.

Fiscal consolidation goals of the EU countries created strong pressure on to the local budgets. It is a well known fact that the burden of debt in all EU and EU accession countries have been created by expansionary fiscal policy of central government levels of these countries (primarily social security net funds). These revenue sources were often used for financing current expenditure needs. There have been attempts to solve the problem of excessive debt and deficit by reducing the deficits on all levels of governance. These attempts do not respect economic logic. Investments in public infrastructure are necessary for normal functioning of delivery of public services and form the basis for the productivity of the private sector. These investments are condition sine qua non for local development. Local development of the EU accession countries is especially restricted due to low levels of national and local accumulation. So, by respecting the given constraints by supranational authorities, there is a

possibility within the particular country debt policy to make it optimal. There is a need for “internal stability pact” in every country aiming at exploiting the deficit resources most efficiently and accomplishing the fiscal consolidation goals. Experiences of western European economies present good basis for modelling this kind of agreement between the tiers of governance.

Problems concerning public finances in EU during in the year 2003 present an important sign-post for Croatia. The cause of the problems is low economic growth. The deficit of general government of EU zone jumped to 2.7 % of GDP in 2003 from 2.3 % of GDP in 2002 (Croatian National Bank, 2004: 19). Several countries exceed the 3 % deficit share in BDP imposed by Maastricht treaties and Stability Pact: France (4.1%), Germany (3.9%), United Kingdom (3.2%) and Netherlands (3.0%). This is just a warning that artificial fiscal limits cannot be primary goal of fiscal policy. The accent should be on stimulating economic growth. Higher rates of growth of GDP will lead to decrease of the deficit and debt ratios. The next task to determine the role of deficit financing in stimulating growth. Especially for Croatia and European “transition” countries.

One of the essential demands for accession countries in their integration in EU and accomplishment of EU fiscal requirements is fiscal transparency²⁶. It is considered to be a necessity for successful control of their fiscal policies and macroeconomic goals of the Union. The concepts of fiscal transparency are accented in *aquis communautaire* – key chapters of the *aquis* define various fiscal management requirements (including transparency) of EU membership. The majority of new EU member countries have participated in an IMF assessment of fiscal transparency – a report on the observance of standards and codes (ROSC). An analysis of fiscal transparency ROSCs in EU countries cover four areas of particular significance for EU accession countries: establishing medium-term budget frameworks, comprehensive coverage of off-budget activities, effective accounting, reporting and oversight, and, finally, strengthening intergovernmental fiscal relations. These measures are considered essential for improved analysis of fiscal risks and sustainability. Whether Croatia will participate in same process it not so important. Standards contained within these reports have to be reached. These standards present requirements for efficient borrowing as well²⁷.

The fiscal transparency ROSCs for EU accession countries indicated a number of areas where improvements in underlying accounting systems are needed²⁸:

²⁶ The IMF Code of Good Practices on Fiscal Transparency (the fiscal transparency code), <http://www.imf.org/external/np/fad/trans/index.htm>

²⁷ In 2001., George Akerlof received a Nobel prize for his work on theory of “asymmetric information” and prices. He was analysing different markets and concluded that when one party to a transaction has better information than other side most efficient price is not actually reached. This is the case on local debt market also when fiscal transparency standards were not respected.

²⁸ All of the EU accession countries have made medium-term projections as part of the requirements for the pre-accession Economic Programs (PEPs). But, fiscal transparency ROSCs indicated that few have attained a sufficient standard in all of the elements of medium-term budget frameworks needed to link domestic budget decision processes effectively with medium-term fiscal policy aims, although a few made significant progress in several areas (for detailed discussion see Allan William, Parry Taryn, 2003).

- weak centralized accounting and information systems
- inadequate accounting and reporting practices by both extrabudgetary institutions and local governments (most ROSCs), exclusion of externally financed projects
- insufficiently detailed information or comprehensive data on general government debt or deficit financing

Addressing these underlying accounting and reporting weaknesses will be fundamental for timely, comprehensive and reliable fiscal reporting for domestic fiscal policy as well as for reporting to the EU. More comprehensive reporting on government debt is particularly important for the analysis of fiscal sustainability and the determination of the correct fiscal policy stance. Publication of both projected timing of debt issuance and a medium-term debt management strategy would better guide market expectations. All of these mentioned problems characterise Croatian sub-national units. So, there is a much to do for improving fiscal transparency indicators ahead. By doing that, limits on Croatian local borrowing will lose arguments for their existence.

In the following section, simulation of the ratio of the local debt to GDP is presented. The results can be useful in determining the efficiency and necessity of imposed constraints on the local borrowing.

5. Simulation of local debt trends in Croatia

Simulation of changes of the ratio of the local debt to GDP is based on Dommar²⁹ model of growth. Projections are based on the actual data for the year 2003 (source – Ministry of Finance, 2004). For the reasons of application on local borrowing some important presumptions have to be engaged in the model:

- the rate of growth of local borrowing is equal to growth rate of the current revenues of the local units (it implies that rate of growth of the current revenues of the local units equals rate of GDP growth³⁰) – this presumption is necessary because of legislatively imposed rules (see section 3)
- in calculations, initial value of the current revenues of the sub-national government is included (because possible amount of the local borrowing is tied by volume of current revenues)

Following parameters are given:

- $Y_0 = 193$ bln. of KN
- $V_0 = 1,55$ bln. of KN – initial value of local debt
- $r = 4\%$ – average rate of growth of GDP of Croatian economy (for table 4), variable for table 5

²⁹ Simulation of ratio of local debt to GDP is based on original paper of Dommar, D. Evsey (1957) and application of this model by Sever (1995). Model is adapted for the calculation of local debt and adapted to constraints on borrowing given by the Croatian legislative. For derivation of equations see appendix.

³⁰ This presumption is confirmed by actual data. Current revenues are highly dependent on GDP growth so this is not surprising.

- v = variable
- $R = 8,5$ bln. of KN – initial value of current revenues ($R = Y_0$, R replaces national income in the equation for calculating local debt – this is possible under the presumption of equal growth rates)

Table 3 presents changes of the ratio of the local debt to GDP in the period from the year 2004. to 2013. by variation of rate of local borrowing. These results show that there is no need for such strict limits on local borrowing as they are imposed by the Croatian legislative (2% of total the sub-national current revenues). This medium-term projection indicates that reasonable growth rates of local borrowing will not endanger macroeconomic stability. Of course, defaults of particular local units cannot be predicted. This implies that accent within the regulative framework for local borrowing should more rely on improving accountancy standards, fiscal transparency and revision and control of budgets of the particular units. So, the Croatian strategy for ensuring fiscal discipline has to be revised. Possible models are previously mentioned in paper. Proposal is to go towards coordination mechanisms improving and relaying on market signs.

Table 3

Changes of the ratio of local debt to GDP by variation of rate of local borrowing

	$v=1$	$v=2$	$v=3$	$v=4$	$v=5$	$v=6$	$v=7$	$v=8$	$v=9$	$v=10$	$v=15$	$v=20$
2004	0.81	0.86	0.90	0.94	0.99	1.03	1.07	1.12	1.16	1.20	1.42	1.64
2005	0.82	0.91	0.99	1.08	1.16	1.25	1.33	1.42	1.50	1.59	2.01	2.44
2006	0.84	0.96	1.08	1.21	1.33	1.46	1.58	1.71	1.83	1.96	2.58	3.21
2007	0.86	1.01	1.17	1.34	1.50	1.66	1.83	2.00	2.15	2.31	3.13	3.95
2008	0.87	1.06	1.26	1.46	1.66	1.86	2.06	2.26	2.46	2.66	3.66	4.66
2009	0.87	1.10	1.34	1.57	1.81	2.04	2.28	2.51	2.75	2.99	4.16	5.34
2010	0.88	1.14	1.41	1.68	1.95	2.22	2.49	2.76	3.03	3.30	4.65	6.00
2011	0.89	1.19	1.49	1.79	2.09	2.40	2.70	3.00	3.30	3.61	5.12	6.63
2012	0.90	1.23	1.56	1.89	2.23	2.56	2.90	3.23	3.56	3.90	5.57	7.24
2013	0.90	1.26	1.63	1.99	2.36	2.72	3.09	3.45	3.81	4.18	6.00	7.82

Before stated conclusions are supported by results given in table 4. In this case the growth rate of local borrowing amounts 2%, than 5% and 10%. The GDP growth rate vary from 1 to 5%. Important conclusion can be drawn from these data. By rising the growth of GDP and constant growth rate of the local borrowing ratio of the local debt in GDP is falling. That is important reminder that artificially set up fiscal limits can be easily breached in the case of economic downturn. These limits on local borrowing depend on business cycle and absolute amount of borrowing is reduced in the case of decreased revenues.

Table 4
 Changes of the ratio of local debt to GDP by variation of rate of local borrowing and rate of GDP growth

	v =2					v =5					v =10				
	r =1	r =2	r =3	r =4	r =5	r =1	r =2	r =3	r =4	r =5	r =1	r =2	r =3	r =4	r =5
2004	0.88	0.87	0.86	0.86	0.85	1.01	1.00	0.99	0.99	0.98	1.23	1.22	1.21	1.20	1.19
2005	0.96	0.94	0.93	0.91	0.89	1.22	1.20	1.18	1.16	1.14	1.66	1.64	1.61	1.59	1.57
2006	1.04	1.01	0.99	0.96	0.94	1.43	1.40	1.37	1.33	1.30	2.08	2.04	2.00	1.96	1.92
2007	1.12	1.08	1.04	1.01	0.98	1.64	1.59	1.54	1.50	1.46	2.50	2.44	2.38	2.31	2.26
2008	1.19	1.14	1.10	1.06	1.01	1.84	1.78	1.71	1.66	1.60	2.92	2.83	2.74	2.66	2.58
2009	1.27	1.21	1.15	1.10	1.05	2.04	1.96	1.88	1.81	1.74	3.33	3.21	3.09	2.99	2.88
2010	1.34	1.27	1.21	1.14	1.09	2.24	2.14	2.04	1.95	1.87	3.73	3.58	3.44	3.30	3.17
2011	1.42	1.34	1.26	1.19	1.12	2.44	2.31	2.20	2.09	1.99	4.13	3.95	3.77	3.61	3.45
2012	1.49	1.40	1.31	1.23	1.15	2.63	2.49	2.35	2.23	2.11	4.53	4.31	4.09	3.90	3.71
2013	1.57	1.46	1.36	1.26	1.18	2.83	2.66	2.50	2.36	2.22	4.93	4.66	4.41	4.18	3.96

At the end, it has to be noted that even in the case of lowering the growth rate of Croatian economy, it is highly unlikely that the local public government fiscal activities can cause fiscal crises. General regulations have to be relaxed, and, in this way, important break of development will be removed.

6. Conclusion

Theoretical analysis of local borrowing supported by international experiences and the state of intergovernmental relations in Croatia give support for various proposals. Experiences of some EU countries appoint to conclusion that there is a need for establishing some form of “internal stability pact” within the levels of public governance in Croatia. Precise possible debt levels for every county have to be determined. The current situation in which strict local borrowing regulation imposes limits on financing important local projects is not effective. Potentials of local borrowing are used only by local units with higher fiscal, administrative and technical capacity.

Debt management at the local level has to be improved. Taking short-term loans burdens the local budgets and has negative effects from the aspect of intergenerational equity. It also reduces freedom of manoeuvre for further borrowing of local units which could result in reduced capability for investments in short-term period. It would be efficient to increase the role of local borrowing instead of relaying on capital transfers from central government – projects financed by these transfers undermine local authority and do not respect the fact that local representatives are better informed on local needs for public good and services (and priority of investments).

Possible softening of hard budget constraints imposed on sub-national level of governance could be considered. Fiscal activity of sub-national level of governance generates low share of GDP so there is no real threat for macroeconomic instability caused by excessive borrowing (although there are good reasons for regulation also). Development of local debt market has to be stimulated. The proof is regular annual expansion of EU local debt market. By curbing the local borrowing the Croatian economy could lose an important instrument of development.

In efforts of the Croatian economy to accomplish higher levels of growth and development, all of the instruments for achievement of this goal have to be employed. Therefore, potential of local borrowing has to be exploited. Present limits on local borrowing do not enable this opportunity and are not efficient. This conclusion is supported by quantitative analysis. Model of ensuring fiscal discipline has to be revised.

All of these proposals cannot be realized if some of the fundamental problems concerning the sub-national government in Croatia are not solved. Some of these problems are related with low fiscal transparency of their budget, deficit in personnel, organisational and management capabilities, disclosure of information, determination of fiscal capacity of the local units, inappropriate budget methodology and other. Goals of improving these requirements for sound system of intergovernmental relations and thus borrowing requirements are addressed within the Pre-accession strategy of Croatia. There is to see if these efforts will be fruitful.

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APPENDIX:

Derivation of local debt equation based on Harrod-Domar model of growth

LIST OF VARIABLES USED IN MODEL:

r - growth rate of national income

v - average growth rate of local borrowing

V - local debt

B - burden of debt (interests)

$Y_v = Y_t$ - disposable income (national income)

i - interest rate

The derivation of equations begins by relation of annual burden of local budget by interests paid to lenders:

$$B = i \cdot V \quad (1)$$

Disposable income has two parts

$$Y_v = y + B \quad (2)$$

or, by introducing relation (1)

$$Y_v = Y + i \cdot V \quad (3)$$

Local borrowing is function that variables in time, so can be described by differential equation:

$$\frac{dV}{dt} = v \cdot Y \quad (4)$$

Further presumption is that national income changes exponentially³¹ by the growth rater.

$$Y_t = Y_0 \cdot e^{rt} \quad (5)$$

denotes national income at $t=0$ (initial moment).

Derivation of equation of volume of local debt in time begins with differential equation from line (4)

$$\frac{dV}{dt} = v \cdot Y \cdot dt \quad (6)$$

$$dV = v \cdot Y \cdot dt \quad (7)$$

instead relation (5) is introduced:

$$dV = v \cdot Y_0 \cdot e^{rt} dt \quad (8)$$

³¹ Exponential equation is considered to be most appropriate approximation of changes of the national income. It is often used in econometrical and mathematical models that describe process of economic growth.

After integration

$$\int_0^t dV = \int_0^t v \cdot Y_0 \cdot e^{rt} \quad (9)$$

$$V(t) - V(0) = \frac{v \cdot Y_0 \cdot e^{rt}}{r} - \frac{v \cdot Y_0 \cdot e^{r \cdot 0}}{r} \quad (10)$$

$$V_t = V_0 + \frac{v \cdot Y_0 \cdot e^{rt}}{r} - \frac{v \cdot Y_0}{r} \quad (11)$$

Relation (11) is arranged, and finally, function of local debt in time is given:

$$V_t = V_0 + \frac{v \cdot Y_0}{r} (e^{rt} - 1) \quad (12)$$

Saša Drezgić¹

ULOGA LOKALNOG ZADUŽIVANJA U REPUBLICI HRVATSKOJ

SAŽETAK

Zaduživanje lokalne razine javne vlasti jedan je od najvažnijih instrumenata financiranja lokalnih javnih investicija. Iako teorija i praktična iskustva dokazuju efikasnost upotrebe ovog instrumenta, postoje razlozi za oprez pri njegovu korištenju. Radi se o mogućnosti da fiskalne aktivnosti lokalne javne vlasti ugroze makroekonomsku stabilnost, osobito putem pretjeranog deficitnog financiranja. Stoga, postoji potreba za regulativnim ograničenjima. U radu se, na temelju međunarodnih iskustava, nastoje utvrditi primjereni zaključci u vezi reguliranja lokalnog zaduživanja u Hrvatskoj. Lokalno zaduživanje u Hrvatskoj strogo je ograničeno i njegovi potencijali su neiskorišteni. Ograničenja su postavljena prvenstveno radi cilja fiskalne konsolidacije. Ali, usprkos tome, ostaje prostora za lokalno zaduživanje i korištenje njegovih prednosti. U radu su predložena neka rješenja.

Ključne riječi: lokalno zaduživanje, Hrvatska, investicije, regulativni okvir, lokalno tržište duga

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