

мнением о необходимости разработки и утверждения на государственном уровне Положения о порядке формирования и использования венчурных фондов специального назначения для финансирования инновационной деятельности.

Реализация вышеизложенных мероприятий позволит создать благоприятные правовые экономические и социальные условия для инновационного развития, постоянного повышения технологического уровня производства и конкурентоспособности продукции и на этой основе обеспечить рост уровня и качества жизни населения, укрепление национальной безопасности страны.

Таким образом, проблематика, связанная с инновациями и реализацией государственной инновационной политики, обладает чрезвычайной актуальностью. Это обусловлено тем, что инновации играют важную роль в обеспечении экономического развития России и Беларуси. В настоящее время именно они определяют уровень конкурентоспособности национальных товаров и всей экономики страны в целом в глобализирующейся мировой системе.

В связи с процессами глобализации необходимо создавать инновационную национальную экономику с новейшими институциональными формами и технологиями функционирования. Переход к новой модели, в том числе в сфере государственного управления требует своего институционального оформления, своих специфических организационно-функциональных и координирующих структур.

Интеграция в сфере инновационного развития России и Беларуси требует разработки новой парадигмы восприятия общественного прогресса, который рождается одновременно с революционным приходом шестого технологического уклада. Основой такой парадигмы должна стать институциональная теория, учитывающая, что воспроизводство новых знаний, в процессе которого участвуют наука, образование и экономика, является важнейшим системообразующим фактором социально-экономических преобразований.

Список использованных источников

1. Молчанова, О. П., Шестоперов А. М. Формирование стратегических альянсов для реализации высокотехнологичных социально-ориентированных проектов: сравнительный анализ российского и зарубежного опыта // Интеграл. Том 2. № 64. 2012. С. 111– 116.
2. Дорина, Е. Б. Институциональные основы реализации экономической стратегии Беларуси в условиях глобализации и интеграции // Вестник экономической интеграции. – 2009. – № 1. – С. 30 – 41.
3. Дорина Е. Б. Инновационное развитие белорусской экономики: приоритеты и факторы достижения нового качества экономического роста // Управление инновациями - 2011 / Материалы межд. науч. прак. конф. 14 – 16 ноября 2011 г. / под ред. Р. М. Нижегородцева.– М. : ЛЕНАНД, 2011.– С. 72 – 77.

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BUDGETARY INTERVENTIONS FOR REGIONAL DEVELOPMENT

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In this article, the key factors of sub-national government efficiency will be thoroughly discussed with special emphasis on territorial-administrative formation of local governments which defines the level of democracy and the economies of scale of particular local governments. First part of the article, after introduction, elaborates some important lessons on key factors of regional (local) government efficiency. Second part focuses on position of local government sector in terms of potential for conducting the countercyclical fiscal policy. We can observe that such policy is mainly present in developed decentralized economies. Third part of the article deals with position of regional (local) governments within the system of intergovernmental relations. This position defines potentials of subnational governments to conduct proactive measures in mitigating the effects of economic crises. Fourth part

presents an example of response of Croatian regional (local) governments as an attempt of countercyclical budgetary measures.

KEY WORDS: budgetary measures, fiscal policy, efficiency, regional (local) development, local governments.

INTRODUCTION

In the last two decades in particular there is a hot debate on the efficiency of sub-national governments and the extent of effects of their activities on regional (local) economic development. In addition to the issue of efficiency the effects of economic crises that propagated through all levels of government present one of the most important topics in the field of fiscal federalism nowadays. This is not surprising because the crisis is still ongoing phenomena and regional and local governments worldwide are engaged in creating novel approaches for reducing the harmful impacts. Numerous questions arise. To what extent can regional and local governments provide support to citizens and local businesses? What are the repercussions of the crisis to the regional and local budget? How to increase revenues? Hard choices of cutting government spending are also included.

REGIONAL (LOCAL) GOVERNMENT EFFICIENCY

Regional (local) government efficiency comes from many sources. However, we can address three pillars which should enable increasing the efficiency in sub-national public spending (Hemmings, 2006):

- opportunities to encourage greater economies of scale in service provision
- adjustment of sub-national government financing to further increase transparency and provide the right balance between autonomy for the regions and municipalities and the central-government power
- improvements in accountability – in the form of oversight and transparency in public procurement process, strengthening the benchmarking processes, and improvement of e-government particularly in the sense of better coordination between government databases

In this part, we deal with the issue of achieving greater economies of scale in provision of regional (local) public goods and services. This is the first and fundamental step towards exploiting the advantages of other categories that improve the outcomes of regional (local) government activities. Questioning the optimal level of government size, as was mentioned, has many layers (given as criteria in the next section). When we focus on economic efficiency, besides average (marginal) costs which decrease with the size of the local government, we have to aggregate these layers into one that is beneficial in terms of optimal size. There is a general consensus that the level of citizens' participation (which does not refer only to voting) and the level of democracy (in terms of better information and accessibility given to the citizens) negatively correlates with the government size. This comes from the fact that as the government gets larger, the more the individual preferences towards regional (local) public goods and services are blended into aggregate preferences of the whole community. At some point of the government size, there is a possibility that aggregate preferences and the distribution of individual preferences do not match closely. It is highly unlikely that a sample of numerous distributions of preferences for many local public goods and services would follow a normal distribution (which would guarantee that most of the citizens' preferences are satisfied). Therefore, local government representatives have to be more responsible towards individual voters in smaller governments simply because they are more accessible and their actions are more visible.

Larger governments can improve territorial equality by combining rich and poor areas (inhabitants) and eliminating differences between available resources and expenditures per capita. The smaller the governments are, the larger the fluctuation of individual local government expenditure standards from the average expenditure standard of local governments. Of course, such a situation intensifies the needs for central government transfers in order to preserve an acceptable level of provision of local goods and services. This is a sort of a paradox. Despite the fact that smaller governments have a greater potential for improving the level of local democracy, they demand a greater intervention of the central government to resolve inequalities in resources necessary for satisfying citizens' needs. Usually, the central government does not provide a sufficient level of transfers, which means that a possible level of democracy expressed through the provision of requested regional (local) public goods and service is never reached. On the contrary, over-fragmented territorial formation usually creates a local government able to finance only administrative costs without any space for satisfying public needs. This particularly happens in less developed countries with a lower level of fiscal capacities.

A formal model of optimal government size was presented by King (1996). Even though this model relies on restrictive assumptions, it brings interesting considerations into the fore. King argues that the optimal size of the government changes through time, and despite the significant costs of structural reforms, the size has to be periodically revised if we want to preserve an appropriate level of allocative efficiency.

Usually, the optimal government size concept is given by the trade-off between the economies of scale brought by decreasing costs of larger government and burden of overcrowding of particular government territory. Having in mind that the high level of quality of life in large cities in Europe, we can relax the boundary related to number of inhabitants as the burden which provides incentives for smaller government. The reason for such relaxation is due to the fact that amalgamation procedures go from the local government with lowest number of inhabitants and in this way respect the government size from bottom up. The more important aspect is the level of democracy on the local level that should be on the higher level given the smaller government. However, the question is what kind of democracy is valid in case of small governments that are not able to finance any outlays other than administrative ones. This is more the truth the more country is less developed.

The advantage of having fragmented subnational governments is in matching local residents preferences as close as possible to provision of local public goods and services. If there is such a match, we can say that there is optimal allocative efficiency and the welfare of local inhabitants is maximized. However, there are several obstacles that prevent the occurrence of such ideal case. There are inter-jurisdictional costs of benefit externalities (or spillovers), economies of scale and administration and compliance costs of the government that make argument for more consolidated local governments. Therefore, there is an optimal size of government defined by the intersection of these two opposing principles.

In addition, there is a clear relationship between the degree of decentralization and the level of economic growth. The more the country is developed, the more it can enjoy in the benefits of decentralization. Due to the abundance of the resources and higher level of mobility of local residents, specific local preferences will more diversify among local governments. On the contrary, when the economy is poor, there is not much difference between the local governments because, and, due to the lack of resources, they can provide only minimum level of local goods and services.

The table 1 presents an overview of local government size in EU-27 countries. In 2010, the average European municipality had 5592 inhabitants over a surface area of 49 km². However, across the countries we can observe significant disparities both in terms of population and surface area in per capita terms.

In the cases where maximum number of inhabitants does not reach minimum level of economic efficiency, and there is no political will to introduce amalgamation reforms, there are two possible alternatives to overcome to costs of fragmentation. First, cooperation between governments in many activities can enable reaching the optimum economic level. This refers to voluntary creation of federations of several smaller governments or creation of intermunicipal enterprises that usually offer communal services such as public transport, energy sector, water and sewer. Second solution refers to outsourcing of part of activities to private sector companies.

Such processes can be noticed for the last several years through the reforms at the municipal level that has encouraged inter-municipal cooperation and municipalities to merge. Cooperation between municipalities for some time is in the process in many different European countries (Hungary, Finland, Austria, Estonia, Bulgaria, Portugal, etc.). In addition, several countries amalgamated their local governments in rather voluntary manner such as in Denmark in 2007 where the number of municipalities dropped from 270 to 98, Latvia in 2009 where they went from 524 to 119, and Greece in 2010 with a rather aggressive approach to reform (from 1,034 to 325). Such municipal reforms are also set in England, Northern Ireland, Finland, Netherlands, Germany, Luxembourg and France (Dexia, 2011).

One of the consequences of sub-national government territorial fragmentation was the fact that there were substantial differences between municipalities and cities in terms of territorial size, number of inhabitants, and technical, economical and financial capabilities of these governments to deliver standard level of local goods and services. The problem is that, at the beginning, the functions and responsibilities given to the same layer of government were equal besides these obvious differences. Later, these differences had to be overcome by formation of new entities and levels of government which introduced different levels of responsibilities depending on the real possibilities of sub-national governments (this refers to “independent competencies” and “delegate powers” in Czech system or “large” cities in Croatia,

for example). Despite of such attempts to overcome the problems of lack of economies of scale, research on the optimal size of local governments determine that the costs and quality of delivery of local goods and services are severely compromised in case of local governments with less that 500 inhabitants (Ladner and Steiner, 2003, acc. to Hemmings, 2006).

Table 1 – Population, surface area and number of 1level local governments in the EU-27 Member States in 2010

	Population (thousands)	Surface area (km ²)	1st Level (municipalities and local authorities)	Population (thousands)/number of local governments	Surface area/number of local governments
Countries with one subnational government level					
Bulgaria	7,547	111,002	264	28,6	420,5
Cyprus	804	5,695	378	2,1	15,1
Estonia	1,340	45,227	226	0,6	200,1
Finland	5,363	338,145	342	15,7	988,7
Ireland	4,476	69,797	114	39,3	612,3
Latvia	2,239	64,589	119	18,8	542,8
Lithuania	3,287	65,300	60	54,8	10,9
Luxembourg	507	2,586	105	4,8	24,6
Malta	414	316	68	6,1	4,6
Portugal	10,636	92,152	308	34,5	299,2
Slovenia	2,049	20,273	210	9,8	96,5
Countries with two subnational government levels					
Austria	8,370	83,871	2,357	0,4	35,6
Czech Republic	10,538	78,868	6,250	16,9	126,2
Denmark	5,546	43,098	98	56,6	439,8
Greece	11,305	131,957	325	34,8	406,0
Hungary	10,000	93,029	3,177	3,15	29,3
Netherlands	16,611	41,528	430	38,6	96,6
Romania	21,431	238,391	3180	6,7	75,0
Slovakia	5,430	49,034	2,928	185,5	16,7
Sweden	9,378	449,964	290	32,3	1551,6
Countries with three subnational government levels					
Belgium	10,883	30,528	589	18,5	51,8
France	64,812	632,834	36,682	1,8	17,3
Germany	81,744	357,027	12,104	6,8	29,5
Italy	60,468	301,336	8,094	7,5	37,2
Poland	38,191	312,685	2,479	15,4	126,1
Spain	46,073	505,997	8,116	5,7	62,3
United Kingdom	62,195	243,820	406	153,2	60,1
TOTAL EU 27	501,636	4,409,047	89,699	5,6	49,2

Source: Dexia, 2010

Surprisingly, the research on the impact of mergers provides evidence for improved quality of local government service but does not find evidence on significant cost savings (Hemmings, 2006). This might be explained by the fact that measures that stimulate mergers usually come with increased level of resources given to the local government which decreases incentives to reduce costs. It is also possible that large governments take over additional responsibilities that have to be financed.

LOCAL GOVERNMENT EFFICIENCY IN CEE COUNTRIES

Most of the CEE countries followed the similar path of the decentralisation process. From the establishment of intergovernmental systems in 1990s in most of the countries there was a too large number of municipalities and regions. The common feature was continuation of territorial fragmentation which lead to creation of additional local governments which imposed problems to extending autonomy and legal power to the local governments.

The Czech Republic provides a good example of such common process. After territorial reform that established subnational territorial boundaries in early 1990s, in year 2000 there was a further decentralisation process that created 14 regional governments which replaced a network of 76 administrative districts (okresy). Despite this reform these regions were still not large enough to qualify as the “NUTS2” regions for EU-regional funding purposes. The population of these regions ranges from 300000 to 1.3 million. The problem is that the subnational government is even more fragmented in regards to municipalities. There are 6243 municipalities with large differences in terms of population (Hemmings, 2006).

The same scenario is noticeable, for example, in Croatia where there are 21 regions formed (same as in Czech Republic, the capital of Croatia, Zagreb, has a dual powers of region and city) with more than 400 cities and municipalities. This number in time has grown to 570 municipalities. Even though this number is quite lower than the number of municipalities in Czech Republic there are continuous discussions in last several years about the need of amalgamation of these government to much lower number.

One of the key drivers of latest revival of amalgamation debates is in effects of economic crisis that spill-over to central and local government budgets. The need for central government transfers is increasing in times when central government budgets are under pressure towards fiscal consolidation i.e. reduction of deficit financing.

One of the consequences of subnational government territorial fragmentation was the fact that there were substantial differences between municipalities and cities in terms of territorial size, number of inhabitants, but technical, economical and financial capabilities of these governments to deliver standard level of local goods and services. The problem is that, at the beginning, the functions and responsibilities given to the same layer of government were equal besides these obvious differences. Later, these differences had to be overcome by formation of new forms and levels of government which introduced different levels of responsibilities depending on the real possibilities of subnational governments (this refers to “independent competencies” and “delegate powers” in Czech system or “large” cities in Croatia, for example). Despite of such attempts to overcome the problems of lack of economies of scale, research on the optimal size of local governments determine that the costs and quality of delivery of local goods and services are severely compromised in case of local governments with less than 500 inhabitants (Ladner and Steiner, 2003, according to Hemmings, 2006). Over half of Czech municipalities have population below 500.

In order to overcome the problem of fragmentation, the changes of municipalities’ tax allocation formula are introduced in 2001 – the governments are motivated to merge due to higher portion of allocation to larger governments. Due to such incentives such municipalities could gain 40% higher tax revenues by merging with other government. However, there are still no records on merger of governments which shows high level of political benefits in hands of political representatives that govern municipalities.

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Interesting phenomena is visible in countries when it comes to region formation. Even though the countries were fully aware of the EU regulations and regional system of funding which requires regions

between 0.8 and 3 million inhabitants (NUTS2), they constructed regions that did not comply with these demands. Together with statistical implications this made regional administration and policymaking more complicated.

Interestingly, the level of sub-national government indebtedness in all of the SEE countries is very low (usually averages 1 % of GDP). The reasons for such state is that in most of the countries there are hard budget constraints (balanced budget rule) imposed with control of central government in form of approvals for deficit financing. The low level of local government debt is particularly positive in these times of fiscal stress; however, the question remains what is the effect on local government investments. In addition, there are many benefits of financing investments through borrowing particularly in terms of efficiency and impact on local economic growth.

So far, the tax autonomy in SEE countries was very limited relative to western decentralised economies. Intergovernmental systems in SEE countries heavily rely on central government transfers towards subnational levels – either through the transfer of revenues from major taxes (Vallue added tax - VAT, Personal income tax - PIT and Corporate income tax - CIT) or conditional or unconditional grants.

FISCAL POLICY AND LOCAL GOVERNMENTS IN TIMES OF CRISES

Usual framework of public finances considers the process decentralization in terms of function of allocation. However, contemporary research more and more attention devotes to the issues of fiscal federalism and macroeconomic stability (Shah, 2008). Common notion that regional (local) governments do not have role in stabilization policy is abandoned. This is particularly the case in recent economic crises where local governments in many countries are not any more passive observers and, on contrary, took proactive measures (see Clark, 2009). Regional (local) government employment is by itself a stabilizer of the economic cycle. In times of crises it is not easy to lay off government employees and some studies show that while employment of the private sector decreases sharply, employment in the regional/local government even increased (see Boyd, 2009).

However, such countercyclical activities are not common feature of all countries. They usually occur in developed economies. Less developed economies both on central and regional/local level engage in procyclical behavior. Procyclical fiscal policy and its impact on macro-stabilization and economic growth have been extensively studied. On the other hand, the effects of the imbalance between levels of government are much less studied. It is assumed that because there is a vertical imbalance in the federal system, local authorities have incentives to increase spending above the socially optimal level and have high deficits. Such a situation is definitely confirmed by cases of Argentina and Brazil. (Struzennegger and Werneck, p. 124).

In federal countries regional and local sector share responsibility for conducting of fiscal policy and thus mitigate economic shocks. The allocation of responsibility focuses on the distribution of stable and cyclically less sensitive revenue sources and expenditure responsibilities for local authorities. This becomes a bit difficult for regions in case that they have some responsibility that is cyclically sensitive, such as social assistance (Shah, 2008, p. 119). In addition, there is still not clear whether the fiscal risks are greater in decentralized systems.

Both Keynesian and neoliberal theories agree in the fact that during recession the authorities need to use deficit financing and lower taxes, and during the expansion have budgetary surpluses and raise taxes. These same recommendations come from different reasons. Neoliberals argue that such approach raises allocative efficiency, and Keynesians point out positive effects of short-term stabilization of aggregate demand management policies (Struzennegger and Werneck, 2008, p.126).

Subnational governments in developed countries were strongly pressured towards fiscal consolidation effort by imposing "hard" budget constraints, and at the same time to additional efforts to increase the efficiency of their activities. It is believed that long-term fiscal sustainability is possible only in this way through the introduction of strict fiscal rules. More importantly such efforts should reduce negative effects of fiscal shocks (Sutherland, Price, Joumard, 2006). However, the fact is that pressures to reduce expenditures of the local sector comes more as a consequence of the increasing spending of the central government and extrabudgetary funds.

Regarding the effects of economic crises on local governments there are several important issues that define the scope and extent of these effects and possible outcomes of local government responses for mitigating the crises:

1. fiscal rules that bind the autonomy of local government spending
2. level of local tax autonomy and structure of local government revenues

3. institutional factor – fiscal transparency

Fiscal rules should prevent the unsustainable growth of debt and spending at the local level. Most commonly used fiscal policy is a policy of balanced budgets. Besides that, the usual tools are restrictions on borrowing and limits on tax rates. However, the general problem is that fiscal rules essentially do not succeed to restrain local spending. Local government spending is a result of numerous factors and politically sensitive programs that are difficult to connect with the objectives of budgetary spending limits (Sutherland, Price, Joumard, 2006, p. 6). This problem is even intensified in cases where there is insufficient awareness of the need for long-term planning of revenues and expenditures and program spending.

Nevertheless, studies show that the rule of balanced budgets and borrowing constraints lead to long-term sustainability of local fiscal policy¹. Local governments under these rules experience faster adjustment of fiscal shocks, especially by reducing expenditure. (Sutherland, Price, Joumard, 2006, p. 38). There are five criteria necessary for setting up the appropriate fiscal rules (Sutherland, Price, Joumard, 2006, p. 7):

1. long-term fiscal sustainability
2. short-term economic stability
3. aggregate efficiency - in the sense of equalizing marginal benefits from public spending to limit the damages caused by taxation
4. allocative efficiency of public spending, which is manifested in matching quantity and quality of public services with local preferences
5. possibility to maintain the redistributive elements within the system, it should not come into question - the minimum standards should remain the same

The level of the tax autonomy is one of the crucial issues when analyzing possible effects of economic crises on local governments. Higher tax autonomy will give more power in hands of local government in combating the effects of crises. This is especially the case in federal countries with high level of fiscal transparency and high level of tax competition. In both cases local governments will try to keep the taxes low. Also, the distribution of tax revenues, which exposes the local communities who are vulnerable to cyclical fluctuations, will reduce the tendency to conducting the procyclical fiscal policy (Sutherland, Price, Joumard, 2006, p. 6). In any case, regardless of the way to curb excessive spending and taxes at the local level, fiscal transparency helps the sustainability of the budgets of local governments.

Many countries have developed procedures to ensure budget balance in the range of consultations with central authorities in case of realization of the deficit or making consolidation plans. There are also more strict measures, such as drafting of a new budget. However, in the event of a crisis rigid rules constitute an aggravating circumstance for countercyclical action of local governments. In majority of countries there are no measures envisaged in the case of the fiscal crisis caused by the economic shock. However, there are some exceptions (see Table 2).

Table 2 – Coping with the cycle

Sub-central governments						
	Can draw on		Can cut mandated expenditures	Revenues are adjusted to		Receive special financial support
	Rainy day or reserve funds	Off-budget funds		Projected cyclical fluctuations	Actual shocks	
Canada state	+	+		+		
Canada local	+					
Czech Republic		+				
Denmark				+		

¹ However, the majority of research is related to the USA economy.

Finland	+	+	+		+	+
France						+
Germany state			+			
Germany local					+	
Japan	+					
Netherlands	+					

Source: Sutherland, Price, Joumard, 2006, p. 28, adapted by the author

Additional problem for less developed economies is that their local governments are prone to conduct procyclical fiscal policy. A strand of contemporary literature tries to provide an answer why that happens. There are several potential explanations. In addition to argument of severe credit constraints in less developed economies during crises, some authors claim that the main reason for that is the so-called “voracity effect” proposed by Lane and Tornell (1999). They argue that during the period of boom some groups try to appropriate the surplus of resources. The competition between groups is more fierce the larger is the amount of available resources. Because of that the common pool problem is more intensified during the expansion (Struzennegger and Werneck, 2008, p. 126).

The more decentralized country is, it is harder to maintain countercyclical fiscal policy. Particularly in case where local authorities have a greater part of government spending in their jurisdictions. Since they have no responsibility for stabilization policy there is an increased likelihood that in time of economic expansion they will set off in procyclical spending (Perry at al., 2008, p. 17). For example, case of Argentina provides example of such procyclical behavior of local governments. It is interesting that smaller local governments conducted more procyclical policy. Furthermore, it was shown that tax revenues are more procyclical than transfers of central government (particularly local sales taxes).

Finally, the effects of financial markets are not irrelevant. It is well known that in times of crisis the cost of financing in developed countries fell, while in Eastern Europe significantly increased. Moreover, banks were not willing to finance the local community in order to ensure their own credibility and to isolate themselves in case of potential new financial shocks. Thus, the possibilities of refinancing of obligations are reduced and together with the additional pressure for reduction of transfers from the central government, it became hard to service the commitments from previous periods. Therefore, the local governments are not able to conduct countercyclical policies in their jurisdiction. Even if the local government has a flawless history in terms of fiscal credibility they might have problems with financing provision of goods or services. In time of crisis interest rates are rising and banks refrain from lending which has procyclical effect.

It has to be stated that existing fiscal rules are still far from being perfect, especially in context of mitigating the effects of economic crises. These rules depend on the objectives of fiscal policy of local governments which can be directed towards debt sustainability and short-term stabilization, reducing inequality, etc. There is certainly great need for establishing better rules that would contain elements of stabilization policy. Two important features of these rules that one should consider are: countercyclical transfers from the central government to ensure the smooth functioning of local authorities and use of stabilization funds (rainy-day funds).

RESPONSE OF LOCAL GOVERNMENTS

As it was already noted, the possibility of regional (local) government units in proactive behavior towards mitigating the effects of economic crises depend largely on the given tax autonomy. Since the tax autonomy of local governments in Croatia is very limited one cannot expect significant measures conducted by the local sector. The only form of taxation which may have important effect is the change of rate of local surtax on personal income tax. Other possible sources are communal fees. Therefore, majority of measures that can be conducted fall in the area of local government spending.

Regarding the local government spending, majority of governments didn't conduct any proactive measures in combating the economic cycle. However some measures of limited scope and extent can be listed¹:

Some units adopted measures to reduce expenditures. Guidelines were sent to budget users to save up to 20% of revenues based on clearly defined priorities of financing. These savings were partly related to expected effects of fall of revenues and budget deficits caused by excessive spending in previous period (mainly by financing infrastructure from current revenues);

Some units decreased and other increased communal fees;

In many local governments tax revenues did not fall significantly. However, some units postponed planned sale of property due to lower prices of assets which decreased total revenues;

Some units experience high level of repayments for the infrastructure financed in recent period and are forced to cut other expenditures. In many cases these objects exert high costs of maintenance;

Certain local taxes are reduced. However, due to low rates this effect is negligible in terms of decreasing the tax burden for the local businesses;

Numerous local government conduct minor spending cuts more oriented towards showing fiscal discipline to the citizens (i.e. cutting the spending of city departments). However, these spending cuts are also negligible in terms of economic effects;

In some cases the wages of local government employees are decreased;

Grants and subsidies are increased in lesser extent.

The effects of economic crises on regional (local) governments in Croatia can be observed through fall of revenues and expenditures. In that sense, subnational public sector just follows the economic shock and does not have any significant countercyclical potential. There is no systematic behavior. Some measures are conducted in certain jurisdictions and motivated by gaining political points. It seems that overall effect of local government is procyclical but it cannot have significant effects on macroeconomic stability due to low level of decentralization and limited tax and expenditure autonomy of the local sector.

References

1. Bajo, A, Bronić, M: Fiscal decentralization in Croatia – problems of fiscal equalization, Institute of public finance, Occasional paper No. 25, 2005
2. Boyd J., Donald: State/Local Employment Up Slightly Since Start of rEcession, But Cuts are Now Underway, Fiscal studies, 2009, www.rockinst.org
3. Bronic, M.: Personal income tax and surtax sharing in Croatia, Institute of Public finance, Newsletter, No.27. 2007, available at <http://www.ijf.hr/eng/newsletter/27.pdf>
4. Clark, Greg: Recession, Recovery and Reinvestment: the role of local economic leadership in a global crises, Local Economic and Employment Development Programme, OECD, 2009
5. Fox.F, William, Gurley, Tami (2006): Will Consolidation Improve Sub-National Governments?, The World Bank, Policy Research Working Paper, 3913
6. Hemmings, Philip (2006): Improving Public-spending Efficiency in Czech Regions and Municipalities, OECD Economics Department Working Papers No.499
7. IMF (2009): Macro Policy Lessons for a Sound Design of Fiscal Decentralization – Background Studies, IMF's Fiscal Affairs Department
8. Ministry of Finance – Tax Administration, 2010 (<http://www.porezna-uprava.hr/en>)
9. Ministry of finance, <http://www.mfin.hr/>
10. Ott, K., Bajo, A: Fiscal Decentralization in Croatia - Introductory Paper for the Proceedings of the FDI Forum, FDI Proceedings. Zagreb: The Fiscal Decentralization Initiative for Central and Eastern Europe: Institut za javne financije, 2003
11. Perry, E. Guillermo, Serven Luis, Suescun Rodrigo, Irwin, Timothy: Overview: Fiscal policy, Economic Fluctuations, and Growth, Fiscal Policy, Stabilization and Growth, Prudence or Abstinence, The World Bank, 2008, p. 1-39
12. Shah, Anwar: Federalism and Macroeconomic Performance, Macro Federalism and Local Finance, Public Sector Governance and Accountability Series, The World Bank, 2008, p. 107-143

¹ This part is based on interviews with local government officials and official documents of local governments.

13. Sturzenegger Federico, Werneck L. F., Rogério: Fiscal Federalism and Procyclical Spending: The Cases of Argentina and Brazil, Fiscal Policy, Stabilization and Growth, Prudence or Abstinence, The World Bank, 2008, p. 121-157
14. Sutherland, D., Price, R., and Joumard, I.: Fiscal Rules for Sub-Central Governments: Design and Impact, OECD Network on Fiscal Relations Across Levels of Government Working Paper N.1., 2006
15. Tornell, A. and Lane P.R.: The Voracity Effect, The American Economic Review, Vol. 89, 1, 1999, p. 22-46,

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IDENTIFICATION OF THE AREAS OF THE PRODUCTION KNOWLEDGE IN STANDARDIZED WORK DOCUMENTATION

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ABSTRACT

This paper concerns the identification of the areas of the production knowledge in standardized work documentation. Production knowledge management and standardized work were briefly described as well as their relations. Standardized work documentation was presented as a production knowledge management tool. The paper demonstrates the results of the research studies that have been conducted by the research team at Faculty of Management at Warsaw University of Technology in 2012 (grant: “Standardized work as a method to codify production knowledge management”). The study concerns the recognition of the areas of the production knowledge in standardized work documentation. The research refers to the possibilities of using tacit knowledge by standardized work documentation.

Key words: standardized work, Lean Manufacturing, knowledge management, production knowledge management, production knowledge

1. INTRODUCTION

Within international organizations, **knowledge management** has been known for several dozen years. However, it is still not used in a wide range of manufacturing companies, because its practical utility is not yet recognized in an operational activity. Manufacturing companies are interested in management concepts which are directly dedicated to the manufacturing area. The solution to that problem could be an implementation of a new concept of **production knowledge management**, which directly refers to manufacturing field.

The other solution, in fact, uses interest in modern **manufacturing management concepts**. Recent years have shown increased interest of international organizations in these concepts, including, but not limited to: Lean Manufacturing, Agile Manufacturing, Theory of Constraints, Kaizen, or Six Sigma. The intense development of the mentioned concepts is driven by the development of supporting methods and tools. Originally adaptable to manufacturing management, these tools may be seen both as production knowledge carriers and production knowledge management methods, and, as such, they constitute the subject matter of this paper in so far as they relate to standardized work.

2. PRODUCTION KNOWLEDGE MANAGEMENT

Production knowledge management is a relatively new area – first definitions of the “production knowledge management” appeared in 2009 [Paszek, 2009]. Production Knowledge Management is the process of acquisition and development, codification, transfer and use of production knowledge, with particular components interacting, whose execution is supported through the use of suitable methods, techniques, and tools (Figure No. 1).

The very concept of knowledge management has been developing since the 1960s. In the 1960s it was noticed for the first time that knowledge gathered through experience can be applied to solve repeatable problems within various organizations [Perechuda, 2005]. The knowledge management concept is detailed in numerous reference publications [Nonaka & Takeuchi, 1995; Probst, 2002; Davenport & Prusak; 2000]. The literature of the subject offers various approaches to knowledge management, e.g.