FISCAL DISCIPLINE AND BUDGETARY
INSTITUTIONS IN UKRAINE

by

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Abstract

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Chairperson of the Supervisory Committee:

This work is an attempt to apply experimental methodology of evaluating a public finance management system suggested by Von Hagen (1992) to Ukraine. The purpose of this work is to determine how institutions affect the fiscal discipline in the country. In order to measure this relationship we complete three steps. First, we determine institutional arrangements that are crucial for achieving fiscal discipline. Second, we assign index values to each of these arrangements. Third, we determine the correlation between the variables of budgetary institutions and fiscal discipline. Finally, we compare fiscal performance of public sector in Ukraine, former Soviet republics, and the advanced transition countries.

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GLOSSARY

Appropriation. Authorisation granted by a budget law in a fixed amount which allows the Treasury to assign and make payments for particular purposes from the revenue of the State budget, or local Treasury Departments to make payments for local government purposes from local government budget revenue.

Approved budget revenue / expenditure. Planned budget revenue / expenditure, which is approved by the Parliament at the beginning of fiscal year.

Combined budget. The amount of the State budget, the local government budgets from which transfers – direct mutual monetary funds transfers to various budgets – have been deducted.

Executed budget revenue / expenditure. Actual budget revenue / expenditure, which is approved by the Parliament, at the beginning of fiscal year.

Extrabudgetary funds. Units outside the budget that collect money through, e.g., the imposition of taxes or compulsory levies, or are created with some charitable purpose, and which are meant to provide non-market goods and services.

Government. Executive branch of the power, usually Cabinet of Ministers, which prepares the budget project and implements the Budget Law.

Macroeconomic program. A program in which accessible resources are specified for more than two years and the use of such resources is ensured in conformity with the priorities specified by government.

Public agencies. Bodies financed from the budget; budget institutions, State and local government agencies, all undertakings (companies) and organisations financed fully or partially directly from the budget.

Chapter 1

INTRODUCTION

A basic problem in all transition economies is to achieve effective control over the government budget. The reason is that before the beginning of transition these economies had very large government and public enterprise sectors, which makes it difficult to distinguish monetary and fiscal policy. Since a planned economy has no private sector, it has no separate public sector. This implies that there is no public sector deficit or debt as such. As the economies move through the transition, privatization creates a private sector and thus the concept of public sector comes into effect.

Why is it important to control the budget and especially fiscal balance? Many economists blame wrong macroeconomic policies (and in particular large budget deficits) for the poor macroeconomic performance of much of the world economy since the early 1970s (Roubini and Sachs, 1989b, p.904). Although some authors (e.g. Fischer and Sahay, 2000, p.10) point out that there is no clear relationship between the fiscal balance and GDP growth in transition economies, we believe that, if take into account all measurement errors in reported fiscal balances across transition countries, the relationship would exist[1]. Most transition countries financed their fiscal deficits in distortional ways, i.e. partly by external and internal debt accumulation and partly by some form of highly distortional taxation, for instance seignorage. These distortional ways of deficit financing could not disappear without trace.

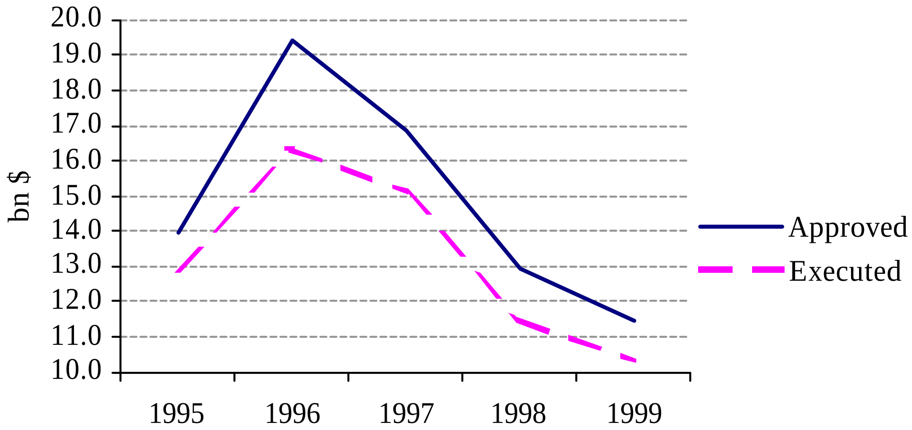
Since the transition is from a centrally planned economy, achieving control over the budget is connected with the problem of reducing and restructuring government expenditure and strengthening the government system of tax revenue. This means that fiscal reform involves distributional conflict. Problem of reducing government expenditure in Ukraine as well as in other former Soviet Republics is closely related to the issue of government subsidies and tax exemptions (German Advisory Group, 2001, p. 41). Distributional conflict arises because state enterprises and collective farms benefit from these subsidies and all the other enterprises are usually net losers. Economic literature (e.g. Spolaore, 1993) predicts that distributional conflicts delay active reforms, because different groups of society try

[1] Measurement errors are mainly due to including into reported expenditure only part of real government expenditure.

to influence allocation of the reform's costs and benefits in a way which is the most advantageous for them.

Present situation in the Ukrainian public sector may serve as an illustration of the delay in active reforms. As you can see from the figure 1.1, over the last five years received budget revenues were lower than the approved ones. Ukrainian budget only received an average of about 89% of approved revenue.

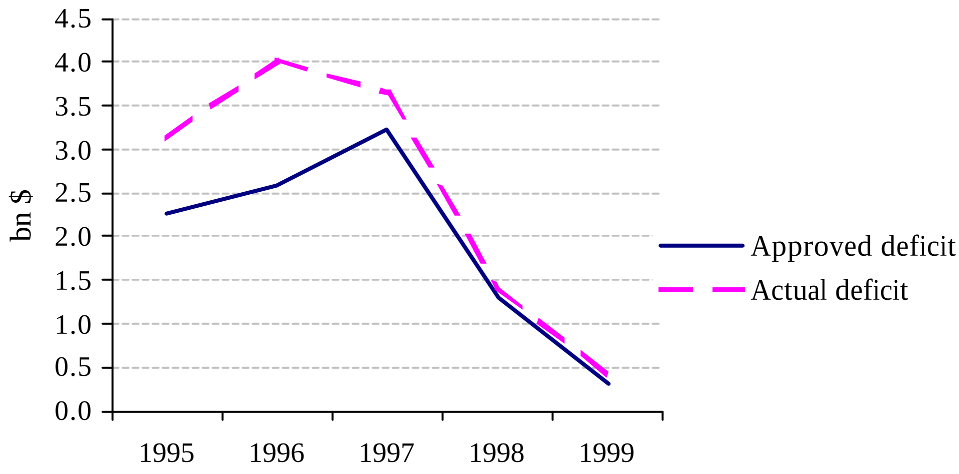
Figure 1. Combined Budget of Ukraine: Revenues



Source: Ukrainian Economic Policy and Legal Advice Center (UEPLAC), State Treasury of Ukraine

As a result, budget deficit always exceeded the approved one.

Figure 2. Combined Budget of Ukraine: Deficit



Source: UEPLAC, State Treasury of Ukraine

The other striking fact is a volatile change of priorities during budget execution. For example, in 1998 the amount received by judicial branch was almost 2.5 times higher than the approved one, while health care received only 92% of approved amounts, and wages in the public sector and social payments were covered only by 66% (Ãîí÷àø ³ Ïèíçåíèê, 1999, p. 57). Hence, similarly to other transition countries one of the main fiscal challenges for Ukraine is to ensure maintaining a low fiscal deficit and improving the allocative and redistributive efficiency of government resources. Without efficiency gains, fiscal stabilization could require spending cuts and taxation of a magnitude capable to endangering the political sustainability of stabilization effort and economic recovery. The answer lies in the effectiveness of fiscal management – the principles, institutional arrangements, and techniques that govern the budget process (World Bank, 1997).

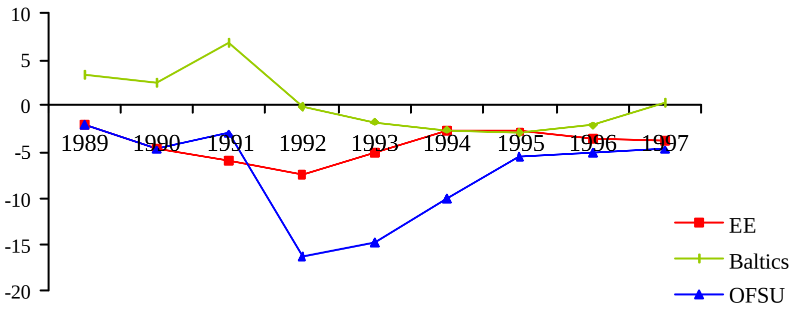
Institutional changes can help to avoid fiscal inefficiencies. Of course, institutions do not make the distributional conflicts disappear. However, by defining the rules of the game they determine the ways in which the opposing parties can present and defend their claims. Institutional rules divide the decision-making process into steps and determine which steps are taken when. They assign the roles to different actors of the budget process and distribute strategic influence. A basic claim is that institutional rules have systematic effects on the outcome of decision-making process they govern. Hence, the first task we try to complete in this paper is to determine how budgetary institutions affect fiscal outcome, namely fiscal discipline represented by ratio of budget deficit to GDP.

The second task of this work is to document the differences in budgetary institutions across the group of transition countries[2] for 1999. As figure 1.3 shows, Baltic and Eastern European (EE) countries on average had much lower fiscal deficit than the countries of the former Soviet Union (OFSU)[3] and in this paper we try to explain why it is so. Von Hagen (1992) showed that budgetary institutions are crucial in explaining the difference in the fiscal performance of the European Union countries. We use von Hagen's (1992) methodology to complete both of our tasks.

[2] This group includes all former Soviet republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, and six countries of Central and Eastern Europe: Bulgaria, Czech Republic, Hungary, Poland, Romania, and Slovak Republic.

[3] We divide all studied countries into three groups: Baltics, EE, and OFSU following Fischer and Sahay (2000) suggestion. They showed that it is useful to study these countries in the mentioned groups because these groups turned out to have some homogeneous characteristics.

Figure 3. Fiscal Balance (percentage of GDP)



Chapter 2

LITERATURE REVIEW

Public finance literature gives no unique definition of fiscal discipline. Different authors use different measures of fiscal discipline, but usually it is characterized by three indicators. They are: ratio of public spending to GDP, ratio of budget deficit to GDP, ratio of debt to GDP.

In the former Soviet Union, the category of "fiscal discipline" was not the object of scientific research. The main related issues were social security, the government support of enterprises, and the maintenance of civil service. Such situation can be explained by the fact that the whole economy was expenditure-oriented, and therefore it would have been illogical to introduce management and control of public expenditure. Since only the problems of allocation and prioritization of public expenditure were paid attention, the mechanisms of achieving the aggregate fiscal discipline and efficiency in the use of public funds were not addressed.

The relevant economic literature analyzes the issue of fiscal performance quite extensively. We can distinguish two stages of development of economic thought concerning fiscal policy. The first stage can be characterized by search for purely economic determinants of fiscal policy. This kind of literature includes studies trying to explain the growth of government expenditures by the fact that the whole economy grows. This link was first formulated as 'Wagner's Law'. Wagner attributed the growth of government expenditures to the growing responsibilities of government in the process of industrialization. Although this link seems apparent at first glance, empirical studies generally found no or little support for it (e.g. Larkey et al., 1981).

A distinctive feature of the second stage of literature development is an attempt to incorporate political and institutional factors to explain fiscal performance. Here we will mention only the contributions to politico-economical literature, which reflect the specificity of transition economies. "Tax smoothing" theory by Barro (1979) and Lucas and Stokey (1983) serve as a normative benchmark from which political economy models depart. In fact, most of the recent models are "positive" explanations of the fact that observed fiscal policies deviate from tax smoothing.

We will start from the "tax smoothing" approach to the government budget. Later we will briefly consider some of the 'positive' models, namely a group of models based upon opportunistic policy makers and naïve voters with fiscal illusion, models of intergenerational redistributions, and finally models emphasizing the effects of budgetary institutions.

2.1. Tax Smoothing Theory

The main idea of 'tax smoothing' theory is that it is optimal for the government to keep the tax rate constant. This result is derived from the following model. A benevolent social planner (government) maximizes the utility of the representative agent. Both live infinitely and the latter can consume, work, and save. The government finances its spending by taxes on labor income, which are distortional since they affect labor supply.

By maximizing the lifetime utility function of the representative agent the benevolent social planner arrives at the result that the tax rate should be constant over time. That is why we should observe the following pattern of the budget deficit– deficits when government spending is temporarily high and surpluses when it is low. An intuitive explanation of this result is that if the government is expected to have high expenditure this period and low expenditure next period it is better to have constant taxes over two periods then high taxes this period and low taxes later, because a distortional effect from high taxes now is higher than welfare benefit from low taxes later (due to decreasing marginal utility).

So the principle of tax smoothing is – budget deficits and surpluses are used optimally to minimize the distortional effects of taxation, given a certain path of spending.

If we look at this model as a 'positive' one, our conclusion will be that deficits should be observed during the recessions and surpluses – during the expansions. On the whole evidence of the U.S. and the U.K. supports the basic principles of tax smoothing (Barro 1985, 1986). However, Alesina and Perotti (1995) argue that this theory can hardly explain why we observe growing budget deficits during recent years and why the difference in the deficit to GDP ratios is so big across countries.

2.2. Model of Fiscal Illusion

The idea of this model is that voters do not understand the intertemporal budget constraint of the government: they do not realize that high government spending today will be compensated by an equal increase in taxes tomorrow (Buchanan and Wagner, 1977). That is why they overestimate the benefits of current expansionary fiscal policy and support opportunistic politicians who follow such policy. Thus the model explains persistent deficits.

Rational expectations approach criticizes this model on the grounds that it is not a priori clear why economic agents should systematically overestimate the benefits of expansionary fiscal policy. As Allesina and Perotti (1995) stress, "There is a crucial difference between "errors" and "illusion". If voters make uncorrelated errors, on average they do not overestimate or underestimate the costs and benefits of taxes and spending. An "illusion" implies a systematic bias in these errors. While it is uncontroversial that voters make mistakes and are imperfectly informed, it is not at all obvious why the mistakes should be biased in a certain direction, i.e. underestimation of tax burden relative to the benefits of spending."

However, we believe that the model of fiscal illusion may explain budget deficits in transition countries and especially in the former Soviet republics quite well. The reason is that the period of independence is not long enough for voters to learn their errors from the past. Ukraine, for instance had parliamentary elections only three times and the share of parties supporting large government spending was growing with each election. Thus we may observe the fact that voters do not understand yet the basic principles of public finance management[4].

2.3. Models of Distributional Conflicts and Wars of Attrition

This group of models considers the coalition government, members of which are representatives of different parties. These parties have different preferences over the composition of government spending; for simplicity it may be described as one party likes "defence" and the other likes "social welfare".

Spolaore (1993) uses "war of attrition" model to describe how coalition governments delay fiscal adjustments. The model considers shocks that lead to budget deficit. After the shock, deficit is financed partly by external debt and partly by some form of distortional taxation, for example

[4] In no way we prove this link for Ukraine here; we just explain why the model of fiscal illusion *might* be appropriate for transition countries.

seignorage. In order to stabilize the deficit/GNP ratio government should switch to less distortionary taxation, which is called fiscal adjustment.

Spolaore determines an optimal policy as a policy that would have been implemented by a social planner or single-party government. Optimal policy is a function of the costs of adjustment and the persistence of a shock. Spolaore (1993) takes this optimal policy as a benchmark and shows that the coalition government delays adjustment. This result arises because different parties represent the interests of different people and each of them would like to avoid taxes. A coalition government delays the fiscal adjustment until marginal cost of delaying the decision becomes equal to marginal benefit of it. As a result, a coalition government does not adjust so often as a single-party government would do.

In summary, the less solidarity in the government, the more difficult is to achieve an agreement on an equitable distribution of costs of fiscal adjustment. That is why the longer are the delays in fiscal adjustment, and the higher is the level of budget deficit. Spolaore (1993) also showed that inefficiencies in policy reactions grow with the number of coalition members.

Empirical evidence supports the hypothesis proposed by Spolaore (1993). Roubini and Sachs (1989b) studied the determinants of growing budget deficits in OECD countries. They found that, the higher the number of parties in a coalition government, the higher the public debt.

The relevance of this model for transition economies lies in the similarity of government structure – almost all former Soviet republics have multiparty governments and most of them are characterized by accumulation of budget deficit and delay in stabilization reforms.

2.4. Model of Budgetary Institutions

According to Branson, de Macedo, and von Hagen (1998) "Budgetary institutions are rules, both formal and informal, governing the decision making process that leads to the formulation of a budget by the executive, its passage through the legislature, and its implementation."

Recent politico-economical literature has explored the role of institutional arrangements in fiscal performance. This literature is based on the view that institutional structures, i.e. the arrangements determining who has what to do, when and how, have important effects on the final outcomes of the budgeting process.

Shepsle (1979a, b) built a theoretical model, which described how the specific institutional arrangements affect the properties of the equilibrium outcome. He distinguished three characteristics of budgeting procedures: a division of labour arrangement, a specialization of labour arrangement, and an amendment control rule.

A *division of labor* arrangement assigns individual actors to specific roles or in other words determines who has to do what. For example, a typical arrangement in the former Soviet republics is that government prepares a budget draft; parliament approves (or rejects) it; and then the government executes it. This arrangement is important because "it determines the agenda setter for the subsequent steps of the budget procedure" (von Hagen, 1992). The agent, which proposes some budget changes, can influence a final outcome, i.e. an approved budget.

A *specialization of labor* arrangement is an assignment of jurisdictions to groups of actors. For example, spending ministries have control over their own field. This arrangement is important because it determines who can affect budget articles, and whether the person(s) can affect only one article or many of them.

Finally, an *amendment control rule* specifies what type of amendments the parliament may adopt to the budget proposal. This arrangement is important because it determines what power the legislature has. If, for example, an open amendment rule is effective, the parliament may adopt any amendments. It means that in fact government has very little power and final outcome is almost completely determined by the parliament.

Von Hagen (1992) was the first who tested theoretical models of Shepsle and others. His work is the core of our paper. He hypothesized that: "Budget procedures lead to greater fiscal discipline if they give a strong prerogative to the prime minister or the finance minister, if they limit universalism[5], reciprocity[6], and parliamentary amendments and facilitate strict execution of the budget law."

[5] Von Hagen (1992, p.28): "Universalism refers to the property of budget proposals to 'contain something for everyone, i.e. to distribute favors more generously than an individual decision maker would want"

[6] Von Hagen (1992, p.28): "Reciprocity refers to the principle of not attacking another person appropriation proposal in return for her not attacking one's own."

Von Hagen (1992) focused on the budgetary institutions of the European Union countries. He constructed indices that summarized budgetary institutions over the following dimensions:

- The structure of negotiations within government;
- The structure of the parliamentary process;
- The informativeness of the budget draft;
- The flexibility of the budget execution;
- The long-term planning constraint.

Von Hagen found that several indices were significantly explaining cross-country differences in the budget deficit/GNP ratios in the 1980s.

Poterba (1996) conducted a research on budgetary institutions for the U.S, where states significantly differ in their budgetary institutions, namely in procedures for budget formation and 'hardness' of budget balance rules. He found that American states with 'harder' budget balance rules reacted quicker to a negative revenue shock or a positive spending shock.

Later Campos and Pradhan (1997) applied the methodology proposed by von Hagen to study how reforms in the public sector of New Zealand and Australia affected the size, allocation, and use of public expenditures. In particular, they constructed indices that reflected the level of the budgetary institutions before and after reforms. Using this methodology the authors analyzed and compared the New Zealand and Australian reforms within a common framework.

Thus we see that the approach proposed by von Hagen (1992) is a valuable tool for both comparison of fiscal performance across countries and over time. We will use it to explain differences in the fiscal performance across transition countries (Chapter 4) and establish a direction for future reforms of public sector in Ukraine. In the next chapter we will describe fiscal discipline and budgetary institutions in Ukraine.

Chapter 3

FISCAL DISCIPLINE IN UKRAINE

In this chapter we determine main objectives of fiscal policy in Ukraine, describe to what extend they are accomplished at present and how change of institutional arrangements can help to achieve them.

3.1. Objectives of Public Expenditure Management in Ukraine

According to public finance literature (Campos and Pradhan, 1997, p. 425) there are three main objectives that system of public expenditure management should achieve: high fiscal discipline, strategic prioritization of expenditure across programs, and efficiency of budget expenditure. As was mentioned in the previous chapter, high fiscal discipline means low ratio of budget deficit to GDP. Strategic prioritization means allocation of budget expenditure according to priorities of country development. Finally, efficiency of budget expenditure can be determined in the following way: a country is deemed to be inefficient if there are other countries that provide more output across all categories of government services but at lower levels of government expenditure (International Monetary Fund, 1998, p. 111).

In this paper we focus mainly on the first objective – fiscal discipline. There are two reasons for this. First, fiscal discipline can be easily measured as opposed to other objectives and hence can be used for statistical analysis and cross-country comparisons. Second, less advanced transition countries including Ukraine are primarily concerned with large budget deficits (see Figure 1.3); and the problems of strategic prioritization and efficiency of government expenditure are issues of so-called “second generation” reforms (International Monetary Fund, 1998, p. 98), toward which Ukraine is only approaching.

Achievement of higher fiscal discipline in Ukraine would help to encourage the rapid expansion of private sector activity by ensuring low and predictable inflation rate (Cornelius and Lenain, 1997, p. 24). Besides, continued prudent fiscal policies, which help to attain balanced budgets, also help to avoid diverting saving from needed private sector investment. It is now well established that countries that implemented tight fiscal policies early in the transition resumed growth sooner, and experienced more rapid growth subsequently, than countries that maintained unsustainable large budget deficits (International Monetary Fund, 1998, p. 99).

In the next three sections we will briefly consider current situation describing fiscal discipline and budgetary institutions in Ukraine.

3.2. Budget Execution in Ukraine: Comparison with Approved Activities

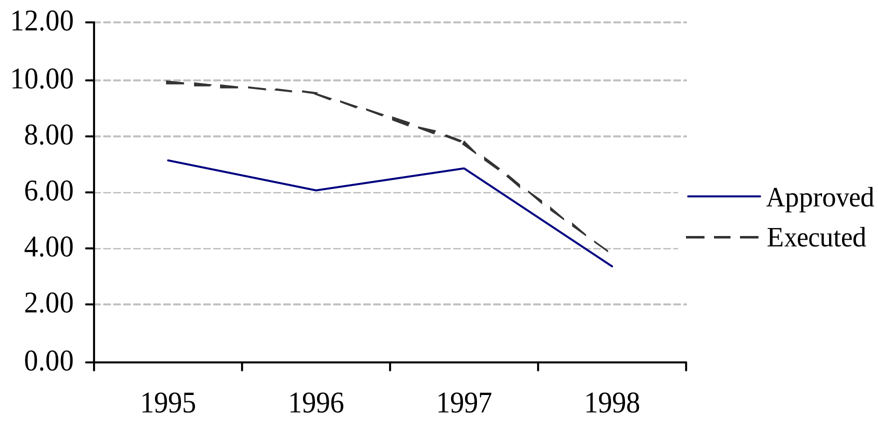
The problem of low fiscal discipline in Ukraine is mainly the result of poor enforcement of the Budget Law. If we compare approved budget deficit as percentage of GDP with executed one, we will notice that executed budget deficit is on average by 2 percentage points higher than approved one (see Figure 3.1).

Since 1995 Ukraine has experienced chronic underexecution[7] of both revenue and expenditure sides of the budget. The key reasons for this are the following. First of all, Ministry of Finance makes too optimistic forecasts of budget revenue, which causes too large plan of expenditure. Second, till 2000 economic recession narrowed tax base while keeping expenditure high[8].

Figure 4. Budget Deficit, % of GDP

[7] Here and further by underexecution of revenue side of the budget we mean situation when actual budget revenue (revealed at the end of fiscal year) is lower than planned one (revenue approved by the parliament in the Budget Law at the beginning of fiscal year). Analogously underexecution of expenditure side is situation when the actual budget expenditure is lower than the planned one.

[8] Government tried to bail out many poorly performing enterprises by providing subsidies and tax exemptions.



Imperfect forecasting technique leads not only to overestimation of budget expenditure, but also to growth of arrears[9]. Here is an explanation. Ukraine uses a cash method of budget execution. Under this method expenditures are financed within available budget resources. That is why underexecution of revenue side of the budget automatically leads to the cut of budget expenditures. As table 1.1 and figure 1.1 show during 1995-1998 the plan for the combined budget of Ukraine has not been executed, not even once. Expenditures were financed by 84-93% of approved amounts. Although this allows keeping cash balance at the predetermined level, it cannot prevent growth of actual deficit. The reason is that public agencies carry out their actual expenses according to approved appropriations. In other words, significant part of budget deficit is transformed into implicit form – bills payable. Table 1.1 shows that if we took into account the debt of public agencies to other legal entities (bills payable), we would see that their actual expenditures were close to the approved appropriations.

Table 1. Combined Budget of Ukraine: Amounts Approved by Law and Their Actual Execution, m UAH

	1995	1996	1997	1998

[9] Arrears describe a situation when public agency does not pay for received goods or services, because its budget appropriations were suddenly cut. Usually arrears include non-payment of pensions and wages.

Revenue				
- Approved	22430.8	35900.0	31337.7	32015.5
- Executed	20689.9	30218.7	28112.0	28441.1
- Executed revenue, % of those approved	**92.2%**	**84.2%**	**89.7%**	**88.8%**
Expenditure				
- Approved	26062.5	40667.5	37322.5	35252.2
- Executed	24302.8	34182.8	34312.7	30506.4
- Executed expenditure, % of those approved	**93.2%**	**84.1%**	**91.9%**	**86.5%**
Growth of accounts payable of government spending agencies*, m UAH	1420.2	3485.0	573.0	1504.1
Actual expenditure (including accounts payable)	25723.0	37667.8	34885.7	3201.5
Actual expenditure, % of those approved	**98.7%**	**92.6%**	**93.5%**	**90.8%**
Deficit				
- Approved	3631.7	4767.5	5984.8	3236.7
- Cash deficit	3612.9	3964.1	6200.7	2065.3
- Cash deficit, % of that approved	**99.0%**	**83.1%**	**103.6**	**63.8%**
- Actual deficit (including bills payable)	5033.1	7449.1	6773.7	3569.4
- Actual deficit, % of that approved	**138.6%**	**156.2%**	**113.2%**	**110.3%**

Source: Âîí÷àø, À., Â. Ïèíçåíèê. Â³äêðèòèé áþäæåò Óêðà¿íè (Open Budget 1999 for Ukraine). Êè¿â: ²íñòèòóò ðåôîðì, 1999.

*- Estimation is based on State Treasury data about bills payable of public agencies including pension arrears to military personnel, which are not included into official reports.

The other reason of budget underexecution – decreasing budget revenue – has five sources (Orsmond in Cornelius and Lenain, 1997, p. 25). The first source is the restructuring of the tax system toward that of a market economy. Second, there is a dearth of new taxes that have rates high enough to support the revenue ratio. Third, many firms and individuals are subjects to the tax remissions and the number of remissions is constantly increasing. Fourth, the bases of traditional taxes significantly declined, while growth areas such as exports, agriculture, services, and the informal sector largely escaped taxation. Many firms understated the value of taxable profits or evaded taxes in a different way. Fifth, out-of-date tax administration systems are ill suited to tax an emerging private sector.

In summary, fiscal discipline in Ukraine illustrates theoretical prediction (Campos and Pradhan, p. 427) – aggregate fiscal discipline is impeded by the tragedy of commons. Since numerous claimants view the budget as a common pool, their combined demands exceed socially optimal levels. Introduction of some institutional arrangements can soften this problem. These arrangements include centralization of the budget process, and establishment of ex ante constraints on spending and borrowing, and transparency of the budget process[10]. In the next chapter we will discuss how these institutions influence fiscal discipline in different transition countries and here we will just briefly describe budgetary institutions in Ukraine.

3.3. Budgetary Institutions in Ukraine

Literature defines budgetary institutions as formal and informal rules, according to which budget is drafted, approved, and implemented (Branson, de Macedo, and von Hagen, 1998). Since we are interested in institutions that are important for fiscal discipline, we will focus on centralization of the budget process, establishment of ex ante constraints on spending and borrowing, and transparency of budget procedures.

The process of formulation, approval and execution of the budget in Ukraine is regulated by the following laws: Constitution of Ukraine (Articles 96-98, 119,143); Order of Verkhovna Rada (the parliament) (Section 9.1 "Approval of the State Budget and Control of Its Execution", Articles 9.1.1-9.1.11); Law of Ukraine "On Budget System of Ukraine" (Section IV "Fundamentals of the Budget Process, General Principles of Formulation and Consideration of Budget Projects and Their Approval", clauses 24-31); Law of Ukraine "On Local Government in Ukraine", and other laws concerning formulation, execution and control of local budgets. Also group of laws concerning State Executive Bodies, which take part in the budget process, e.g. Law of Ukraine "On the Ministry of Finance in Ukraine", "On the State Treasury in Ukraine" etc. is relevant (all laws are from Âåðõîâíà Ðàäà Óêðà¿íè, 2001).

Constitution of Ukraine determines who prepares budget projects (Articles 96, 119), the deadline for preparation of the central budget project (Article 96), and who passes the budget (Articles 96, 142, 143). Hence, Constitution only assigns roles to actors and does not contain any provisions concerning fiscal discipline[11].

Ex ante constraint on budget deficit represented by long-term macroeconomic program is absent in Ukraine. According to the Law of Ukraine "On State Budget 2001 for Ukraine" (Âåðõîâíà Ðàäà

[10] For discussion of relevance of these institutions for fiscal discipline see Chapter 4, Section 4.1. "Explanation of Hypotheses".

[11] In the next chapter we will consider what constraints on fiscal discipline exist in Constitutions of other transition countries.

Óêðà¿íè, 2001b, Article 25) before drafting the budget project Ministry of Finance should prepare one-year macroeconomic plan. In addition to being short-term this plan has a nature of fixed forecast and is used only for internal orientation.

Multi-year fiscal forecasts, even if preliminary, give decision makers information on the continuing financial implications of current policies and thus impose constraints on the behavior of the decision makers. That is why Ministry of Finance should be required to develop realistic three-year macroeconomic forecast and medium-term expenditure framework at the national level.

According to the Law of Ukraine "On State Budget 2001 for Ukraine" (Âåðõîâíà Ðàäà Óêðà¿íè, 2001b, Articles 12 and 13) ceiling on government domestic debt is USD 1 317 121.1 thousand, and ceiling on government external debt is USD 10 845 577.9 thousand. This borrowing constraint should stimulate higher fiscal discipline in Ukraine, but taking into account generally low level of law enforcement we cannot assert it.

The other budgetary institution, which is important for the fiscal discipline, is transparency of the budget process. Ukrainian budget process can hardly be called transparent. The major problem of Ukrainian public expenditure management is offsets (German Advisory Group, 2001). Offsets describe a situation when government agrees not to require tax payments in exchange for nonpayment of budget expenditure. Since only monetary operations are reflected in the official reports, offsets lead to nontransparency of the budget. Besides, offsets do not ensure that the state fulfils its functions and illustrates a passive adjustment of the state to disbalance of the economic relations. As table 1.2 shows in 1996-1998 expenditures of the combined budget in monetary terms constituted only 69-71% of those approved. Despite legislative prohibition in 1995 and 1999 offsets again and again take place.

Moreover, according to the Law "On Budget System of Ukraine" (Âåðõîâíà Ðàäà Óêðà¿íè, 2001b, Article 10) local governments are quite autonomous in their borrowing. In 1999 Odessa Oblast Administration issued bonds denominated in foreign currency. This precedent can be quite dangerous because usually local administrations do not have revenues in foreign currency. If various agencies can borrow without control, and the central government then assumes their liabilities, the budget document of the central government will not be a proper indicator of the state of the public finances and, in this sense, it will be less transparent.

Table 2. Offsets in the Expenditure of the Combined Budget, m UAH

	1995	1996	1997
Total expenditure Including:	26062.5	40667.5	37322.5
Offsets	6086.8	8664.5	5362.6
Expenditure in monetary terms	18009.2	28467.3	26610.9
Expenditure in monetary terms, % of those executed	74.1%	83.3%	77.6%
Expenditure in monetary terms, % of those approved	**69.1%**	**70.0%**	**71.3%**

Source: Aîí÷àø, A., A. Ièíçåíèê. A³äêðèòèé áþäæåò Oêðà¿íè (Open Budget 1999 for Ukraine). Êè¿â: ²íñòèòóò ðåôîðì, 1999.

That is why the government should legislate the borrowing ceilings for local governments, as a percentage of regional governments' tax revenue. Besides, local government borrowing in foreign currencies should require the special permission of central authorities, including the Central Bank and the Ministry of Finance (World Bank, 1996, p. xix).

3.4. Enforcement of the Law on the Budget

According to Article 36 of the Law of Ukraine "On the Budget System" Cabinet of Ministers of Ukraine organizes budget execution through the Ministry of Finance, other ministries, and other bodies of the executive power, the Crimean government, and the executive bodies of local governments. Financing of expenditures is carried out by the Ministry of Finance, its financial departments in oblasts, regions, cities, and villages within available resources of the corresponding budgets.

Article 95 of the Constitution of Ukraine says that only the Law "On the State Budget" should determine any state expenditure for society's needs, its size and allocation. A similar clause is present in the Law "On the Budget System": "State budget funds are spent only for purposes and within the limits approved by the law on State budget in Ukraine, and funds of local budgets – for purposes and within the limits approved by corresponding local authority."

In 1998 construction was financed by 244%. In 1997 the excess of actual expenditures over those approved was observed during financing of National Agrarian University, Ministry of Fishery, Vernadsky National Scientific Library, State Innovation Fund, and Ministry of Defense. Besides, infringements were observed during financing of the following sectors: construction of dwelling for military personnel, recycling of scrap-iron and precious metals scrap, liquidation of nuclear weapons, public investments, and short-term loans to local budgets. However, most infringements were committed during financing of executive bodies, namely Ministry of Foreign Affairs, Ministry of Forestry, Ministry of Health, Ministry of Social Security, Ministry of Science and Technology, State Committee on Construction of Cities, State Committee on Water Industry, and others – altogether 23 departments to the amount of UAH 2.9 million.

At the level of the State budget certain programs and certain government spending agencies were overfinanced (mostly in the section "civil service"). At the level of local budgets situation is even more striking – not only certain articles but all sections of the approved budget were overfinanced and again at the expense of social payments and education. For example, in 1998 when the revenue of local budgets was executed by 109.5%, section "civil service" was financed by 126% of appropriations approved by local governments, section "judicial authority" – by 225%, international activities – by 127%, science – by 171%, defense – by 136%, construction – by 165%, agriculture – by 134%, public debt servicing – by 122%.

At the same time, health protection was financed by only 92%, and the offset of wage and social payments debt constituted only 69% of the amount approved by the local budgets (Ãîí÷àø ³ Ïèíçåíèê, 1999).

All these facts are evidence of infringement of Article 95 of Constitution of Ukraine and Article 18 of the Law “On the Budget System”. They show that the budget law is not treated as a law but only as a guideline.

We consider that the above-described budgetary institutions partially explain poor fiscal discipline in Ukraine. In the next section we carry out a nonparametric test aimed at establishing the relationship between the variables of budgetary institutions and fiscal discipline.

C h a p t e r 4

EMPIRICAL PART

4.1. Does Government Expenditure Granger-Cause Budget Deficit?

One line of research links fiscal variables such as expenditures or deficit to macroeconomic variables, for example, growth or unemployment. A well known empirical study is Roubini and Sachs (1989a). They find that average expenditure ratios across the OECD countries respond negatively to output growth and positively to rising unemployment rates; revenue to GDP ratios respond negatively to output growth and negatively to unemployment rates. They conclude that the slowdown in economic growth and the rise in unemployment after the first oil price shock in 1973 were responsible for the subsequent rise in government expenditures relative to GDP.

Roubini and Sachs's (1989a) argument suggests that rising government expenditures explain much of the deterioration of budget deficits in 1970s. Following Von Hagen's (1992) empirical study for the EU countries, we test this relationship for Ukraine. Von Hagen finds that data do not confirm causal relationship between budget deficit and expenditures.

We text the conventional hypothesis, as in Roubini and Sachs (1989a), that large and growing deficits are caused by large and growing levels of government expenditure. If this was true, greater fiscal discipline could be achieved by reducing government spending. However, we expect that in transition countries large and growing deficits are not the consequence only of large expenditure, but there are other determinants of poor fiscal discipline in Ukraine. That is why we expect to find no correlation between government expenditure and budget deficit.

We test a conventional hypothesis that a rise in expenditures explains growing budget deficit[12]. For this purpose we use the Granger-causality test. This test says that variable "expenditure" Granger-

[12] In fact, the null hypothesis is that rise in expenditure does not Granger-cause growing budget deficits.

cause variable "deficit" if changes in current value of deficit are preceded by changes in values of government expenditure.

To test the hypothesis, we use time-series data from Ukrainian Economic Policy and Legal Advice Center (UEPLAC) and Ministry of Finance. The data are quarterly and covers the period from 1992:4 to 2000:3. All variables are expressed as percentage of GDP in order to avoid the problem of non-stationarity.

To implement this test we complete the following steps. First, we regress current budget deficit (as % of GDP) on its lagged terms but do not include the lagged variables of government expenditure. From this regression we obtain the restricted residual sum of squares.

$\Delta d_t = \alpha_0 + \alpha_1 \Delta d_{t-1} + \varepsilon_t$ (1)

where

d_t – ratio of budget deficit to GDP.

One lag was included in regression based on the correlogram of the corresponding time series. The variable in the first differences form, because it is integrated of order one (I(1)).

The results are given in Table 3.

Table 3. Results of Restricted Regression for Granger-Causality Test

Dependent Variable: D(BAL)
Method: Least Squares
Sample(adjusted): 1993:2 2000:3
Included observations: 30 after adjusting endpoints
D(BAL)=C(1)+C(2)*D(BAL(-1))

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.436050	0.715231	-0.609663	0.5470
C(2)	-0.498912	0.130065	-3.835867	0.0007

R-squared	0.344475
Adjusted R-squared	0.321064
S.E. of regression	3.896627
Sum squared resid	**425.1436**
Log likelihood	-82.33660

From these results we take the restricted residual sum of squares

$RSS_R = 425.1436$

Now we run the same regression but include the lagged government expenditure (as % of GDP) terms. The regression is as follows:

Äd$_t$ = â$_0$ + â$_1$Äd$_{t-1}$ + ã$_1$ g$_{t-1}$ + å$_t$

where

d_t – ratio of budget deficit to GDP;

g_t – ratio of government expenditure to GDP. This variable enters the regression in the first difference form because it is integrated of order 1, i.e. $g_{t-1} = g_{t-1} - g_{t-2}$

The results are reported in the table 4.

Table 4. Results of Unrestricted Regression for Granger-Causality Test

Dependent Variable: D(BAL)
Method: Least Squares
Sample(adjusted): 1993:2 2000:3
Included observations: 30 after adjusting endpoints
D(BAL)=C(1)+C(2)*D(BAL(-1))+C(3)*EXP1

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.544368	0.675301	-0.806112	0.4272
C(2)	-0.880445	0.216184	-4.072656	0.0004
C(3)	0.234529	0.109513	2.141566	0.0414

R-squared	0.439657	Mean dependent var	-0.153333
Adjusted R-squared	0.398150	S.D. dependent var	4.729054
S.E. of regression	3.668752	Akaike info criterion	5.532220
Sum squared resid	**363.4131**	Schwarz criterion	5.672340
Log likelihood	-79.98330	F-statistic	10.59238
Durbin-Watson stat	1.985964	Prob(F-statistic)	0.000402

From these results we take the unrestricted residual sum of squares:

$RSS_{UR} = 363.4131$.

Finally, to test H$_0$: ã$_1$=0, that is, that the lagged values of government expenditure do not explain present values of budget deficit, we apply F test:

$$F = \frac{(RSS_R - RSS_{UR})/m}{RSS_{UR}/(n-k)}$$

Here

m – number of lagged terms of government expenditure (here 1);

k – number of parameters estimated in the unrestricted regression (here 3);

n – number of observations (here 30).

The decision rule is as follows: if $F_{obtained} > F_{critical}$ at the chosen level of significance we reject H_0, which means that the variable government expenditure Granger-cause the variable budget deficit.

The results of calculations are:

$F_{obtained}=2.887$

$F_{critical}=8.45$ at á=1%

Since $F_{obtained} < F_{critical}$, we cannot reject H_0. Thus we may conclude that large government expenditures do not explain a large and growing budget deficit, and therefore it would be incorrect to target only government expenditure to guarantee high level of fiscal discipline. The same results were obtained by Von Hagen (1992) for the European Union countries.

We should note that an important condition for the reliability of F-test is the absence of autocorrelation. We tested the regression for presence of autocorrelation using the Breush-Godfrey test (Durbin-Watson test is inappropriate here because of presence of lagged terms in the regression). This test indicated no presence of autocorrelation. Besides, the coefficient of autocorrelation is -0.129589, i.e. it is close to zero.

4.2. Testing Three Main Hypotheses

4.2.1. EXPLANATION OF HYPOTHESES

The model used here was proposed by Von Hagen (1992). It describes the budgeting process in three stages. In the first stage, government prepares a budget draft that should be presented before the parliament. The government includes spending ministers, a finance minister presiding over financial resources, and a prime minister acting as the chairman. Conflicts of interest between the ministers must be resolved in the drafting process. In the second stage, the budget is submitted to parliament, which can amend the proposal and either pass or reject it. This is primarily a bargaining process between government, which now represents a unified position expressed in its proposal, and the parties represented in parliament, which either support or oppose the government. In the third stage, the budget law is executed and further modifications of the law may be possible.

This model predicts that the nature of budget procedures strongly influences fiscal outcomes. More specifically, procedures, which include constraints on the deficit and are more "hierarchical" and transparent, lead to lower primary deficits. Hierarchical procedures are those that, for instance, limit the role of the legislature in expanding the size of the budget and its balance, and attribute a strong role to a single individual (typically the Treasury Minister) in the budget negotiations within the government, limiting the prerogatives of the spending ministers. In contrast, collegial procedures provide a greater balance of power between all the agents involved in the budgetary process.

The literature of budget institutions has suggested several tentative hypotheses concerning which arrangements should be more crucial to fiscal discipline. We focus on three main insights:

1. **Structural hypothesis**: Budgeting procedures lead to greater fiscal discipline if they give a strong prerogative to the prime minister or the finance minister, if they limit parliamentary amendments, and facilitate strict execution of the budget law, or in other words if top bottom procedures dominate.

   Top bottom procedures are those that attribute strong prerogatives to the government vis-à-vis spending ministries or the legislature in the approval stage of the budget. Typically the type of amendment rules allowed in the legislative discussion are criti cal in this respect.

2. **Ex ante constraint hypothesis**: Laws which establish ex ante constrains on deficits are crucial for fiscal discipline.

   Examples of these "laws" are balanced budget rules, requirements that the budget be consistent with a macroeconomic program approved ex ante, or legislative ceilings on borrowing imposed ex ante. The more budgetary decisions are tied to a multi-period fiscal program, the greater the degree of fiscal stability achieved.

3. **Transparency hypothesis**: Transparent procedures should lead to more fiscal discipline.

   Even the most severe fiscal laws can be evaded if non-transparent procedures make budget documents unclear and unrelated to the real fiscal situation. Politicians often do not have incentives to produce the most transparent budget. By strategically manipulating information they can appear as fiscally restrained even when they are fiscally undisciplined for opportunistic reasons.

4.2.2. Data and Methodology of Collecting It

To test these hypotheses, we need numerical representation of institutional arrangements. Such representation can be derived by constructing several indices. In order to obtain the indices we compiled an assessment sheet (see Appendix) based on von Hagen's (1992) framework. We used this assessment sheet to collect information about budgetary institutions in transition countries (former Soviet republics and four countries of Central Europe; for exact list of the countries see Appendix). The assessment sheet consists of ten questions with several possible answers. We filled it in by using the constitutions, the legal codes, and the World Bank or IMF public expenditure management reviews. Hence, we collect information only on formal budgetary institutions. In order to gather information on informal institutions (some conventional practices of budget preparation and execution) we need an additional source – the survey covering country's experts in public finance. Unfortunately, at this point it is hard to conduct such a survey because of organizational constraints (public officials are reluctant to provide information to private persons) and time limit.

We constructed our indices based upon 10[13] characteristics of the budget procedures. In each question countries were assigned a score between 0 and 10[14] according to the provisions of legal codes. A perfect was assigned to 10 -- the case of the answer that we considered the most "hierarchical", and 0 to the one most "collegial" [15]. For the middle range answers we assigned scores according to the number of possible answers. For example, if a question allowed three answers, the possible scores were 0, 5 and 10. If there were four possible answers, the scores were 0, 3.33, 6.66 and 10.

We now briefly illustrate each question. The first three questions relate to constraints on the budget deficit. Question 1 asks about the existence of constitutional constraints on the fiscal deficit, such as balanced budget rule or requirements for "proper financing". We will explain the method of construction of index 1 using example of Georgia (see Appendix, Table A1, row for Georgia). The Constitution of Georgia (Parliament of Georgia, 2001) contains the following provisions concerning the budget:

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13 Number of characteristics, which is the number of questions in the assessment sheet was chosen so as to capture as many features of the budget process, which are relevant for the hypotheses testing, as possible.

14 We chose a score of 10 following von Hagen's methodology.

15 "Hierarchical" institutions are institutions that imply ex ante constraints on the size of the deficit, give more power to Ministry of Finance and are transparent.. "Collegial" institutions are procedures, which imply the opposite characteristics.

Article 73

The President:
e. submits the draft of the state budget to the Parliament after the agreement with the Parliamentary committees over the main principles and directions;

Article 92

1. The Parliament of Georgia by the majority of the total number of deputies annually passes the state budget law, which is signed by the President.
2. The procedures for making and passing the budget are determined by law.

Article 93

1. Only the President has the right to submit the draft budget to Parliament.
2. The President is obliged to submit the draft budget to the Parliament not later than three months before the end of the current budget year. Together with the draft budget the President submits a report on the implementation of the budget for the current year. The President submits a report on the implementation of the state budget no later than three months following the end of the budget year.
3. Without the consent of the President it is impossible to introduce changes to the draft budget. The President can require from Parliament additional state expenditure only if he indicates how the additional expenditure will be covered.
4. If Parliament cannot pass the budget by the beginning of the new budget year, expenditures needed to cover the state's liabilities are made in accordance with the budget of the prior fiscal year.

Article 97

3. Twice a year while submitting the preliminary and final report on the fulfillment of the budget, the Chamber of Control submits a report to Parliament on government expenditures. Once a year it submits a report of its own activities.

We can see that neither of these articles stipulates any restrictions on budget deficit. It means that the value of index 1 for Georgia is zero (see Appendix, Table A1, row Georgia), i.e. this type of budgetary institution in Georgia is “collegial”.

Question 2 inquires about the importance of a previously approved macroeconomic program as a constraint on the executive branch during the drafting of the budget. In order to determine the level of importance of such program we should know whether this program is used only for internal orientation by Ministry of Finance or it reflects stronger political commitment (as, for instance, it is the case in the Netherlands, where multi-annual budget plan is a part of the coalition agreement of the government (von Hagen, 1992, p. 39)). We will explain how we assign value to index 2 using example of Latvia. According to the Law of Latvia On Budget and Financial Management (The Saeima, 2001, Chapter 1):

Middle term State budget planning – a process in which accessible resources are specified for five years and the use of such resources is ensured in conformity with the priorities specified by government.

Section 17. Instructions regarding the Drawing up of Budgetary Requests
(1) The Minister for Finance shall issue instructions regarding the drawing up of budgetary requests, and shall inform ministries and other central State institutions regarding the basic principles for middle term expenditure planning and the economic situation prognosis for the middle term.

We may conclude that macroeconomic program in Latvia is relatively important because it is mainly indicative; there is no strong political commitment to it. Hence, the value of index 2 for Latvia is 5 (see Table A2, row for Latvia). Other countries of Former Soviet Union either do not have any macroeconomic program or this program is in fact unimportant (This is the case in Ukraine. Although Law on the Budget System in Ukraine (Verkhovna Rada of Ukraine, 2001, Article 26) stipulates that Ministry of Finance should elaborate Plan of Main Macroeconomic Indicators, this Plan is used only for internal orientation and, as a rule, is built on fixed forecast. So index 2 equals 0 for Ukraine.)

Question 3 asks about the degree of borrowing autonomy by the government, and the extent to which it is subject to borrowing constraints. Following von Hagen's practice, we assigned the highest scores to countries where parliament sets a ceiling on what the government may borrow. The lowest scores were given to countries in which the government can borrow without constraints, whenever revenues fall short of expenditures.

Let's take Russia as an illustration. In the Law "On Budget 2000 for the Russian Federation" (Ôåäåðàëüíûé Ñîâåò Ðîññèéñêîé Ôåäåðàöèè, 2001, Appendix) it is set the upper limit of both domestic and external borrowing. Besides, Article 25 of the same law says that the parliament approves each borrowing operation. Institution setting parliament ceiling on government borrowing is assigned score of 10 – it is considered that this arrangement is the most binding constraint (assuming that the law is followed). However, the clause saying that the Parliament approves each operation gives more discretion to the government in its borrowing. It is assigned the value of 3.33. We calculate index 2 for Russia as the average of 10 and 3.33 and obtain 6.66 (see Table A3, row for Russia).

Question 4 relates to the degree to which institutions are hierarchical or collegial during the budget preparation stage. It addresses the issue of the relative standing of Minister of Finance vis-a-vis the spending ministers in the budget process. In order to determine the relative power we look how much power has Minister of Finance in setting agenda (i.e. initial budget guidelines) for budget negotiations. If Ministry of Finance just collects bids from spending ministries, then its power is very low in budget negotiations. But if Ministry of Finance proposes budget norms to be voted on by the cabinet or just determines budget parameters to be observed by spending ministries, then its power is relatively high.

In many former Soviet Republics old tradition of the passive aggregation of norm-based expenditure requests dominates (World Bank, 1997, p. xxix). Let's look at the example of Kazakhstan (World Bank, 1997, p. 55).

In Kazakhstan the preparation of the budget draft accords with the following scheme. Firstly, the staff of the Cabinet of Ministers (Department of Finance, Labour and Monetary Circulation) takes the lead in formulating the Budget Directive. The Department formulates a first outline of the budget based on: (i) a review of the execution of the ongoing budget, changes in taxation and administrative resources, evolution of the external debt; and (ii) a number of policy assumptions regarding the evolution of the minimum wage and of some key prices. This first outline is used to determine the base parameters of the budget, particularly the target level of the deficit. These parameters are submitted for the approval of the Prime Minister and the Cabinet. They issue the Budget Directive to the Ministers and territorial administrations. (By the way, from this piece of information we see that there is no long-term macroeconomic program in Kazakhstan. Hence, the value of index 2 is 0 (see Table A2, row for Kazakhstan)).

Following this overall directive, the Ministry of Finance issues detailed instructions to all budget entities regarding the calculation of their budget requests, particularly as to the use of expenditure norms and the estimation of fiscal revenues. The formulation of the draft budget starts. Each budget entity calculates its own *smeta*[16] and centralizes it with the finance department of its level of

[16] *Smeta* is a kind of expenditure allocation document.

subordination. The latter checks that the *smeta* have been prepared according to the set methodology. In parallel, the Ministry prepares its own estimate of expenditure requirements administration by administration and of prospective fiscal resources. After various rounds of centralization, budget requests are verified and consolidated by the Department of the Budget of the Ministry of Finance. If a gap arises, as has been the case in recent years, the Department cuts back the requests and brings them back within the expected resource envelope, according to an order of priorities among types of expenditure (four categories are untouchable, including wages). The Ministry of Finance submits the draft state budget to the final arbitration of the Deputy Prime Minister in charge, who submits the final draft to the Prime Minister and the Cabinet, which finalizes it.

Hence, we can see that in fact Ministry of Finance proposes limit of the budget deficit to be voted on by cabinet, collects bids from budget entities subject to preagreed guidelines, and if these bids are not within the limits of predetermined budget deficit, they are cut. It means that Minister of Finance has somewhat greater authority than spending ministries, which have power in voting on budget deficit initially. Thus, index 4 for Kazakhstan equals 5 (see Table A4, row for Kazakhstan).

Questions 5 and 6 reflect the relative power of the government and the legislature during the discussions of the budget. In question 5, we consider constraints on the legislature regarding amendments to the government's proposed budget. More stringent constraints on the legislature (for example, if they cannot modify the size of the budget or its deficit) result in higher values for the index. Question 6 asks what happens if the budget is rejected or not passed by the legislature within the constitutionally established time frame. The weaker the relative position of the government in this issue, the greater the incentives to propose a larger budget, in order to ensure approval.

Let's look at the Ukrainian example here. The Law "On Budget System of Ukraine" does not contain any restrictions on parliamentary amendments to the budget project. So, index 5 for Ukraine equals 0. Article 28 of the same law says: "If Verkhovna Rada (Parliament) does not pass the Budget Law in time previous year Budget Law is enacted." Hence, index 6 for Ukraine should be 8. However, the same article stipulates that some expenditure may not accord with ones of the previous year, which gives some discretion to the parliament. That is why we assign only 6 (following the recommendation of von Hagen, 1992).

If the budget can be easily revised during the execution stage, the entire budgetary process becomes less meaningful. In question 7 we ask whether the budget can be modified after approval by the legislature, and on whose initiative. We assign the highest score to the case where it is not possible to modify it. Consistent with questions 5 and 6, we rate as more hierarchical those systems where the initiative to modify the budget falls on the government than those where it may be modified at parliament's initiative. However, provided the government has the initiative, we assign a larger score when legislature's approval is required.

Let's look at the example of Kyrgyz Republic legislation. According to the Law "On Budget Law in Kyrgyz Republic" (Íîðìàòèâíûå äîêóìåíòû Äîìà Ïðàâèòåëüñòâà Êûðãûçñêîé Ðåñïóáëèêè, 2001a, Article 15) the government may decide to modify Budget Law only if increase in budget expenditure is met by increase budget revenue (corresponds to index value of 2.5). If unpredicted circumstances require increasing budget deficit, new budget law should be passed under the same regulations as the ordinary law (corresponds to index value of 7.5). It means that index 7 for Kyrgyz Republic equals the average of 2.5 and 7.5, which is 5.

Question 8 asks whether the government can cut spending after the budget is passed. Here there are conflicting arguments in favour of more government discretion in cutting the budget. Intuitively, it would seem that the possibility of cutting the budget would result in smaller deficits. However, it is also possible that the government will not have incentives to submit budget with low expenditure if it can cut it later at their discretion. And later on, it may be difficult to cut it even if this was intended from the beginning. In addition, the executed budget might not reflect the spending priorities implicit in the budget passed by the legislature (which is the case, for example, in Ukraine). In this case, the budgetary process becomes less transparent and less meaningful as a way to allocate scarce resources among competing spending programs. For these reasons, we assign the highest score to those countries where the government can only cut the budget when revenues are lower than projected, rather than those who can cut without restrictions. A score of 0 was assigned to those countries in which the government cannot cut spending unilaterally under any circumstance.

We illustrate this question taking as an example Belarussian legislature. According to the Law "On Budget System and Extrabudgetary Funds of the Republic of Belarus" (Íàöèîíàëüíèé öåíòð ïðàâîâîé èíôîðìàöèè Ðåñïóáëèêè Áåëàðóñü (National Center of Law Information of the Republic of Belarus), 2001b, Article 17) if in the process of budget execution deficit increases by more than 10% of the approved level, the parliament can cut expenditure or block some expenditure. It means that the value of index 8 for Belarus is 10.

The last two questions attempt to capture aspects related to transparency. In particular, they focus upon whether the control of the central government over its budget can be undermined by the behaviour of other public agencies, through their borrowing. Question 9 asks about the conditions for the central government to assume debt originally contracted by other agencies, and the frequency of this.

We will illustrate assigning value to index 9 using example of Lithuania. Although legal codes contain information on the conditions for the central government to assume debt of other agencies, they do not contain information on the frequency of this. That is why we should use other than legislative sources to answer this question. In the case of countries of Eastern Europe and Baltics we use Public Management Profiles (Support for Improvement in Governance and Management in Central and Eastern European Countries (SIGMA), 2001). Lithuanian government "often provides indirect help in the form of loan guarantees (e.g. to the social security fund) or short-term loans (such as to local governments)" (SIGMA, 2001). Hence, we fill in the row for Lithuania as in Table 5.

Table 5. Does the central government typically assume the debt made by other public agencies? Under what circumstances?

	Frequently	Occasionally	Exceptionally	Only on guaranteed debt	Including non-guaranteed debt	Score
Former Soviet Republics						
⋮						
Lithuania	X			X		3.33

Question 10 inquires about the borrowing autonomy of the state, local governments, and public enterprises. The motivation for these questions is that, if various agencies can borrow without control and the central government then assumes their liabilities, the budget document of the central government is not a proper indicator of the state of the public finances and, in this sense, it is less transparent. If the budget included the amounts of debt of public agencies later assumed by the government as subsidies to them it would be more transparent.

Here we will use the example of Czech Republic. Public agencies (both local governments and public enterprises) are required to seek central government approval before they can spend or borrow funds and are subject to cash limits to control the flow of funds (Branson, de Macedo, and von Hagen, 1998, p. 11). It means that the value of index is 7.5 for local governments and 5 for public enterprises, giving the average of 6.25.

The index is constructed as the unweighted average of all scores[17]. For each country we construct three sets[18] of indices corresponding to our three main hypotheses:

1. Structural indices

These indices are the combination of the sum of scores assigned to questions 1, 2, 3, 7, and 8.

SI1=v1+v2+v3+v7+v8

SI2=v1+v2+v3

2. Ex ante constraint indices

These indices are the combination of the sum of scores assigned to questions 4, 5, and 6.

CI1=v4+v5+v6

CI2=v4

3. Transparency indices

These indices are the combination of the sum of scores assigned to questions 9 and 10.

TI1=v9+v10

TI2=v9

The procedure of constructing an index as a sum of components implies two assumptions. First, we give equal weight to all the answers. Second, we make all the components of the index perfect substitutes. In other words, this implies that having very hierarchical procedures in some aspects of the budgetary process and very collegial procedures in others is the same, in terms of the overall index, as having "intermediate" procedures in all aspects of the budgetary process.

In order to check the robustness of these assumptions we will use the technique proposed by von Hagen (1992). We compute the subindices by leaving out the components from the main index, i.e. from SI1, CI1, and TI1. Specifically, index SI2 drops the characteristics 'flexibility of budget execution'

[17] This avoids an arbitrary choice of weights regarding the issues covered by index. Weighted indices can be easily constructed from the raw scores.

[18] There are two, not one index for each hypothesis in order to check the robustness of index construction, which we explain later.

represented by the questions 7 and 8. If we find that SI1 is strongly related to fiscal discipline (represented by the ratio of budget deficit to GDP) while SI2 is not it would mean that 'flexibility of budget execution' aspect is important relative to other aspects. If SI1 and SI2 relate equally to fiscal discipline, the 'flexibility of budget execution' aspect would be less important than the remaining characteristics. The same principle is applied to testing the substitutability between certain characteristics contained in CI1 and TI1.

The other method of checking for robustness is construction of different indices with different assumption about substitutability between components, by using the following formula:

$$I_j = \sum_{i=1}^{10} c_i^{\ j},$$

where

c_i -- the value of the component i of the index.

When j=1, we have our main index, where all the components are simply added to each other. For 0 < j <1 countries that show intermediate values in all categories will rank higher than those whose institutions are very hierarchical in some respects, and very collegial in others. The opposite will be true for the case of j > 1.[19]

Now we check our indices for robustness. Lets take 0.4 and 2 as alternative values of j. Table 6 reports the ranking of countries corresponding to the three different values of j.

Table 6. Test for Index Robustness

Country	j=1		j=0.4		j=2	
	Total Index	Ranking	Total Index	Ranking	Total Index	Ranking
Slovakia	75.82	1	22.33	1	607.46	2
Estonia	72.16	2	20.53	4	614.61	1
Hungary	69.66	3	20.25	5	570.86	3
Latvia	68.32	4	21.20	2	526.21	4
Poland	61.65	5	20.55	3	399.80	6
Czech Republic	59.40	6	20.15	6	384.41	7
Lithuania	*52.99*	*7*	*16.66*	*8*	*406.94*	*5*

[19] A simple example of two countries and two components will illustrate this point: Consider that for country A, c_{1A}=10 and c_{2A}=0; and for country B, c_{1B}=5 and c_{2B}=5. Then for j=1, I_A=I_B=10. But if j=0.5, then I_A=3.16 while I_B=4.47. For j=2, I_A=100 while I_B=50.

Belarus	50.99	8	17.52	7	353.94	8
Russia	45.16	9	14.45	9	339.43	9
Armenia	41.65	10	13.99	10	287.30	10
Ukraine	40.57	11	13.87	11	270.02	11
Kyrgyz Republic	38.91	12	13.68	12	247.24	12
Kazakhstan	32.82	13	12.55	13	201.78	13
Azerbaijan	24.32	14	10.34	14	111.53	14
Georgia	14.99	15	5.66	15	80.44	15
			Corr_coef	0.968	Corr_coef	0.986

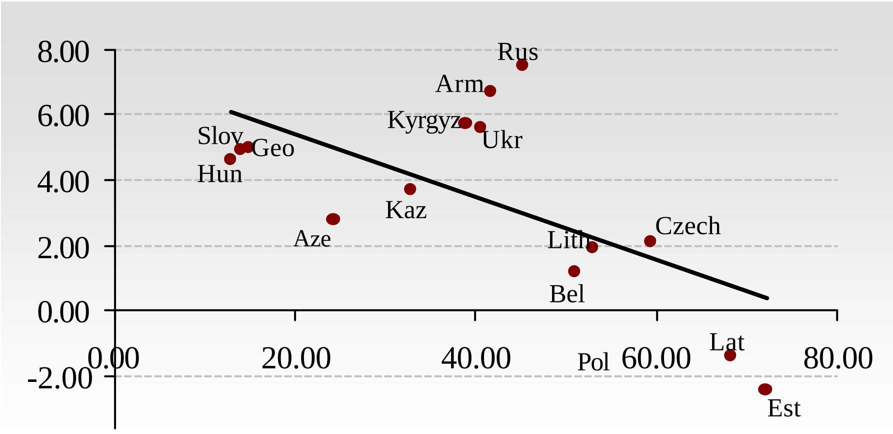
Coefficient of correlation between the first two indices is 0.968. That between the first and the third indices is 0.986. In addition if we divide all countries into three groups: top five, middle five, and the last five, neither country except Lithuania[20] moves between groups. Hence, we may conclude that the index is quite robust to the changes in assumption about perfect substitutability between its components.

In addition the index is robust to any changes in the scale, i.e. to change in the maximum value of the index from 10 to any other number. The reason is that country is ranked according to the relative value of its index, not according to the absolute one. If we increase or decrease the value of all indices by some amount, countries' ranking would not change.

From the figure 5 we can see that there is negative relationship between index and budget deficit (as percentage of GDP). In the next section we check whether a higher value of budgetary index is correlated with a higher level of fiscal discipline (or lower level of budget deficit as percentage of GDP) using a nonparametric test.

Figure 5. Budget Deficit (% of GDP) and Index of Budgetary Institutions

[20] When j=2 Lithuania's rank is 5, which means that it becomes the last in the top five group. When j=1 or j=0.4 Lithuania is in the middle index group.


8.00
6.00
4.00
2.00
0.00
-2.00
0.00
20.00
40.00
60.00
80.00
Rus
Arm
Kyrgyz
Ukr
Slov
Geo
Hun
Kaz
Aze
Lith
Czech
Bel
Pol
Lat
Est

4.2.3. EMPIRICAL TEST

We test the three main hypotheses using nonparametric test, namely the Spearman rank test. We do not use regression analysis for two reasons. First, we have very small sample and, in such case, nonparametric tests have more power than regressions. Second, so far, the literature does not appear to have provided any regression, which could be considered as a successful specification.

Among other nonparametric tests the Spearman test has the advantage in that it does not require the assumption of normal distribution of observations and thus is not sensitive to extreme values. Because of these advantages Spearman test is often used in econometrics for testing for heteroscedasticity.

In order to obtain Spearman rank correlation coefficient we rank budgetary institutions and budget deficits (as a percentage of GDP, taken with positive sign) in ascending order. The rank is higher, the higher is the value of index and the lower is the absolute value of budget deficit. The Spearman rank correlation coefficient is then calculated as the sample correlation between the ranks of indices and budget deficits using the following formula:

$$r = \frac{\sum_1^n x_i y_i - n\bar{x}\bar{y}}{\sqrt{(\sum_1^n x_i^2 - n\bar{x}^2)(\sum_1^n y_i^2 - n\bar{y}^2)}}$$

Where x_i -- rank of budgetary institution for country i;

y_i -- rank of budget deficit (as a % of GDP, taken with positive sign) for country i;

$\bar{x}$ -- average value of ranks of budgetary institutions for all countries;

$\bar{y}$ -- average value of ranks of budget deficits for all countries;

n – number of observations.

In Table 7 we report Spearman rank correlation coefficients between our indices and budget deficit ratios.

Table 7. Rank Correlation Coefficients

Structural Hypothesis	Spearman correlation coefficients	Ex ante constraint hypothesis	Spearman correlation coefficients	Transparency hypothesis	Spearman correlation coefficients
SI1	-0.21*	CI1	-0.15	TI1	-0.43*
SI2	-0.38*	CI2	0.32	TI2	-0.31**
* stands for significance at 10% level; ** -- at 5% level					

The results of the test show that there is negative rank correlation between the structural indices and budget deficit ratios. It means that the higher is the structural index the lower is the budget deficit.

However, the results do not support the ex ante constraint hypothesis. The correlation coefficient is not significant. We can explain this result by the fact that legal codes, which were the basis for our indices, do not always reflect the real practices. It means that in many former Soviet republics all the constraints imposed by law are quite soft in reality; that is why they do not observe a significant correlation coefficient.

The third correlation coefficient concerning the transparency hypothesis also has the expected positive sign and is significant. It means that the more transparent is the budget draft approved by the parliament, the higher is the level of fiscal discipline or the lower is the ratio of budget deficit.

Chapter 5

CONCLUSIONS

Achievement of macroeconomic stability in transition countries significantly depends on the solution of the problem of large, often growing budget deficits. These complex problems are mostly the result of incentives, which are created by institutions in the public sector. Therefore change of budgetary institutions is a priority task on the governments' reform agenda.

This paper develops data on the budgetary institutions governing the budget process in the former Soviet republics, Poland, Czech Republic, Hungary, and Slovakia. This data is constructed in a manner that makes it possible to compare budgetary institutions over time and across countries. In this paper we concentrate at cross-sectional variance. Cross-country comparison indicates that former Soviet republics have substantially lower level of budgetary institutions in comparison with the more advanced transition countries.

Empirical results also show that the former Soviet republics should, first of all, centralize their budget process. The data supports the "structural" hypothesis that budget procedures lead to greater fiscal discipline if they give a strong prerogative to the prime minister or the finance minister. Also transparent procedures lead to higher level of fiscal discipline, which means that non-transparency of the present budget process in many former Soviet republics hinder positive changes in the public sector.

Finally, empirical results did not show significant support to the hypothesis that laws which establish ex ante constrains on deficits are crucial for fiscal discipline. There are two possible explanations of this result. Legal codes, which were the basis for our indices, do not always reflect the real practice. It means that in many former Soviet republics all the constraints imposed by law are quite soft in reality; and that is why we do not observe a significant correlation between the indices and the level of fiscal discipline. The same result was obtained by von Hagen (1992) for the EU countries, which means that this result may reflect the true picture – ex ante constraints on budget deficit do not significantly affect fiscal discipline.

There are two possible extensions of this study. We covered only formal institutions in this paper, and informal institutions are equally important for fiscal discipline. So the task of future studies is to construct indices describing informal budgetary institutions in transition countries. In addition, more rigorous analysis can be done using time series data on budgetary institutions. Hence, an interested researcher may continue this study and collect the data reflecting evolution of the budgetary institutions over time.

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APPENDIX

Questionnaire

1. What constitutional constraints are there on fiscal deficit?

- No restrictions
- Constitution stipulates a 'proper' financing of fiscal deficit
- Zero budget deficit

2. Is there a legal requirement for the approval of a macro program to proceed the presentation of the budget to the parliament? How important is it?

- Very important
- Relatively important
- Not important or not required

3. What kind of borrowing constraints are there on the government?

- No constraints: government borrows if shortfall
- Parliament approves each operation
- Ceiling set by the government
- Ceiling set by the parliament
- The parliament approves borrowing together with budget

4. Does the minister of finance have more authority than the spending ministers concerning the budget?

- Considerably greater than spending ministers (formally and in practice)
- Somewhat greater than spending ministers (formally but not in practice)
- Equal or almost equal to other ministers

5. What are the restrictions on the content of amendments that the parliament can do? The parliament can only propose amendments that …

- That do not increase the deficit
- That do not increase spending
- That do not increase either the deficit or spending
- With government's approval
- No restrictions

6. What happens if parliament rejects the budget?

- The previous year's budget is enacted
- The budget proposed by the government is enacted
- The government submits a new budget
- No funds may be spent
- The government is retired

7. Can the budget be modified after the parliament's approval?

- Yes, only if government initiates the modification and parliament approves it
- Yes, only if government initiates the modification
- Yes, if the parliament initiates the approval
- No, modifications are not allowed during the fiscal year

8. Does government have the legal right to cut spending after approval of the budget?

- Yes, when government d ecides so at any time
- When revenues are lower than projected
- No

9. Does the government typically acknowledge the debt made by other public agencies?

- Occasionally
- Frequently
- Exceptionally
- Only guaranteed debt
- Including non-guaranteed debt

10. Can these agencies borrow autonomously?

Local governments

- Yes, with local legislative approval
- Yes, with central government approval
- Yes, with parliament's approval
- Yes, without rest rictions
- No

Public enterprises

- Yes, with central government's approval
- Yes, with parliament's approval
- Yes, without restrictions
- No

Index Construction

Table A1

Question 1: What constitutional constraints are there on the fiscal deficit?

	No restrictions	Constitution stipulates 'proper' financing of fiscal deficit	Zero budget deficit	Score
Former Soviet Republics				
Armenia	X[21]			0
Azerbaijan	X[22]			0
Belarus	X[23]			0
Estonia		X[24]		5
Georgia	X[25]			0
Kazakhstan	X[26]			0
Kyrgyz Republic	X[27]			
Latvia		X[28]		5
Lithuania	X[29]			0
Russia	X[30]			0
Ukraine	X[31]			0
Central Europe[32]				

[21] Constitution of Armenia (National Assembly of Armenia, 2001) contains some provisions concerning budget in the following articles: 76, 77, 89, 90, and 106. Neither of these articles stipulates any restrictions on budget deficit.

[22] Constitution of the Azerbaijan Republic (President of the Azerbaijan Republic, 2001) contains some provisions concerning budget in the following articles: 95, 109, 119, 139, 140, 142, and 144. Neither of these articles stipulates any restrictions on budget deficit.

[23] Constitution of the Republic of Belarus (Íàöèîíàëüíûé öåíòð ïðàâîâîé èíôîðìàöèè Ðåñïóáëèêè Áåëàðóñü, 2001) contains some provisions concerning budget in the following articles: 97, 101, 107, 121, 129, 132, 133, 134, and 135. Neither of these articles stipulates any restrictions on budget deficit.

[24] According to Article 49 of the Constitution of Estonia (The Parliament of Estonia, 2001) "If the Riigikogu (parliament) increases budget expenditures, then it should indicate the sources to cover these expenditures."

[25] Constitution of Georgia (Parliament of Georgia, 2001) contains some provisions concerning budget in the following articles: 73, 92, 93, 94, 95, and 97. Neither of these articles stipulates any restrictions on budget deficit.

[26] The Constitution of the Republic of Kazakhstan (President of the Republic of Kazakhstan, 2001) contains some provisions concerning budget in the following articles: 44, 53, 54, 57, 61, 66, 80, 86, 87, and 88. Neither of these articles stipulates any restrictions on budget deficit.

[27] Constitution of Kyrgyz Republic (Íîðìàòèâíûå äîêóìåíòû Äîìà ïðàâèòåëüñòâà, 2001) contains some provisions concerning budget in the following articles: 11, 46, 65, 73, and 95. Neither of these articles stipulat es any restrictions on budget deficit.

[28] According to Article 66 of the Constitution of Latvia (The Chancery of the President, 2001) "If the Saeima (parliament) makes a decision that involves expenditures not included in the Budget, then this decision must also allocate funds to cover such expenditures."

[29] Constitution of Lithuania (Parliament of Lithuania, 2001) contains some provisions concerning budget in the following articles: 131, 132, 145, and 148. Neither of these articles stipulates any restrictions on budget deficit.

[30] Constitution of the Russian Federation (State Bodies of the Russian Federation, 2001) contains some provisions concerning budget in the following articles: 75, 101, 104, 114, and 132. Neither of these articles stipulates any restrictions on budget deficit.

[31] Constitution of Ukraine (Âåðõîâíà Ðàäà Óêðà¿íè, 2001) contains some provisions concerning budget in the following articles: 74, 85, 92, 95, 96, 97, 116, 119, 138, 142, and 143. Neither of these articles stipulates any restrictions on budget deficit.

[32] Here and further (if not the other is indicated) see Branson, de Macedo, and von Hagen (1998).

Czech Republic		X		5
Hungary			X	10
Slovakia		X		5
Poland		X		5

Table A2

Question 2: Is there a legal requirement for the approval of a macro program to precede the presentation of the budget to the parliament? How important is this requirement in practice?

	Very important	Relatively important	Not important or not required	Score
Former Soviet Republics				
Armenia			X[33]	0
Azerbaijan			X[34]	0
Belarus		X[35]		5
Estonia			X[36]	0
Georgia			X[37]	0
Kazakhstan			X[38]	0
Kyrgyz Republic			X[39]	0
Latvia		X[40]		5
Lithuania		X[41]		5
Russia			X[42]	0
Ukraine			X[43]	0
Central Europe[44]				
Czech Republic		X		5
Hungary		X		5

33 Here and further see (if not the other is indicated) Law "On Budget System of Armenia" (Ïàðëàìåíò Ðåñïóáëèêè Àðìåíèÿ, 2001).

34 Here and further see (if not the other is indicated) Law "On Budget Arrangements in the Republic of Azerbaijan" (President of the Azerbaijan Republic, 2001).

35 Here and further see (if not the other is indicated) Law of the Republic of Belarus "On Budget System and Extrabudgetary Funds of the Republic of Belarus" (Íàöèîíàëüíèé öåíòð ïðàâîâîé èíôîðìàöèè Ðåñïóáëèêè Áåëàðóñü (National Center of Law Information of the Republic of Belarus), 2001).

36 Here and further see (if not the other is indicated) Law of Estonia "On Budgeting" (The Parliament of Estonia, 2001)

37 Here and further see (if not the other is indicated) Georgian Law Review (Georgian Economic Policy and Legal Advice Center, 2001)

38 Here and further see (if not the other is indicated) Box 4.1: The budget Preparation Process (World Bank, 1997, p. 55)

39 Here and further see (if not the other is indicated) Law "On Budget Law in Kyrgyz Republic" (Íîðìàòèâíûå àêòû Äîìà ïðàâèòåëüñòâà, 2001b).

40 See Section 17, Law of Latvia "On the Budget and Financial Management" (The Saeimas of Latvia, 2001).

41 Here and further (if not the other is indicated) see Law of Lithuania "On Budgeting" (Parliament of Lithuania, 2001).

42 Here and further (if not the other is indicated) see Law of the Russian Federation "On the Budget 2000 for the Russian Federation" (Ôåäåðàëüíûé Ñîâåò Ðîññèéñêîé Ôåäåðàöèè, 2001)

43 Here and further (if not the other is indicated) see Law of Ukraine "On Budgetary System of Ukraine" (Âåðõîâíà Ðàäà Óêðà¿íè, 2001 b)

Slovakia		X		5
Poland		X		5

Table A3

Question 3: What kind of borrowing constraints is there on the government?

	No constraints: Govt. borrows if shortfall	Ceiling set by the government	Ceiling set by the parliament	Parliament approves each borrowing operation	Score
Former Soviet Republics					
Armenia			X	X	6.66
Azerbaijan				X	3.33
Belarus			X	X	6.66
Estonia			X		10
Georgia				X	3.33
Kazakhstan				X	3.33
Kyrgyz Republic				X	3.33
Latvia			X	X	6.66
Lithuania			X	X	6.66
Russia			X[45]	X	3.33
Ukraine		X			6.66
Central Europe					
Czech Republic			X	X	6.66
Hungary			X		10
Slovakia			X		10
Poland				X	3.33

[45] See Article 25, Law of the Russian Federation “On the Budget 2000 for the Russian Federation” (Ôåäåðàëüíûé Ñîâåò Ðîññèéñêîé Ôåäåðàöèè, 2001)

Table A4

Question 4: Is the authority of the Minister of Finance greater than that of the spending ministers on budgetary issues?

	Yes, considerably greater	Somewhat greater	No	Score
Former Soviet Republics				
Armenia	X			10
Azerbaijan		X		5
Belarus	X			10
Estonia	X			10
Georgia		X		5
Kazakhstan	X[46]			10
Kyrgyz Republic		X		5
Latvia	X			10
Lithuania	X			10
Russia	X			10
Ukraine		X		5
Central Europe				
Czech Republic		X		5
Hungary	X			10
Slovakia	X			10
Poland		X		5

[46] See Box 4.1: The Budget Preparation Process (World Bank, 1997, p. 55)

Table A5

Question 5: What are the restrictions on the content of amendments to the budget that the parliament can do? The parliament can only pass amendments that...

	That do not increase the deficit	That do not increase spending	That do not increase deficit or spending	With government approval	No restrictions	Score
Former Soviet Republics						
Armenia					X	0
Azerbaijan					X	0
Belarus	X					5
Estonia	X					5
Georgia					X	0
Kazakhstan	X					5
Kyrgyz Republic					X	0
Latvia			X	X		7.5
Lithuania					X	0
Russia					X	0
Ukraine					X	0
Central Europe						
Czech Republic	X					5
Hungary				X		7.5
Slovakia				X		7.5
Poland				X		7.5

Table A6

Question 6: What happens if parliament rejects the budget, or does not approve it within the constitutionally set time frame?

	The previous year's budget is enacted	The budget proposed by government is enacted	The government submits a new budget	No funds may be spent	The government resigns	Score
Former Soviet Republics						
Armenia	X				X[47]	5
Azerbaijan			X (by 12ths)			2
Belarus	X (govt. redist.)					6
Estonia	if rejected (govt. redist.)	if not approved				8
Georgia						
Kazakhstan			X			2
Kyrgyz Republic	X (govt. redist.)					6
Latvia	decentralized agencies	central government				10
Lithuania	X					8
Russia	X (govt. redist.)					6
Ukraine	X (except some articles)					6
Central Europe						
Czech Republic	X	X				9
Hungary	X					8
Slovakia	.	X				10
Poland		X[48] If not approved			X if rejected	7.5

[47] According to Article 90 of the Constitution of Armenia National assembly can voice mistrust to government and remove it if for some reasons parliament cannot agree with budget project (National Assembly of Armenia, 2001).

[48] The polish president can dissolve the parliament if a budget has not been passed on time

Table A7

Question 7: Can the budget be modified after the parliament's approval?

	Yes, only if government initiates the modification and parliament approves it	Yes, if government initiates the modification but without parliament's approval	Yes, if parliament initiates the modification	No	Score
Former Soviet Republics					
Armenia		X			2.5
Azerbaijan	X		X		0
Belarus		X			2.5
Estonia	X				7.5
Georgia			X		0
Kazakhstan		X			2.5
Kyrgyz Republic	X[49] If budget deficit changes	X[50] If budget deficit is unchanged			5
Latvia	X (up to 10%)	X (up to 5%)			5
Lithuania	X				7.5
Russia	X				7.5
Ukraine		X			2.5
Central Europe					
Czech Republic		X			2.5
Hungary	X				7.5
Slovakia	X				7.5
Poland	X				7.5

[49] See Article 15 and Article 65 of the Law "On Budget Law in Kyrgyz Republic" (Íîðìàòèâíûå àêòû Äîìà ïðàâèòåëüñòâà, 2001b).

[50] Ibid.

Table A8

Question 8: Does the government have the legal right to cut spending after approval of the budget?

	At government's discretion on any item	Only when revenues are lower than projected	No	Score
Former Soviet Republics				
Armenia	X			6.66
Azerbaijan	X			6.66
Belarus		X[51]		10
Estonia		X		10
Georgia	X			6.66
Kazakhstan	X			6.66
Kyrgyz Republic		X[52]		10
Latvia		X		10
Lithuania		X		10
Russia		X		10
Ukraine		X		10
Central Europe				
Czech Republic	X	X		8.33
Hungary			X	0
Slovakia	X			6.66
Poland	X			6.66

[51] See Article 17, Law of the Republic of Belarus "On Budget System and Extrabudgetary Funds of the Republic of Belarus" (Íàöèîíàëüíèé öåíòð ïðàâîâîé èíôîðìàöèè Ðåñïóáëèêè Áåëàðóñü (National Center of Law Information of the Republic of Belarus), 2001).

[52] See Article 15 of the Law "On Budget Law in Kyrgyz Republic" (Íîðìàòèâíûå àêòû Äîìà ïðàâèòåëüñòâà, 2001b).

Table A9

Question 9: Does the central government typically assume the debt made by other public agencies? Under what circumstances?

	Frequently	Occasionally	Exceptionally	Only on guaranteed debt	Including non-guaranteed debt	Score
Former Soviet Republics						
Armenia		X			X	3.33
Azerbaijan		X			X[1]	3.33
Belarus	X			X		3.33
Estonia		X		X		6.66
Georgia	X				X	0
Kazakhstan		X			X	3.33
Kyrgyz Republic		X			X	3.33
Latvia		X		X		6.66
Lithuania	X[53]			X[54]		3.33
Russia	X			X		3.33
Ukraine		X		X		6.66
Central Europe						
Czech Republic		X		X		6.66
Hungary		X		X		6.66
Slovakia		X		X		6.66
Poland		X		X		6.66

[53] See SIGMA, Lithuania, 2001.

[54] Ibid.

Table A10

Question 10: Can public agencies borrow autonomously?

	Local governments					Public enterprises				
	With local legislative approval	With central gov't approval	With parliament approval	Yes, without restrictions	No	With central government approval	With parliament approval	Yes, without restrictions	No	Score
Former Soviet Republics										
Armenia					X		X			7.5
Azerbaijan	X domestic		X external				X			4
Belarus		X				X				2.5
Estonia					X				X	10
Georgia				X		X				0
Kazakhstan				X				X		0
Kyrgyz Republic		X[55]				X[56]				6.25
Latvia	X[57]					X				2.5
Lithuania	X[58] 2.5						X			2.5
Russia			X				X			5
Ukraine	X					X				3.75
Central Europe										
Czech Republic		X[59]				X[60]				6.25
Hungary			X			X				5
Slovakia					X	X				7.5
Poland					X	X				7.5

[55] See Article 15 of the Law "On Budget Law in Kyrgyz Republic" (Íîðìàòèâíûå àêòû Äîìà ïðàâèòåëüñòâà, 2001a)

[56] Ibid.

[57] See Section 6 of the Law "On the Budgets and Financial Management" (The Saeima, 2001)

[58] However, Lithuanian legislation requires that local governments keep their budgets in balance or surplus

[59] Branson, de Macedo, and von Hagen, 1998, p. 11.

[60] Ibid.