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MACROECONOMIC POLICY AND
INSTITUTIONS DURING THE
TRANSITION TO EUROPEAN
UNION MEMBERSHIP

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ABSTRACT

A framework is developed for macroeconomic policy analysis in four countries of Central

Europe (CE) in transition to EU membership (Czech Republic, Hungary, Poland, and Slovakia). A

Multi-Annual Fiscal Adjustment Strategy (MAFAS) and a Pre-Pegging Exchange Rate Regime

(PPERR) appropriate for maintaining internal and external balance are described and evidence on

budgetary procedures is presented, in comparison with those prevailing in EU member states.

The comparison suggests that the four CE countries are better fit for fiscal stabilization than

Greece, Spain and Portugal were in the 1970s. Nevertheless, there is still much room for institutional

improvement. A stronger commitment mechanism to fiscal targets at the preparatory stage would

improve fiscal performance in all four countries. The adoption of a kind of convergence program

would also be made easier if some group procedures can be adopted among them.

The four countries also appear to have moved closer to sustainability in their external and

internal balance in the last few years so that a MAFAS and a PPERR become credible. The fact that

they established CEFTA (which Slovenia since joined) also helps set them apart from other EU

associates in the region.

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I.   Introduction.

A common orientation for macroeconomic policy and institutions can be found in the countries of Central Europe (CE) aiming at membership in the European Union (EU). Policy-making institutions in the Czech Republic, Hungary, Poland and Slovakia will eventually conform to those of the EU. The criteria for joining the single currency set forth in the Treaty on European Union will also imply the eventual convergence of their macroeconomic performance. For example, a resolution of the Polish parliament of March 14, 1996 called on the government to prepare a National Integration Strategy envisaging membership negotiations from 1998 to 2000. The economic adjustment part of this document is the most extensive and is divided into several subchapters, detailing how to fulfil "the so called convergence criteria conditioning the participation in European and Monetary Union with a simultaneous maintenance of high economic growth rate". It is supplemented by a document of the Ministry of Finance where the sequencing of policies can be gathered from the title: Euro 2006: Poland on the road to European Monetary Union.

The process of development of a market economy lasts several decades, and the fulfillment of the criteria is not part of the forthcoming enlargement negotiations. Nevertheless, the change in the economic regime of CE countries towards nominal stability is already monitored by world financial markets. Indeed, this occurs both in member and associated states. The reason for this scrutiny is that the regime change requires that the national medium term strategy is credible and that the macroeconomic framework is understood not just internationally but also by citizens and social partners within the country.

Whether or not the reform strategy is understood at home and abroad depends on how policy-making institutions interact with the specifics of the economy and society. The absence of a tax system which is efficient, equitable and simple to run is seen as a major microeconomic and macroeconomic obstacle to growth, as well as to social consensus. The same is true, more broadly, of the absence of a transparent legal environment, which deters domestic and foreign investment. These examples show how institutions may determine whether popular support for reforms is sustained during the transition or instead a "stop and go" reform pattern will emerge, delaying adjustment and ultimately threatening national cohesion. That being said, we confine our analysis of institutions to budgetary procedures in four countries in an advanced stage of transition.

Evaluating the macroeconomic policies and performance of an economy in transition is a difficult task. In earlier work, Branson and de Macedo (1995) developed a framework for that purpose. Here we present more detailed evidence on Czech, Polish, Hungarian, and Slovak budgetary procedures and we extend the framework.

The first problem Branson and de Macedo faced in developing an analytical framework is that, before the beginning of the transition, these economies had very large governments and public enterprise sectors, making it difficult to distinguish monetary from fiscal policy. In a centrally planned economy, there is no private sector, so there is no separate public sector and no public sector deficit or debt. Without a private sector, there is no one for a

public sector to have a deficit with: monetary policy is simply the provision of finance for investment in the plan. Essentially fiscal and monetary policy are the same thing. The four CE countries were somewhat more advanced than other transition economies in having some market institutions at the beginning of transition.

As the economies move through the transition, privatization creates a private sector and the distinction between public and private sectors acquires macroeconomic significance. Fiscal policy gradually emerges as the concepts of public expenditure, tax revenues, government budget, and public debt become operational. With the creation of a central bank, and the withdrawal of the central bank from automatic financing of the budget deficit, monetary policy emerges as the provision of credit to the private sector. During the transition, the countries are expected to introduce market-oriented policy-making institutions in which the distinction between fiscal and monetary policy is clear, and the use of these policies in maintaining internal and external balance can be analyzed in the usual fashion.

Fortunately, at least for economic analysis, these national economies, as all others, face an external constraint along the entire transition path. Their foreign debt cannot become so large that international financial markets perceive that they cannot service it. Their export earnings must be sufficient to finance imports and debt service as the economy becomes increasingly marketized. Therefore, the approach we take to the analysis of macroeconomic policy is first to look for signs of external balance, and then to look to internal balance as the economy is increasingly decontrolled. Signs of internal imbalance, either excessive budget deficits or unacceptably high inflation, are taken as indicators that a currently satisfactory external situation could become unsatisfactory in the future, as the internal imbalance spills over to the external sector.

The second problem is how to evaluate macroeconomic policies and, possibly, recommend policy changes, without a quantitative macroeconomic model. Development of a quantitative model is precluded both because the structure of the CE economies is changing rapidly, and because of the lack of sufficient data. To deal with this problem, they developed as a macroeconomic framework the model of external and internal balance with high capital mobility and a fixed real exchange rate that assigns fiscal policy to internal balance and monetary policy to external balance. The focus is on the development of a Multi-Annual Fiscal Adjustment Strategy (MAFAS) and a Pre-Pegging Exchange Rate Regime (PPERR) as instruments for stabilization.

In their approach to external balance, the CE economies could adopt a PPERR that entails essentially no active nominal devaluation aimed at real devaluation as the country converges toward union membership. In their approach to internal balance, the CE countries could adopt a MAFAS. Both of these policy paths could bring the economies to the point of accession to the EU along as smooth a convergence path as possible. In general, PPERR and MAFAS would be forms of credible policy that stabilize the economy as it enters the world market.

The PPERR avoids the "inconsistent trio" of fixed exchange rate, free capital movements, and independent monetary policy by freeing monetary policy to be targeted on external balance, represented by a suitable reserve position. The MAFAS then sets fiscal policy to maintain internal balance, as represented by a low rate of inflation. The arithmetic of debt sustainability can be used to determine the appropriate primary deficit that is consistent with a

non-growing ratio of debt to output. Thus the fiscal adjustment can be consistent with low inflation and a non-growing debt ratio.

The institutional environment is an important prerequisite for a successful transition to EU membership. Indicators of regime change featuring the development of market institutions are available in European Bank for Reconstruction and Development (1994), (1995) and (1996). Six indicators are calculated and divided into the categories of enterprise reform (three series: large scale privatization, small scale privatization and enterprise restructuring), market and trade reform (two series: price and trade and foreign exchange liberalization) and banking reform. Based on a rating of 4* for most advanced industrial economies, the 4 CE countries already rank 4 on "small scale privatization" and on "trade and foreign exchange regime" and 3 on "enterprise restructuring", "price liberalization" and "banking reform" (except for Poland in 1994, which scores 2). The only mixed rating is large scale privatization where the Czech Republic and Hungary score 4 (Hungary 3 in 1994) and Poland and Slovakia score 3. In EBRD (1995), three new series were added, "competition policy" and "capital markets" where all CE countries score 3, and "legal reform" where Slovakia scores 3 and the others score 4. The variation over time and across countries is of course much greater in countries in early and intermediate stage of transition.

The same can be said of the "success criteria" reported in Branson and de Macedo. The criteria range from "politics" to "market institutions and business mentality". In addition, 17 "other criteria" include geographical situation, market size, stability of law, workforce's level of education, international credit standing, quality of the environment, etc. The ranking presented is Czech Republic, Hungary and Slovenia at the top of the region, closely followed by Poland. Slovakia is somewhat behind, mostly due to a low score on the "politics" dimension. The "other" criteria include "monetary conditions" and "tax advantages" as well as "functioning of state administration" but no mention is made of tax reform, budgetary procedures or the macroeconomic policy mix. Yet the credibility of the transition also requires policy-making institutions in the monetary and fiscal fields which do not exist under central planning.

The institutional requirements are more exacting and more country-specific than the independence of the central bank in matters of monetary policy that was envisioned in the 1992 EU Treaty. Certainly, monetary financing of budget deficits was curtailed during stabilization in former Czechoslovakia, and continues to be forbidden in the Czech Republic and Slovakia, but the situation is less promising in Hungary and Poland.

We deal with the difficulties of emerging fiscal and monetary policy by discussing the institutional arrangements for credible fiscal policy-making in section II. The section evaluates the progress of the four CE countries in attaining an institutional framework conducive to stable public finances. We deal with the absence of quantitative models in section III by presenting a framework for evaluation of a macroeconomic transition path and applying it to the four CE countries. Both sections draw on our previous work. Section IV concludes.

II. Budgeting Process and Credible MAFAS

II.1. The Role of Budget Processes in Economic Transition

A basic problem in all transition economies is to achieve effective control over the government budget. Since the transition is from a state of central planning and strong involvement of the government in the production sector, achieving control over the budget is connected with the problem of reducing and restructuring government expenditures and strengthening the government's system of tax revenues. This means that fiscal reform necessarily involves major distributional conflict. Economic analysis, e.g. Alesina and Drazen (1991) and Velasco (1995), predicts that distributional conflicts jeopardize reform programs, as the fight between differing groups within society over the allocation of the reform's costs and benefits leads to postponement and to solutions of reciprocity, i.e., political outcomes that hold some good for everyone, but an inefficient outcome for society.

Institutional structures can help avoid such inefficiencies. Of course, institutions do not make the distributional conflicts disappear. However, by defining the rules of the game they structure the ways in which the opposing parties can present and defend their claims. Institutional rules divide decision-making processes into individual steps and determine which steps are taken when they assign roles and responsibilities to the various actors, and, by regulating the flow of information, they distribute strategic influence and create or destroy opportunities for collusion. A basic claim of political economy is that institutional rules have systematic effects on the outcome of the decision making processes they govern.

The budget process is the set of institutional rules relevant in the context of budgetary policies and, therefore, in the context of fiscal reform. Formally, the budget is a list of revenues and expenses conveying what the government expects and is authorized to do during a certain time period. The budget process, in the broadest sense, is a system of 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. Political economy views the budget process as a mechanism through which political interest groups "bargain over conflicting goals, make side-payments, and try to motivate one another to accomplish their objectives" [Wildavsky (1975, p. 4)]. Constitutional theory holds that the budget process should be the principal and effective locus of conflict resolution between competing claims on public resources, to assure the stability, consistency, and efficiency of the government's financial policy. Informal decision-making and agreements outside the budget process, "non-decisions" (i.e., the lack of nodes of deliberate decisions in the process), and the use of off-budget funds are all sources constitutional failure of the budget process. They promote irresponsibility and obscurity of government financial policies [von Hagen and Harden, (1994)].

The importance of individual elements of the budget process, such as veto powers or committee structures, for fiscal performance has long been studied empirically in the context of American state governments. Only recently an emerging literature considers the impact of the budget process on the fiscal performance of national

governments on an international scale. In contrast to the American literature, this new approach is based on comprehensive characterizations of the budget process, summarized in numerical indices describing the quality of a process. Thus, von Hagen (1992) and von Hagen and Harden (1994), (1996) show that the stark differences in fiscal performance among the EU governments can be explained to a large extent by differences in budgetary institutions. They identify decentralization of the budget process, i.e., the degree to which geographical, sectoral or other special interests dominate over the common interest of the government in budgetary decisions, as the main cause of weak fiscal discipline. Specifically, they show that countries with a low degree of centralization of the budget process have systematically higher ratios of public spending, and deficits and debts, to GDP than countries with large degrees of centralization. Similarly, Alesina et al (1996) show that countries with a high degree of centralization of the budget process in Latin America have lower deficits and debts. Results also suggest that Latin American countries with a centralized budget process are able to achieve a higher degree of macroeconomic stabilization and are less prone to credit-rationing. All this evidence suggests that an appropriate budget process is an important prerequisite of a successful fiscal regime, and that reform of the budget process can be an important part of a fiscal reform aiming at fiscal stabilization [e.g. the papers gathered in Poterba and von Hagen (forthcoming), featuring references to the 1997 World Development Report].

II.2. Political Economy Considerations

A general characteristic of modern public finances is that government activities, including tax benefits, tend to be targeted at specific groups while being paid for by the general taxpayer [Buchanan and Tullock (1961), Olson (1965)]. The incongruence between those who benefit and those who pay has important implications. Policy makers representing spending agencies or groups benefiting from particular public activities take into account the full benefit from expanding the programs they are concerned with, but recognize only that part of the costs that falls on their constituencies. As a result, policy makers systematically over-estimate the net marginal benefit of increasing public spending and, hence, use their political influence to increase spending beyond the level that would equate social marginal costs and benefits. For example, a member of parliament representing a local electoral district will appreciate the full value of road improvements for the local economy. But since his district pays only a small portion of the central government's tax revenues, he will ask for more road improvements when the central government pays for them than when they have to be paid for by local taxes. As all policy makers have reasons to behave in the same way, the result is excessive spending. Even if current spending is divided efficiently between current and future taxes, this leads to excessive deficits and debts, too. This the common pool problem of government budgeting [Ostrom et al (1993)].

The common pool problem can be shown to generate both excessive spending and excessive deficits and debt [Poterba and von Hagen (forthcoming)]. Obviously, it is a result of a coordination failure among the participants of budgetary decisions: as in other common pool problems, the issue is that the individual decision maker does not

recognize the externality his (individually) optimal decision exerts on the others. Specifically, the individual decision maker bidding for more public monies does not take into account the resulting increase in the burden falling on (current and future) tax payers who are not members of his constituency.

The basic claim of the political economy of budgeting is that this coordination failure can be overcome by appropriate design of the budget process. To achieve this, the budget process must promote decision making with a view towards the common interest of the government rather than the individual interests of politicians representing interest groups. Thus, a budget process with a high degree of centralization helps to internalize the relevant externalities and reduces the spending and deficit biases resulting from the common pool problem. As in other common-pool problems, leadership and bargaining are the principal mechanisms that can be employed for this purpose.

The budget processes of EU states can generally be divided into four main steps: a preparatory stage within the executive, a legislative stage in parliament, an implementation stage again within the executive, and an ex post control stage involving courts of auditors or similar institutions. Here, we are mainly concerned with the first three stages. For each one of these, institutional mechanisms can be identified that mitigate the common pool problem.

During the preparatory stage, the budget process can be interpreted as a game between the various ministers forming the government. Ministers heading spending departments represent special interests within the executive. In contrast, the prime minister and the finance minister can be assumed to put more emphasis on the collective interest of the government as a group. There are two principal mechanisms to achieve this. One is collective bargaining among the spending ministers at the outset of the process to set the main parameters of the budget (i.e., its total size, departmental allocations and the size of the deficit). The other is to give the finance minister and the prime minister a role of strategic dominance over the spending ministers. Since the prime minister and the finance minister pursue the collective interest of the group rather than individual or sectoral interests, vesting them with special powers reduces the influence of special interests in budgetary decisions. Hallerberg and von Hagen (1997) argue that the choice between these two approaches is ultimately a function of the structure of government: multi-party coalition governments will find it easier to adopt a bargaining approach rather than vesting the finance minister - who must necessarily be a member of one of the coalition parties - with special powers, since this would raise legitimate fears that the finance minister would use his powers to favor the members of his own party. To increase the stability of the bargaining approach, coalition governments often write their fiscal strategy into the coalition agreement to protect it against reneging. In contrast, single-party governments tend to prefer the strategic dominance approach, because it is more flexible than a negotiated coalition agreement. This pattern of choices can be observed among EU governments.

At the parliamentary stage, the degree of centralization depends largely on the agenda setting power of the executive over the legislature. Agenda setting power is stronger in unicameral systems, where the executive faces only one opponent, than in bi-cameral systems. In bi-cameral systems, the executive's agenda-setting power is effectively strengthened if the budgetary powers of the upper house are limited, such as in France, Germany or the

US. Furthermore, agenda-setting power depends on the scope of amendments that parliament can make to the government's budget proposal, and on the government's ability to impose a voting procedure on parliament, such as a vote of confidence or the possibility to force parliament to vote over large sections of the budget simultaneously.

At the implementation stage, the critical variable is the degree to which the budget law effectively binds government actions. The more scope there is for deviations from the budget act, and the more frequent supplementary budgets are, the less binding is the budget act. Furthermore, strengthening the finance minister's control over the budget implementation, e.g. by subjecting spending departments to quarterly cash limits, limits the scope of strategic behavior in the implementation. A final dimension concerns the informativeness of the budget documents. The less informative they are, the more the government can hide its true intentions from the scrutiny of the parliamentary committees and the ex-post control organs, leading to a greater scope of deviations from the budget act.

von Hagen and Harden (1996) construct indices characterizing budget processes of European governments in these dimensions. A large value on their index of centralization indicates a high degree of centralization. According to the political economy of budgeting, this should be paired with smaller deficits than a small value of the index. Figure 1 confirms that prediction.

Figure 1
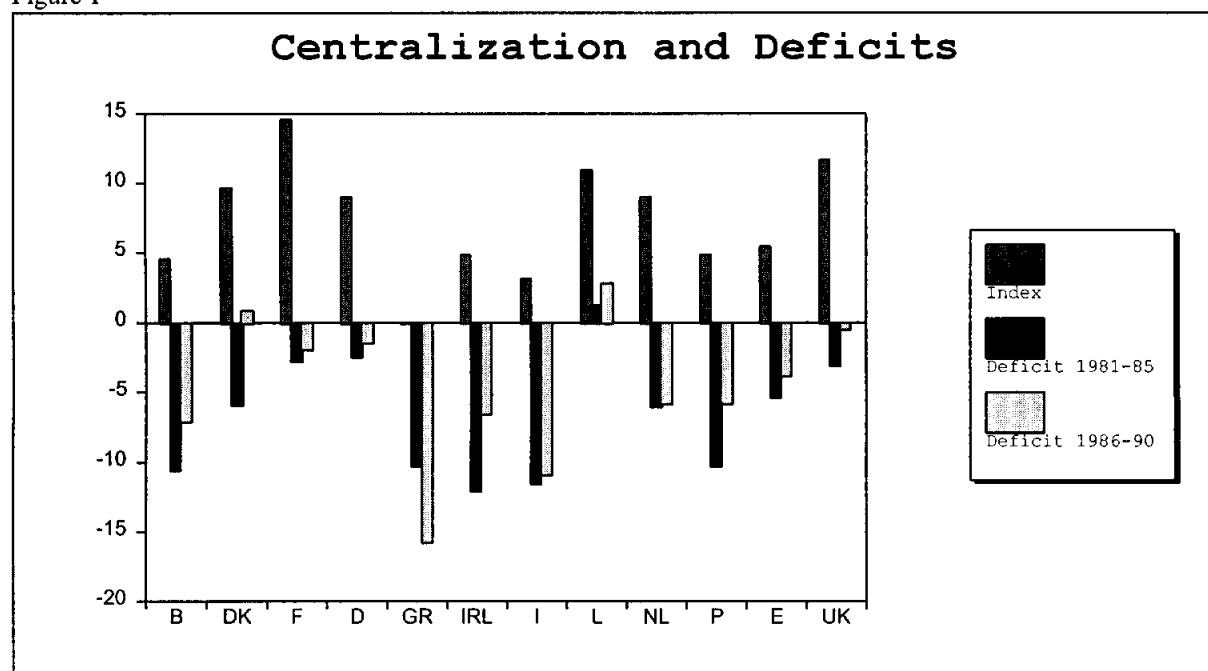
Source: von Hagen and Harden (1996)

In sum, the empirical evidence suggests that appropriate design of the government budget process can be an important element of a fiscal strategy aiming and fiscal stabilization. Reform of the budget process would thus be critical in a macroeconomic reform strategy. We now turn to an analysis of the budget processes in the four CE countries.

II.3. Budget Processes in the four CE Countries

Budgetary institutions in the CE countries are obviously still very young. Even where all the necessary laws exist, they have been in operation only for a short time, so that a common understanding of the rules of all participants in the process, which is often more important in practice than the letter of the law, is still only emerging. Nevertheless, a first assessment of the young institutions is possible.

For this purpose, our research is based on a questionnaire answered by local experts from government and the central bank. The answers of the respondents are used to characterize the budget processes using a list of items taken from von Hagen (1992). These items are listed in Table 1. They are grouped in four dimensions: the degrees of centralization of each stage in the budget process, and the informativeness of the budget.

Table 1: Dimensions of Budget Characterizations

Preparatory Stage	Parliamentary Stage	Implementation Stage	Informativeness
Existence numerical constraints for budget	Formal limits on amendments	blocking power of finance minister	scope of off-budget funds
commitment power of numerical constraints	amendments required to leave deficit unchanged	existence of cash limits on departments	sparation of budget documents
structure of budget negotiations	budgetary powers of upper house	requirement of disbursement approval	transparency of budget documents
agenda setting power of finance minister	government power to choose voting procedure	carryover of funds to next year	link to national accounts
procedure for conflict resolution	government power to call vote of confidence	scope of budgetary transfers	government loans reported
	sequence of votes	difficulty to obtain supplementary budget	

Source: von Hagen (1992)

Budget preparation in the four countries evolves in the executive branch of government. It starts with the

formulation of budgetary targets for total spending and revenues. These targets are proposed by the prime or finance ministers and adopted by the Cabinet. In Poland and the Czech Republic, other members of cabinet can make counter proposals. In Hungary and Slovakia, fiscal targets are also part of the government's coalition agreement. Only in Slovakia they are not fully derived from general macroeconomic forecasts. Budget negotiations are conducted bilaterally between the finance minister and the spending ministers; remaining conflicts from these bilateral negotiations are resolved in cabinet meetings (Czech Republic, Poland and Hungary) or in senior cabinet committees (Slovakia and Hungary). The latter tends to provide a greater check on reciprocity than the former and, hence, promotes fiscal discipline.

Among the four countries, only Poland has a bi-cameral parliament. The upper house examines and amends the budget under the same rules as the lower house. However, its budget can be overruled by an absolute majority vote in the lower house. Only in the CR are parliamentary amendments formally restricted in that they cannot change the overall balance of the budget. In Slovakia, however, an amendment requires the consent of the executive. In Poland and Slovakia, the government's position is strengthened by the rule that its proposal will be implemented if parliament does not pass a budget bill on time. In Poland, the president can dissolve parliament if a budget has not been passed on time. In the other two countries, the previous budget will be prorated into the next year in that case. The Polish parliament holds an initial vote on the government's proposal which, if the proposal is rejected, forces the government to resign. The Polish president under the current constitution has a right to veto the budget bill within 30 days after its passage through parliament; this right will be eliminated according to the draft of the new constitution.

There are strong similarities in the implementation stages. Spending departments are required to seek approval before they can spend funds and are subject to cash limits to control the flow of funds. In Slovakia, Poland, and Hungary, the finance minister can block expenditures during implementation. Budgetary transfers are possible within chapters of the budget; transfers between chapters can be authorized by the finance ministers in Hungary and Slovakia. The Czech finance minister can authorize substantive changes in the budget in exceptional cases without legislative approval. Carry-over of funds into the next fiscal year requires legislative approval in the Czech Republic and in Hungary. In Slovakia, a limited portion of the budget can be carried over without explicit approval, while, in Poland, investment expenditures can be carried over with no limits, reserves cannot be carried over at all, and the carry-over of other funds requires authorization in cabinet.

National budgets are presented in a unified document except in Hungary. The budget document provides a breakdown by functional classifications except in Poland, by administrative responsibility, by sources of revenue, and a classification of capital and current expenditures. A link to national accounting is provided in Poland and in Slovakia. Social security and other transfer programs are not included in the government budget.

To translate these qualitative characterizations into a numerical scale, we follow the methodology of von Hagen (1992). Scores ranging from zero to four are given for each individual item. The scores are then normalized such that the maximum score in each dimension is 16. The overall index is the harmonic mean of these four sub-

indices. Table 2 reports the scores of the four countries according to each item and on the overall index.

Table 2: Index of Centralization for Four Budget Processes

Item	Czech Republic	Poland	Slovac Republic	Hungary
Centralization at Executive Stage	6.7	7.3	10.7	11.3
Centralization at Parliamentary Stage	8	5	5.5	7
Centralization at Implementation Stage	11.2	10.0	11.0	11.9
Informativeness	10.4	12.0	14.4	7.2
Index	8.9	8.1	9.8	9.1

On the overall index, the differences among the four countries are small compared to the differences among the EU countries, where the index ranges from 5 to 15. But differences in the individual items are interesting. Centralization at the preparatory stage is weak in the Czech Republic and Poland compared to Hungary and Slovakia. These differences are mainly due to a greater scope for compromise among all members of cabinet - a greater scope for reciprocity - in the former countries and the link between fiscal targets and coalition agreements prevailing in the latter two. Centralization at the legislative stage is stronger in the Czech Republic, the only country with formal limits on amendments, and Hungary, where the government seems to have more control over voting procedures relating to the budget. The relatively small importance of off-budget funds contributes to Slovakia's high rank on informativeness, while in Hungary, informativeness is lower partly because of the importance of off-budget activities of the government.

The role of these indices is to facilitate cross-country comparison of institutional environments and to derive predictions about the relative fiscal performance about the countries considered. Two strong caveats apply to the latter function. First, all four countries are still in the process of transition and have started this process from different fiscal positions. This is particularly true for the Czech Republic and Slovakia. The splitting of the federation in 1993 had very different budgetary implications for the two, creating windfall gains for the Czech government and windfall losses for the Slovak government [(OECD 1996a, b)]. This makes a comparison of fiscal performance in terms of deficit and spending ratios difficult.

Second, the institutions characterized by our indices are themselves still young. In contrast to the EU and Latin American experiences described in earlier studies, we cannot rely much on "established practices". Furthermore, it is not unlikely that the relatively strong design of the budget process in Slovakia, for example, is a reflection of the fiscal crisis experienced after the splitting of the federation, while the relatively weak design of the Czech process may reflect a bit of complacency on the part of the government in view of the relatively comfortable fiscal outcome of 1993 and 1994.

Table 3: Fiscal Outcomes

year	1993	1994	1995	1996
	Government Deficit (% of GDP)			
Czech Republic	-0.5	-1.0	0.3	
Poland	2.8	2.7	2.6	2.8
Slovak Republic	7.5	.4	-0.1	-.3
Hungary	.3	.9	-2.8	-1.2
	Central Government Spending (% of GDP)			
Czech Republic	38.6	36.0	34.7	
Poland	32.3	32.7	31.9	31.8
Slovak Republic		31.9	30.7	28.8
Hungary		32.9	31.4	28.3

Note: (-) indicates a surplus. Sources: Nemec (1997), Gaspar (1997), OECD (1995, 1996a, b)

With these caveats in mind, we can consider the indicators of fiscal outcomes reported in Table 3. Government deficits in 1995 and 1996 are consistent with the rankings of our indices: Hungary and Slovakia show smaller deficits than Poland and the Czech Republic. For a more careful interpretation, however, it is perhaps more adequate to consider the changes in deficits rather than the levels. Here, the two countries ranking best on the index of centralization achieved significant improvements since 1993; Slovakia from a deficit of 7.5 percent to a surplus of 0.3 percent of GDP, Hungary from a slight deficit in 1993 to a strong surplus in 1995 and 1996. In contrast, Poland showed no sign of deficit improvement, while the Czech fiscal balance worsened over this period. The Slovak and the Hungarian improvements came with falling ratios of government expenditures to GDP, evidence that points to the sustainability of the improvements [Alesina and Perotti (1996)]. Poland's spending ratio fell only very slightly. The decline in the Czech central government spending was matched by an even stronger decline in revenues, painting a less promising picture of future fiscal developments. This evidence suggests that the stronger design of the budget processes in Slovakia and Hungary were helpful for these governments to achieve fiscal consolidation.

II.4. International Comparisons

It is interesting, finally, to use the institutional indices for a comparison between our four countries and the current members of the EU. In that group, Poland is closest to Spain (index = 7.8) and the Czech Republic falls between Spain and Portugal (index = 8.1). Austria (index = 10.2) is closer to Slovakia and Hungary. Greece has an index value of 5.4. Centralization at the preparatory stage is best comparable to the Netherlands (9.8), Portugal (9.8) stronger than in Italy (5.1) and Spain (5.3), but much weaker than in Denmark (12.2) or Austria (13.2). Centralization at the legislative stage is comparable to Denmark (8) in the Czech case, but, due to the lack of amendment controls, only to Italy (5) or Ireland (5) in the other cases. In contrast, centralization at the implementation stage is relatively high, comparable to Austria (11.4) and Denmark (9.6). Similarly, the four countries score relatively well regarding the informativeness of the budget, where the Netherlands (14.4) and

Denmark (10.6) have comparable index values.

Improvement in procedures from the viewpoint of future taxpayers have been slow, in part because budgetary institutions in EU states have remained virtually unchanged for decades. In the early 1980s improvements did occur in Denmark, for largely domestic reasons. The other case of improvement is Portugal, where a MAFAS was gradually set in place in the late 1980s and then implemented in 1992, as an accompanying policy to membership in the European Monetary System.

Considering the recent experience of the Southern European countries with multi-party democracy, the transition to a more market-oriented regime and fiscal outcomes is particularly interesting for CE countries as institutional change and macroeconomic performance interact. Greece, Spain and Portugal all experienced rapidly rising government expenditures and deficits following their liberalizations. Defining two years of non-increasing government spending ratios as successful fiscal stabilization, it took Greece until 1985 to achieve stabilization, Spain equally to 1985, though starting at a later date, and Portugal, which started yet later, until 1983. Deficit stabilization was reached by all three countries in 1985. Thus, consistent with the ranking on our institutional index, Portugal took the shortest, and Greece the longest time to fiscal stabilization. The three Southern European cases are described in Bliss and de Macedo (1990).

The adoption of a kind of convergence program is easier if some group procedures can be adopted. The attempt to merge multilateral surveillance with excessive deficit procedures in the run up to the single currency is certainly a welcome step among member states. The time it took and the interference with other areas of institutional reform suggests however that the adaptation will be slow [de Macedo, Eichengreen and Reis (1996)].

III.   The Macro Evaluation Framework.

III.1   Policy assignment.

Another basic problem in all transition economies is analyzing macroeconomic policy without a quantitative model. This problem has come up in the course of the evaluation of World Bank structural adjustment programs [Branson et al (1996)]. There a framework that combines a model of policy assignment and debt sustainability criteria was developed to deal with the problem. A version of this framework, adapted for the particular circumstances of the CE countries, seems useful for analyzing their macro policies with reference to something like a convergence program which would encompass a PPERR, a MAFAS and a catalog of structural measures designed to remove the macroeconomic and microeconomic obstacles to growth.

The convergence program presumably has realistic objectives for internal balance, represented by GDP growth and inflation; external balance, represented by foreign exchange reserves; and the current account (and thereby growth of debt). The program sets the instruments for fiscal policy, monetary policy, and the exchange rate that are expected simultaneously to bring the economy at least close to the objectives. No issue of policy assignment

arises at this stage. However, during the course of the program, it is almost certain that some unpredictable disturbance will appear, and policy will have to adjust. But if time and information are in short supply, it can be essential to know in advance which instrument should take the lead in adjustment, depending on which target variable has gone off course.

The reason is that some pairings of instruments to targets will lead to convergence back toward the joint objectives, but other pairings will lead away. The first pairings are stable policy assignments; the second are unstable. The basis for a stable policy assignment is the principle of effective market classification, which says that each instrument should be assigned to the target variable that is relatively most sensitive to that instrument [Mundell (1962)]. This is essentially the application of the principle of comparative advantage to policy choice.

Mundell analyzed the problem of assignment when there are two targets and two instruments. The government budget surplus represents fiscal policy and the interest rate represents monetary policy. These are used as instruments to reach internal and external balance. The targets are measured by non-inflationary aggregate demand and balance of payments equilibrium respectively. In that case stability is ensured by assigning fiscal policy to internal balance and monetary policy to external balance. He also showed that the opposite assignment is unstable.

An example of an unstable assignment which is relevant to fast reformers in CE is a monetary policy reaction to the investment boom which would follow if the transition to EU membership is perceived to be successful. Figure 2, reproduced from Branson and de Macedo (1995), illustrates the situation. The economy is represented at point T_o after the transition begins but before the investment boom. An investment boom would shift both equilibrium curves out (or up; it is the same thing since both are downward sloping). The budget or monetary policy would have to tighten both for internal and external balance. The target for policy would move to point T_1 in the figure.

Figure 2

Policy reaction to an Investment Boom
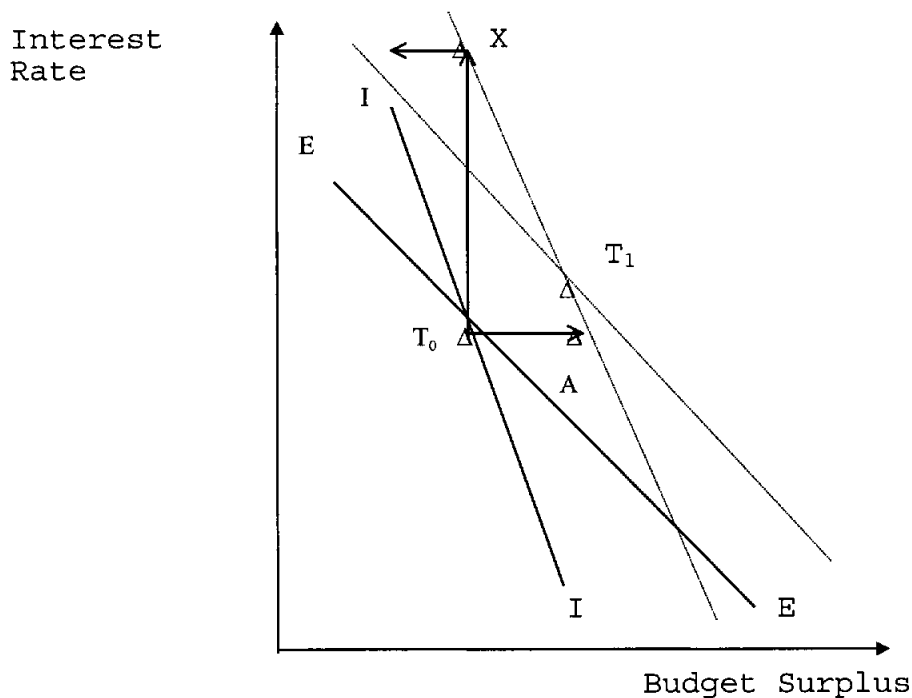
An initial fiscal policy reaction would take the economy to point A, close to T_1, requiring small further policy adjustments to get right on target. If fiscal policy does not adjust sufficiently, monetary policy is left to hold down aggregate demand. An initial monetary policy reaction would take the economy toward a point such as X, onto internal balance, but with a balance of payments surplus. The unstable assignment moves the economy away from the joint target. Once again the stable assignment is fiscal policy to maintain internal balance and monetary policy to maintain external balance.

III.2 Application to the CE countries.

In the application to the CE countries, our macro evaluation framework extends the assignment model to three targets and three instruments. It uses the principle of effective market classification to assign fiscal policy to internal balance, the real exchange rate to the current account, and the interest rate to external balance in terms of foreign exchange reserves.

We generally assume that an unacceptably high level of aggregate demand (or high rate of inflation) indicates the need for reduction in the primary (or non-interest) budget deficit, or increase in the surplus. This can be interpreted as reducing inflation by reducing aggregate demand, or it can be interpreted as reducing the need for

inflation tax financing of the deficit. As in the two by two example just described, we assume that the level of aggregate demand A depends on the primary budget deficit p and the real interest rate r:

(1) $A = A(p, r);\ A_p > 0;\ A_r < 0.$

The corresponding adjustment equation for the primary deficit can be written as:

(2) $dp = -\delta[A(p, r) - A^*].$

Here the primary deficit is assumed to adjust to the difference between aggregate demand and its target value A^*.

There are two objectives for external balance: appropriate levels of the current account balance and foreign exchange reserves. The path of the real exchange rate e is tied to the current account objective which is a suitable level of the primary current account balance C. Then the domestic rate of inflation gives the path of the nominal exchange rate that is consistent with the path of the real rate that attains the current account objective. The current account adjustment equation is given by:

(3) $de = -\lambda[C(e, Z) - C^*];\ C_e > 0.$

Here C^* is the target for the primary current account balance and Z are other variables affecting the primary current account.

Most countries have some degree of international capital mobility, so that if their real interest rates get too far below international rates, there will be a capital outflow and loss of reserves. This implies that maintenance of external balance in terms of the level of foreign exchange reserves requires keeping real interest rates high enough relative to international rates that the relevant investors are willing to keep their deposits and other investments in the country. This relationship is expressed in the capital mobility term K in equation (4):

(4) $dF - dR = K[r - r^* - de - rp(p)];\ K' > 0\ ;\ rp' > 0.$

Here dF is the total capital account, the change in national net foreign assets, dR is the change in net foreign exchange reserves, and K is the net private capital inflow. F, R, and K are all measured in foreign exchange. Following Branson and Jaffee (1991), K is a function of the interest differential adjusted for expected real depreciation and a risk premium, where r is the domestic real interest rate, r^* is the international real interest rate, de is now the expected rate of depreciation of the real exchange rate, and rp is a risk premium that embodies the market's estimate of the risk in holding local currency assets, the monopoly power of local financial intermediaries, and other aspects of financial structure capital markets. It includes departures from uncovered interest parity and

changes in the real exchange rate rather than the decomposition between political and currency risk used e.g. by Frankel and MacArthur (1988). The risk premium is assumed to be an increasing function of the primary budget deficit p. The degree of capital mobility is expressed in the size of the positive derivative of the capital mobility term K'.

The corresponding adjustment equation for the real interest rate is given by:

(5) $dr = -\beta [K - K^*]$,

where K is specified as in equation (4) and K* is the target for the private capital account. Given dF, this implies the target for reserve movements.

The three adjustment equations can be linearized around the equilibrium values of e, p and r (denoted respectively by e~, p~ and r~) and presented in matrix form as in equation (6):

$$
(6) \quad \begin{pmatrix} de \\ dp \\ dr \end{pmatrix} = \begin{bmatrix} -\lambda c_e & 0 & 0 \\ 0 & -\delta A_p & -\delta A_r \\ 0 & -\beta K' r p' & -\beta K' \end{bmatrix} \begin{pmatrix} e - e \sim \\ p - p \sim \\ r - r \sim \end{pmatrix}
$$

This system is recursive for simplicity. It would be easy to include p or r in the Z vector which affects the primary current account in equation (3). Given that the matrix is bloc-diagonal, the stability conditions are a negative trace and a positive determinant of the two by two system in the lower bloc of the matrix in equation (6). This is the system behind the example in Figure 2. It is clear from our sign assumptions that the trace of the matrix is negative and the sign of the determinant of the two by two system is positive.

Coming back to Figure 2, it can be seen as implying a real exchange rate which keeps the current account at its desired level. To the extent that the investment boom falls exclusively on domestic goods, the equilibrium real exchange rate would not change in the adjustment process. In general however the real exchange rate will have to change. If equation (3) above is violated, and the required change in e does not happen, the two by two policy assignment can no longer ensure stable adjustment to the new three by three equilibrium.

III.3 Domestic and foreign debt sustainability

The policy assignments discussed above include a target value for the current account and a policy setting for the primary budget deficit. These are respectively the rates of change of the country's foreign debt and the government's public debt, introducing the intertemporal dimension into the discussion. The intertemporal consistency of the application of the macro framework can be checked by looking at the arithmetic of foreign or

public debt sustainability [Cohen (1985)].

The country's budget constraint in real terms can be written as a formula for the growth of the ratio of foreign debt to exports:

(7) $df = (r* - n*)f + c(e),$

where f is the ratio of foreign debt to exports, df is its arithmetic (not percentage) annual increase, $r*$ is the international real interest rate from equation (4), $n*$ is the growth rate of exports, and c is the primary current account deficit as a fraction of exports (with c' positive).

In the case of the public debt, the government's budget constraint in real terms is:

(8) $db = (r - n)b + p - s,$

where b is the ratio of public debt to GDP, db is its arithmetic annual increase, r is the real interest rate, n is the growth rate of real GDP, p is now the primary budget deficit as a fraction of GDP, and s is the ratio of seigniorage to GDP. Seigniorage here includes both the "inflation tax" and real growth in demand for base money as the economy grows. The seigniorage term in the debt dynamics equation (8) is

(9) $s = (dq + n)/v,$

where dq is the inflation rate, and v is the velocity of base money.

The intertemporal model gives the equilibrium values for e, p and r in the assignment model presented in equation (6) above. To solve the intertemporal model, first use (9) to determine s. Then (7) is one equation in the policy variables r and p, given the objective of db = 0. Equation (4) can be solved for the tradeoff between the two policy variables r and p, given dF - dR. Equation (7) can be solved for the value of the real exchange rate e which creates a primary current account surplus that sets df = 0, recursive to the first two equations.

Generally, the current values of the variables on the right side of equations (7) and (8) are known, so they can be used to calculate the paths of the debt ratios, or the components of an IMF program, on the assumption that the paths of these variables remain unchanged. However, these variables are all endogenous, and their paths will change over time. In the absence of a quantitative model, it is difficult to predict how their paths will change, so we need to use the assignment model for policy to proceed incrementally. The directions for policy change indicated by the debt dynamics approach are the same as those indicated by the policy assignment model. If inflation threatens internal balance, reduce the primary budget deficit. If the current account deficit is too large, devalue in real terms. If foreign exchange reserves are too low, or falling too fast, tighten monetary policy; that is, shift from money finance toward debt finance of the existing budget deficit. These three relationships give the direction of policy

actions and the expected outcomes.

III.4   A policy matrix applied to CE countries

The CE countries provide especially interesting conditions for application of the macroeconomic framework. Their commitment to eventual adherence to the EU gives them clear terminal conditions, including either a fixed nominal exchange rate or joining a single currency. Thus while an early devaluation in order to establish external balance may be necessary, at some point along the path they will adopt the PPERR, limiting the movement of the exchange rate, what the EU Treaty calls observation of "normal fluctuation margins". The introduction of PPERR also requires a successful move to full currency convertibility.

The CE countries are developing countries with changing structures, so the MAFAS and PPERR must be flexible enough to accommodate structural change. The countries are also in a sense competing with each other not to fall behind on the path to accession, to fall into the next round of potential entrants from the south or farther east. So getting to the point where MAFAS and PPERR can be credibly adopted has some urgency.

We have two objectives in applying the framework to the CE countries. The first is to see to what extent movements of target variables and instruments correspond as expected since the beginning of the transition. This could be taken either as a test of how well the framework fits, or of how far along they are in the transition. Branson and de Macedo (1995) show that the correspondence between movements in net exports of goods and non-factor services and the real effective exchange rate is reasonable in all cases, and that between the inflation rate and the budget deficit is not bad. All of the countries still have substantial capital controls and are in the early stages of financial reform and development. Only Hungary showed the expected correspondence between movements in the real interest differential and foreign exchange reserves; none is revealed yet for the other countries.

The second objective of the application is to assess how far along in the transition to EU membership the CE countries are. We want to get some idea of which countries are close to the point at which they can adopt MAFAS and PPERR, and which may require front-loaded structural adjustment, in the form of deficit reduction procedures or real devaluation, before adopting MAFAS and PPERR.

In applying the framework to the CE countries, we first focus on external balance. The countries still have a substantial public sector yet to be privatized; the definition of the public debt is unclear, and data are not available; the coverage of the public sector deficit is uncertain. In addition, in some cases there is still a degree of price control that makes the concept of internal balance unclear. On the other hand, the concept of external balance and the external constraint are clear. Thus we first ask if the economy is in external balance, both in terms of the current stock of foreign debt, and in terms of the current flow in the current account deficit. Then we ask if the fiscal position seems consistent with internal balance, taking a large fiscal deficit as an indicator that a current state of external balance may be threatened in the future.

For external balance, we check whether net exports of goods and non-factor services, as the flow measure,

corresponds to the real effective exchange rate as expected. In particular, does the trend in net exports suggest the need for a real devaluation prior to adopting a PPERR? In assessing the trend in net exports we also look at the dynamics of foreign debt. Up to 1994, Hungary shows the most rapid increase in the ratio, with the debt rising by almost half of export revenue in a year. Poland also has a rising ratio. Slovakia is near zero, and the Czech ratio is falling. If the current ratio of foreign debt to exports is not increasing, then the country is likely to be able to sustain the debt path in the absence of structural change with negative consequences for the current account.

As a measure of internal balance we look to the inflation rate, with the budget deficit as the corresponding policy instrument. The aggregate budget deficit is a necessary, but not sufficient indicator for internal balance, for institutional, measurement and structural reasons.

Fiscal consolidation will involve major structural changes in the budget. Aside from further improvements in the tax system, measures are likely to be taken on the expenditure side. An example is the very high level of publicly-provided pensions, with liberal provisions for retirement. In several of the CE countries, the flow of public pension payments is well above 10 percent of GDP. If we use a discount rate of 10 percent to capitalize this stream, pension debt is 100 percent of GDP. Thus something structural is likely to be done about pensions, as well as many other fiscal issues. Thus fiscal consolidation may require some form of social contract to be effective, and it will change the future fiscal position.

In a situation in which the public-private distinction is still emerging, there are conceptual and practical problems in measuring the public deficit, and even worse, the public debt. These reflect the initial absence of a private sector, discussed in the introduction. There is a substantial overlap between monetary and fiscal policy, as much of credit creation finances public sector activity early in the transition. Thus in the early stages net domestic credit creation may be the best measure of fiscal policy, rather than the budget deficit. Unfortunately, data on credit creation are only available since the beginning of the transition for the CE countries, so it is difficult to make any comparisons across the beginning. As the private sector and central bank develop, the focus will shift to the budget deficit as the measure of fiscal policy. Branson and de Macedo (1995) tracked both credit creation and the budget deficit as fiscal measures. It would be good to have a measure of the weight of the private sector in the economy as a way of weighting the two measures.

Normally in doing an analysis of macroeconomic policy we would use a version of equation (8) to study public debt sustainability. However, the lack of clear distinction between private and public sectors and the lack of data make this impossible now. The existence of substantial arrears among public enterprises, the financial system, and the government, with gross debt probably much greater the net debt, make assignment of debt to sectors conceptually difficult, even if we had the data. The existence of unmeasured future claims on the government, such as the pension problem, mentioned earlier, add to the conceptual difficulty. Perhaps the CE governments have a good opportunity for the introduction of a system of generational accounting as their budget processes emerge. See an evaluation of Portugal's MAFAS using this method in Auerbach et al (1997).

The macro framework as applied to the CE countries is summarized in the policy matrix of Figure 3. There

across the top we ask is external balance sustainable, and have the answers "Yes" and "No" defining the two columns. Down the side we ask is internal balance sustainable, with the answers defining the two rows. We put external balance across the top to signify that we have a clearer view of that than of internal balance. The main importance of the internal balance indicators are to suggest that countries in the lower off-diagonal box are likely to slide to the right if internal balance is not achieved. It also seems likely that it is easier to move down in the matrix, with internal balance threatened by inefficient budgetary considerations and political pressures than it is to move up. This points to the need for institutional reform, already discussed in section II.

Figure 3: Policy Matrix

	Is External Balance Sustainable?	
	Yes	No
Is Internal Balance Sustainable? Yes	MAFAS ← Success PPEER Success ↑	MAFAS? REAL DEVALUATION Failure ↓
No	PPERR? Failure → EXCESS DEFICIT PROCEDURE (EDP)	EU LOAN WORLD BANK/IMF ADJUSTMENT PROGRAM

SOURCE: Branson and de Macedo (1995)

Countries in the upper diagonal box are already on or close to a convergence trajectory toward accession to the EU in terms of both external and internal balance, and are in a position to adopt MAFAS and PPERR. Countries in the lower diagonal box are out of balance on both dimensions, and are candidates for an EU loan or an IMF/World Bank structural adjustment program to get close enough to the trajectory to consider MAFAS and PPERR.

Countries on the off-diagonal boxes in the policy matrix are in balance on one front but out of balance on the other, with some discrete adjustment needed to get close to the convergence trajectory. Countries in the upper

off-diagonal box may require a discrete real devaluation to restore external balance before adopting PPERR. They may want to adopt a form of MAFAS that creates the resource freedom to ensure that the devaluation has the intended effect. Countries in the lower diagonal box may require a front-loaded application of a kind of "excessive deficit procedure" (as called for by the Union Treaty for member states) as part of their MAFAS. Their PPERR may allow for some real appreciation as the excessive deficit procedure takes hold. Successful adjustment in either off-diagonal box moves the country to the upper diagonal box, close enough to the convergence trajectory to sustain MAFAS and PPERR. Failed adjustment leads to the lower diagonal box and the need for an adjustment program with outside assistance and conditionality.

The four countries are close to sustainability. The Czech Republic could consider both MAFAS and PPERR. Slovakia seems to be moving towards the upper diagonal box, but it still is probably too soon to adopt MAFAS and PPERR. Hungary has moved from the lower diagonal box, in need of improvement on both external and internal balance, to the upper diagonal box and has been considering MAFAS and PPERR. Poland seemed on the border between the left and right boxes in the bottom row, but, due to strong growth, has been moving up and could consider MAFAS as well as PPERR.

IV.   Conclusion.

The four CE countries are in the middle of the current EU group in terms of the institutional index in section II. Although a prediction of this kind is obviously highly uncertain, this would suggest that they are institutionally better fit for fiscal consolidation and, hence, for EU membership than Greece, Spain and Portugal were in the 1970s. Nevertheless, there is still much room for institutional improvement. A stronger commitment mechanism to fiscal targets at the preparatory stage would improve fiscal performance in all four countries. In the Czech Republic and Poland, reforms of the budget process may be useful to address the relative weakness of the preparatory stage. In Poland, Slovakia and Hungary, the relatively weak position of the government compared to the legislature is probably the weakest point in the current process.

The four countries are close to sustainability in the policy matrix of Section III. The Czech Republic could consider both MAFAS and PPERR. Slovakia seems to be moving towards the upper diagonal box, but it still is probably too soon to adopt MAFAS and PPERR. Hungary has moved from the lower diagonal box, in need of improvement on both external and internal balance, to the upper diagonal box and has been considering MAFAS and PPERR. Poland seemed on the border between the left and right boxes in the bottom row, but, due to strong growth, has been moving up and could consider MAFAS as well as PPERR.

In sum, the CE four are closer to EU procedures and performances, on both macroeconomic, structural and institutional grounds, than other EU associated states and even than some member states were in the recent past. The fact that they established CEFTA (which Slovenia since joined) also helps set them apart from other EU associates in the region. At the same time it makes the adoption of a kind of convergence program easier if some group

procedures can be adopted. But, in spite of the progress already achieved, the adaptation is likely to trail the forthcoming enlargement negotiations of the EU.

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