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Budgetary Subsidies in Centrally Planned Economies in Transition

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Abstract

This paper analyzes budgetary subsidy policy issues that arise when centrally planned economies move toward a market economy. The analysis suggests that subsidy reduction, to be successful, has to be embedded into an overall economic reform program and that during the program's execution, former implicit subsidies are likely to become budgetized. Furthermore, additional pressure on the budget, caused by enterprise restructuring or the introduction of social safety net provisions, necessitates careful policy design. Comprehensive budgetary reform is required to prevent budgetary slippages during the transition process.

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Summary

During the 1980s, budgetary subsidies in centrally planned economies (CPEs) accounted for one fourth to one third of total budgetary outlays and about one sixth of estimated gross domestic product (GDP). They were instruments of government intervention in resource allocation and income distribution. Very recently, since virtually all former CPEs in Central and Eastern Europe have embarked on market-oriented programs of economic reform, it has generally been argued that under their new economic systems, current subsidies are much harder to rationalize and must be substantially reduced or even eliminated.

The paper analyzes budgetary subsidy policy issues that arise when centrally planned economies move toward a market economy. The paper discusses the size and structure of budgetary subsidies in Bulgaria, Czechoslovakia, Hungary, and Poland; highlights major conceptual issues relating to subsidies in CPEs; and investigates current policy issues against the background of recent experiences in Hungary and Poland.

The analysis suggests that a successful subsidy reduction has to be embedded in an overall economic reform program. During the program's execution, subsidies that were formerly implicit (in particular, those related to distorted exchange and interest rates) are likely to be incorporated into the budget. Hence, during the transition period, the total amount of economic subsidies may substantially decrease at the same time the amount of budgetary subsidies increases temporarily. Furthermore, the additional pressure policymakers put on the budget by undertaking programs of enterprise restructuring or social-safety-net provisions compels them to design policy very carefully. Comprehensive budgetary reform is required to prevent budgetary slippages during the transition process.

I. Introduction

During the 1980s, budgetary subsidies in centrally planned economies (CPEs) accounted for one fourth to one third of total budgetary outlays and amounted to around one sixth of estimated gross domestic product (GDP). They acted as instruments for government intervention in resource allocation and income distribution. Overruns in direct and indirect subsidies during budgetary execution were often the main cause of the budgetary deficits that occasionally emerged in an economic system traditionally characterized by small budgetary imbalances.

Virtually all former CPEs in Central and Eastern Europe have recently embarked, or are about to embark on market-oriented economic reform following attempts by Hungary in 1968 and Poland in 1981, to introduce market elements in traditional CPEs, creating so-called modified planned economies (MPEs). 1/ As a result of the apparent failure of this reform approach and of the political changes that took place in 1989, the countries that experimented with MPEs are reforming their economies well beyond their earlier attempts. The main goals of the current reform programs are the introduction of the market as the central mechanism of resource allocation, the comprehensive privatization of enterprises, and the limitation of government intervention in the economy. In this new economic system, current subsidies are much harder to rationalize, and it is a common view that they must be substantially reduced or even eliminated. It is generally argued that without such a step, the distortion in relative prices would persist, impeding the development of efficient markets. Nor could the scope of the budgetary sector be reduced adequately, since new demands are likely to burden the budget, requiring a continued high and almost confiscatory tax burden.

Subsidy reduction, however, is only one element in a country's overall transformation into a market economy. The establishment of a market economy requires many other structural changes, such as the introduction of financial markets; price liberalization, including the introduction of market-clearing real interest rates and a unified exchange rate, and a movement toward market prices; enterprise restructuring and privatization; tax and budgetary reform; and the liberalization of trade and payment reforms, including a movement toward convertible currencies. 2/ Because of the many steps involved in the transformation, the time required to implement them, and the interaction with subsidies, the goal of reducing subsidies has become a

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1/ For an early stylized model of the MPE, see Wolf (1978); see also Wolf (1985).

2/ For a radical blueprint of such a reform program, see Kornai (1990); for a technical discussion of Poland's reform strategy, see Lipton-Sachs (1990).

multidimensional puzzle for which guidelines have not yet been established.

Overall, many more economic subsidies exist in CPEs than are provided through the budget. Besides explicit subsidies, there are numerous implicit subsidies, created through administrative price setting, rationing, or other regulations (such as tax exemptions and relief). Some of these implicit subsidies will disappear during the reform process; others will appear as explicit budgetary subsidies. Consequently, looking at budgetary subsidies and their development provides an incomplete picture because their relative weight is likely to change during the reform process.

The objective of this paper is to shed some light on subsidy issues in CPEs during their transition to market economies, drawing largely on the recent experiences of Hungary and Poland, and to a lesser extent, of Bulgaria and Czechoslovakia. Since the transition is still in progress, the few lessons that can be drawn are tentative but may prove useful for other countries.

The paper is organized as follows. Section II presents an overview of general government expenditure and budgetary subsidies in selected CPEs during the 1980s and discusses the scope and structure of subsidies in these countries. Section III addresses four main conceptual issues of subsidies in CPEs during their transition to market economies: (1) their rationale and evolution, (2) their measurement, (3) the existence of various and important nonbudgetary subsidies, and (4) the sequencing and simultaneity of other reform measures in relation to subsidy reduction. Section IV discusses three central policy issues that have emerged during the transition process: (1) the stickiness of subsidy reduction, (2) the re-emergence of budgetary subsidies during the economic reform, and (3) the emergence of new demands on the budget. Some tentative conclusions are presented in Section V.

II. Size and Structure of Subsidies

In CPEs, the general government traditionally mobilizes and allocates a large amount of resources through the state budget, local budgets, and numerous extrabudgetary funds. Subsidies constitute by far the largest expenditure category. The amounts and structures of subsidies in the four countries selected--Bulgaria, Czechoslovakia, Hungary, and Poland--are broadly similar. Differences, however, do exist, especially with regard to their scope and recipients.

This section gives an overview of the scope and trends of budgetary expenditure and subsidies during the 1980s and discusses the similarities and differences in the provision of subsidies in the four sample countries. Some caveats on the comparability of the data, however, are required. First, the data on general government operations are derived from national data with distinctly different budgetary settings. Although standard Government Finance Statistics procedures, such as consolidation, have been applied, 1/ data reconciliation is far from complete. Second, budgetary subsidies represent only part of the overall subsidies provided in centrally planned economies (see discussion in Section III). And, because different subsidy instruments and institutions are used in these countries, data are not perfectly comparable. Finally, the point of comparison is the GDP, a concept alien to centrally planned economies, which rely on the net material product (NMP). While methods for transition between the two concepts exist and are used for these countries, they require various estimations and imputations. 2/

1. Scope of budgetary operations and subsidies

Consolidated expenditure of the general government (i.e., central and local government and extrabudgetary funds) as a percentage of GDP in the four former CPEs averaged some 55 to 60 percent in the 1980s (Table 1). This is more than 10 percentage points higher than the average levels in Western industrial countries. In the second half of the 1980s, whereas the level of government expenditure in the latter countries stabilized or even decreased, it increased in the four countries considered. There are, however, substantial and increasing differences among the former CPEs. Whereas the range of expenditure shares was less than 10 percentage points at the beginning of the 1980s, this range increased drastically in the second half of the decade, reaching almost 20 percentage points in 1987, with Poland's expenditure share amounting to 47.7 percent and Bulgaria's, to 66.9 percent.

Budgetary subsidies (i.e., subsidies by central and local governments) in these countries averaged some 14 to 15 percent of GDP in the 1980s, which is more than 10 percentage points higher than the average share in Western industrial countries 3/. The four sample countries, however, exhibited some differences in the subsidy level: Bulgaria and Czechoslovakia increased budgetary subsidies, moving from below to above the average for these four countries, while Hungary and Poland, the countries that had already begun to implement economic reforms, reduced them. The latter trend seems to indicate that even before the reforms of 1988, 1989, and, in particular, 1990, direct budgetary subsidies had come under pressure.

These trends in the share of general government expenditure and budgetary subsidy expenditure have resulted in a high share of subsidies in total expenditure, although in some countries, this share was even higher in the past. On average, subsidies now constitute some 25 to

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1/ See the Manual on Government Finance Statistics, IMF (1986).
2/ For a comparison of both concepts and procedures of transition, see United Nations (1977).
3/ Only subsidy expenditures of some of those funds that were established during the period under consideration are included in order to achieve better comparability of data.

Table 1. General Government Expenditure and Budgetary Subsidies in Countries in Transition

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 Prelim.	1990 Budget
						(As a percentage of GDP)						
General Government Expenditure												
Bulgaria 1/	51.6	49.9	53.3	54.7	53.7	51.9	55.2	62.5	66.9	61.8	61.6	61.4
Czechoslovakia 2/	57.3	53.6	55.9	55.3	55.7	56.3	57.4	57.3	58.4	60.7	62.8	60.0
Hungary 3/	...	...	63.1	61.2	61.9	59.4	61.1	64.9	61.6	63.0	62.4	55.2
Poland 3/	...	56.1	60.5	52.2	47.6	48.4	48.2	49.7	47.7	48.0	48.1	42.5
Average	...	...	58.2	55.9	54.7	54.0	55.5	58.6	58.7	58.4	58.7	54.8
Budgetary Subsidies 4/												
Bulgaria	16.8	13.3	16.2	14.1	13.9	12.9	12.2	14.5	19.1	17.8	17.7	18.6
Czechoslovakia	9.5	8.7	11.0	10.2	10.6	12.0	11.8	12.3	12.5	13.0	17.2	15.6
Hungary	...	...	19.8	18.7	19.7	16.5	17.1	16.6	16.2	13.8	13.3	10.0
Poland	...	28.7	30.8	20.7	16.5	17.3	16.5	16.3	15.9	16.0	17.4	8.9
Average	...	...	19.5	15.9	15.1	14.7	14.4	14.9	15.9	15.1	16.4	13.3
						(As a percentage of general government expenditure)						
Budgetary Subsidies 4/												
Bulgaria	32.5	26.6	30.4	25.8	25.8	24.9	22.1	23.2	28.5	28.8	28.7	30.3
Czechoslovakia	16.6	16.1	19.7	18.4	19.0	21.3	20.6	21.5	21.4	21.4	27.4	25.8
Hungary	...	...	31.4	30.5	31.7	27.7	27.9	25.5	26.4	21.9	21.9	17.5
Poland	...	51.1	51.0	39.6	34.6	35.8	34.2	32.7	33.3	33.3	36.1	20.9
Average	...	...	33.1	28.6	27.8	27.4	26.2	25.7	27.4	26.3	28.5	23.6

Source: Derived from national budgetary statistics.

1/ Consolidated state budget, comprising the Republican Budget, budgets of ministries and other units, social security budget and budget of Municipal People's Council.

2/ General government, comprising State Budget, national committees, and extrabudgetary funds.

3/ General government.

4/ Central and local budgets, but, in general, exclusive of extrabudgetary funds.

30 percent of total government expenditure. These magnitudes indicate how crucial it is to reduce subsidies so as to enhance the role of markets and restore macroeconomic balance.

In the past, CPEs traditionally exhibited only small budget deficits, as enterprises were required to turn in a large proportion of their cash flow. Toward the end of the 1980s, however, partly because this requirement was relaxed, deficits surged dramatically, reaching 7 percent of GDP in some countries. Owing largely to the monetary financing of these deficits, liquidity pressures in the economy were substantial, exacerbating existing imbalances in the product and factor markets and increasing pressure to provide subsidies. For 1990, almost all former CPEs plan a substantial reduction in subsidies (see discussion below). However, in view of past experience, this may prove to be difficult.

2. Structure of budgetary subsidies

The data on subsidies in the national statistics do not allow for a direct comparison between the countries. Their classification essentially follows domestic budgetary criteria, with little concern either for intercountry comparison or for economic analysis. The classification in Table 2 is based on their lowest common denominator.

The first broad distinction between subsidies to consumers and subsidies to enterprises and other producing economic units does not take into account their incidence, and thus identifies only the initial recipients of the subsidies rather than the final beneficiaries. However, because CPEs lack effective price mechanisms, these considerations may have less relevance than in market economies. Consumer subsidies are often regarded as "negative turnover taxes," in particular for foodstuffs and other consumer goods (mostly energy), or are designed to lower consumer prices, as for personal transportation and housing. Subsidies to enterprises and other economic units have more versatile economic objectives: to foster key sectors, (e.g., agriculture), to provide cheap inputs or transfers to enterprises, to compensate for an overvalued exchange rate, and to promote foreign trade, as well as to cover the financial obligations for banks and enterprises resulting from foreign borrowing.

On economic grounds, the distinction between consumer and producer subsidies in CPEs is not very strong, since lower prices for foodstuff can be provided either through subsidies to cover the (negative) difference between the wholesale price (plus a retail markup) and the retail price, or through subsidies to the agricultural producer (through, for example, cheaper inputs for fertilizer and tractors). On political grounds, however, the distinction may be important, since the reduction in an outright consumer subsidy, as opposed to an input subsidy, is likely to meet different opposition or may require a

Table 2. Selected Countries: Budgetary Subsidies in Comparison

(In percent of GDP)

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 Prelim.	1990 Budget
Subsidies to consumers												
Bulgaria	1.0	1.2	1.7	2.3	1.9	1.6	1.4	1.6	1.5	1.6	1.5	1.3
Czechoslovakia	1.9	2.3	2.8	3.8	3.8	5.0	5.5	5.7	5.9	5.8	7.8	7.5
Hungary	...	...	...	9.0	9.0	6.9	7.1	7.0	6.9	5.6	7.9	6.1
Poland	...	9.8	11.5	9.1	7.3	7.5	7.3	8.1	9.1	9.5	7.3	2.8
Average	...	...	...	6.1	5.5	5.2	5.3	5.6	5.8	5.6	6.1	4.4
Foodstuff												
Bulgaria	...	...	...	...	...	...	...	...	...	...	...	...
Czechoslovakia	0.4	0.8	0.8	1.8	1.8	2.2	2.7	2.7	2.7	2.6	4.8	...
Hungary	...	...	...	...	...	...	...	...	...	0.4	0.3	0.2
Poland	...	6.5	7.8	3.8	3.4	2.8	3.0	3.1	3.4	4.9	3.7	0.2
Other consumer goods												
Bulgaria	...	...	...	...	...	...	...	...	...	...	...	...
Czechoslovakia	0.5	0.5	0.8	0.9	0.9	1.4	1.5	1.6	1.7	1.7	2.0	...
Hungary	...	...	...	...	...	...	...	...	...	1.9	1.7	1.3
Poland	...	0.3	0.3	0.8	0.6	0.6	0.6	0.8	1.0	0.9	0.3	0.5
Transportation												
Bulgaria	...	...	...	...	...	...	...	...	...	...	...	...
Czechoslovakia	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.5
Hungary	...	...	...	...	...	...	...	...	...	1.1	0.9	0.8
Poland	...	0.9	1.2	1.5	0.8	0.9	0.9	0.9	0.8	0.8	0.9	0.5
Housing												
Bulgaria	...	...	...	...	...	...	...	...	...	...	...	...
Czechoslovakia	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.9	0.9	0.9	0.7	0.6
Hungary	...	...	...	1.4	1.5	1.5	2.3	1.5	1.4	2.1	5.0	3.8
Poland	...	2.0	2.2	3.0	2.5	3.2	2.8	3.1	3.6	2.5	2.2	1.7
Subsidies to enterprises and other economic units												
Bulgaria	15.8	12.1	14.5	11.8	11.9	11.4	10.8	12.9	17.5	16.2	16.1	17.3
Czechoslovakia	7.7	6.3	8.2	6.4	6.7	7.0	6.3	6.6	6.6	7.2	9.4	8.2
Hungary	...	...	...	9.7	10.7	9.5	9.9	9.6	9.4	8.2	5.4	3.9
Poland	...	18.9	19.3	11.5	9.1	9.8	9.2	8.3	7.1	7.0	10.1	6.1
Average	...	...	...	9.8	9.6	9.4	9.0	9.4	10.1	10.0	10.3	8.8
Agriculture												
Bulgaria	—	—	—	—	—	—	—	0.7	1.5	3.5	3.7	4.4
Czechoslovakia	...	4.9	5.2	4.3	4.4	4.4	3.5	3.4	3.2	3.6	4.6	3.9
Hungary	...	...	...	1.1	2.0	1.3	1.5	1.3	1.2	1.1	0.7	0.4
Poland	...	3.7	2.8	1.6	1.5	2.0	1.8	1.8	1.8	1.4	1.2	0.5
Enterprises and other units												
Bulgaria	8.1	6.4	10.3	4.5	5.0	4.4	4.6	5.5	6.4	6.9	6.7	5.6
Czechoslovakia	...	1.3	1.9	0.9	0.9	0.8	0.9	0.6	0.9	1.2	...	1.4
Hungary	...	...	...	3.7	3.9	3.4	3.0	2.3	2.0	1.6	0.7	0.5
Poland	...	...	...	...	...	...	...	...	...	...	...	...
Foreign Trade												
Bulgaria	6.7	4.2	2.7	6.1	6.0	6.2	5.5	5.7	8.6	4.1	3.1	3.3
Czechoslovakia	2.2	0.2	1.0	1.2	1.4	1.8	1.9	2.5	2.5	2.5	2.7	2.6
Hungary	...	...	...	5.0	4.8	4.8	5.4	6.0	6.1	5.5	4.0	3.0
Poland	...	6.7	6.3	2.9	3.1	3.5	3.6	3.1	2.5	2.2	1.3	0.6
Foreign debt service												
Bulgaria	1.0	1.5	1.5	1.2	0.9	0.7	0.8	0.9	1.1	1.7	2.7	4.1
Czechoslovakia	—	—	—	—	—	—	—	—	—	—	—	—
Hungary	...	...	...	—	—	—	...	...	...	...	...	...
Poland	...	3.2	3.4	2.7	1.0	0.9	0.8	—	—	—	3.5	2.2

Source: Derived from national budgetary statistics.

different sequencing of price liberalization. With these considerations in mind, Table 2 allows for the following general observations.

Subsidies to consumers are, in general, smaller than subsidies to enterprises and other economic units. However, the differences between the countries and the trend of consumer subsidies over time are noteworthy. In Bulgaria, consumer subsidies are small, since most of the subsidies are provided to enterprises. In Czechoslovakia, in order to accommodate political pressure, consumer subsidies increased sharply in the 1980s and are now almost as large as subsidies to enterprises. In Hungary and Poland, consumer subsidies have declined somewhat.

The differences between the four main consumer subsidies (foodstuffs, other consumer goods, transport, and housing) reflect differences in policy as well as in institutional arrangements. Thus, for foodstuffs, the low level of subsidies in Hungary at the end of the 1980s clearly reflects the liberalization of food prices introduced during the 1980s. For other consumer goods (essentially energy goods), the low level of consumer price subsidies (essentially coal) in Poland reflects the low domestic purchase price for industrial coal (reflected in the high subsidies provided at the producer input level). As regards transportation, the subsidies are roughly the same in the four countries but, in Czechoslovakia, they cover only local transportation, while in Hungary and Poland, they cover a much broader range of means of transport. Finally, housing subsidies in Hungary and Poland cover rental subsidies as well as interest subsidies for owner-occupied housing; in Czechoslovakia, the interest rate was fully internalized by the banking system.

Subsidies to enterprises and other economic units in all four countries were larger by far, and comparisons between the countries can be made more easily. Thus, in Bulgaria and Czechoslovakia in the 1980s, these subsidies increased, whereas in Hungary and Poland they declined. However, subsidies by sector, masked by policy as well as by institutional changes and differences, do not reveal clear-cut trends. Subsidies to the agricultural sector in Bulgaria and Czechoslovakia appear to be larger than in Hungary and Poland. In the latter countries, however, particularly in Hungary, major subsidies are also provided through either extrabudgetary institutions or the foreign trade sector. The differences in foreign trade subsidies between the countries reflect policy decisions, differences in the applied rates of exchange, and differences in the statistical concept and in the level at which trade price equalization levies are netted out against corresponding payments. The difference in the countries' foreign debt service subsidies mirrors the size of foreign debt, the maturity structure, and on-lending conditions to the socialized enterprises as well as institutional arrangements (discussed in more detail in Chapter IV.2 below). In Bulgaria and Poland, for example, the liability of the banking and enterprise sectors is very much a budgetary obligation, whereas in Hungary and Czechoslovakia, the corresponding flows are not directly budgeted but run through the accounts of the national banks.

In summary, the similarities in the scope and structure of subsidies in these countries reflect their common institutional background. The differences, however, are not easy to explain because a consistent theoretical counterfactual is difficult to establish and, as discussed below, their origins are different from those in market economies.

III. Conceptual Issues

To understand the nature of subsidies in CPEs and their problems, one must examine four conceptual issues: (i) the rationale of subsidies in a planned economy as compared with a market economy; (ii) the problem of measuring subsidies owing to the lack of an operative counterfactual and to differences in institutional arrangements; (iii) the importance of nonbudgetary subsidies resulting from tax preferences, cross-subsidization, and administered prices; and (iv) the question of sequencing of reform measures.

1. Rationale and evolution 1/

In classical CPEs, subsidies are not a primary policy instrument; on the contrary, they can be considered a quantitatively based residual of the planning process. However, economic reform and the monetization of the economy have begun to increase their size.

In the textbook model of CPEs, central planning is based on separate output and state financial plans. 2/ A balanced plan for output is formulated by the planning authorities based on technical information that is communicated up the information pyramid, starting with the firm manager. State financial plans are then drawn up on the basis of planned output, investment, and prices, but these plans are secondary to the output plan. Eventually, both sets of finalized plans are confirmed and, by law, must be fulfilled. Enterprises are told how much they are to get in the way of inputs and from where, and where and how much output they must deliver. The quantitative plan is specified in terms of physical units, and money is not used directly. Prices do not reflect relative scarcity, but are set by the planning authorities to link quantitative and financial plans.

In practice, the model exhibited numerous shortcomings, and all CPEs have attempted some sort of economic reform, which typically envisaged the introduction of some incentive mechanism at the level of enterprises and some combination of command and market in which the market and the prices would serve as another tool in the hands of the

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1/ This section draws on Charap (1990).
2/ For example, see Gregory and Stuart (1986, 1989).

planner. These reforms, aimed at changing the economic mechanism, required monetization of the economy (Tardos, 1980). The move toward somewhat more unified prices and the partial recognition of the role of prices as an incentive instrument required cost accounting by producers. However, since most prices initially administered, differences between prices and costs resulting from the distorted price structure had to be compensated for. 1/ Consequently, producer subsidies (and taxes) were generally used to bring enterprise accounts into balance. They represented the evolution away from pure quantitative planning inasmuch as they allowed for an explicit accounting of differences between prices and costs.

During the process of reform, the state budget evolves into a policy instrument but is still secondary to the quantitative plan, and, thus, its role is in many ways different from that of the state budget in a market economy. To a large extent, in the reform process, *subsidies come to reflect economic relationships that existed under* quantitative planning but may not have been expressed in money terms. The explicit acknowledgment of these relationships allows policymakers to understand how resources are being used, although the existence of price controls and shortages precludes an evaluation of opportunity costs throughout the economy. The state uses the enhanced power of the state budget primarily to perpetuate the planning objectives of the system through a "new" instrument. Hence, subsidies have a multiple role in these modified planned economies: on the production side, they partly replace imperative planning with pseudomonetary incentives for fulfilling policy objectives; on the consumption side, they serve to shield the consumer against inflationary pressure and to cover financial gaps resulting from a distorted price system.

2. Measurement: Implications of distorted prices

Even in a market economy, the notion of a subsidy has multiple facets and defies clear-cut definition. Subsidies may be defined in terms of budgetary accounting purposes 2/, their objectives, 3/ or their

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1/ For example, with the unification of numerous effective exchange rates, compensation was achieved through the system of so-called price equalization taxes and subsidies.

2/ As in the Manual on Government Financial Statistics, *IMF (1986)*, to "include all unrequited, nonrepayable transfers on the current account to private industries and public enterprises, and the cost of covering the cash operating deficits of departmental sales to the public."

3/ As is done by the Joint Economic Committee of the United States Congress (1972): "A subsidy is the provision of economic assistance, at the expense of others in the economy, to the private sector producers or consumers of a particular good, service, or factor of production. The government receives no equivalent compensation in return, but conditions the assistance on a particular performance by the recipient--a quid pro quo--that has the effect of altering the price or cost of the particular good, service, or factor to the subsidy recipient, so as to encourage or discourage output, supply, or use of these items and the related economic behavior."

results. 1/ Whatever the definition, underlying it is the concept of a market economy with a price system, reflecting scarcity, against which the amount of subsidy can be measured. However, in CPEs, which have no such price system, the issue arises as to which counterfactual the subsidy should, or could, be measured against.

One largely theoretical counterfactual against which subsidies could be measured is the economy without direct government intervention such as subsidies, public price setting, or quantitative restriction. However, the calculation of "undistorted" prices in such a general applied equilibrium model would confront formidable technical problems (e.g., the irrelevance of past data to describe such an economy) as well as conceptual problems (e.g., to fix the "normal" size of the budget and to determine what tax regulations should be used). Another more operational approach would be to measure the subsidy amount for a good by calculating the difference between the administered domestic price and the world market price. 2/ The difference would indicate the opportunity costs to the society (if negative) or the taxes raised (if positive). However, this approach would provide only a very crude approximation for at least three reasons: First, the results would depend very much on the exchange rate used, and a correct rate, especially for the past, would be difficult to establish. Second, assumptions about supply and demand reactions would have to be made to establish at least upper and lower limits for the subsidy amount. Finally, the approach would be largely restricted to goods and input subsidies; for subsidies on factors of production (such as capital and labor), a more elaborate approach would be required.

In summary, budgetary subsidies in CPEs as well as in countries in transition are not well defined in monetary terms, and even less so in economic terms. Even more complex are current nonbudgetary subsidies, which may become budgetary expenditure once the process of economic liberalization has started.

1/ For example, according to the working definition of a subsidy in Mackenzie (1990): "A subsidy is created when, as a result of public policy, the price paid by the consumer of a good is lowered below the price or the price received by a producer is increased above what it would otherwise be in the absence of the policy. Subsidies may be either explicit, taking the form of payments by the government to producer or consumers and showing in the budget, or they may be implicit, and entail no apparent budgetary costs."

2/ Holzmann (1962, 1965) criticized the use of world market prices as a measuring rod in the context of a customs union to which these countries belong, and because of the existence of price discrimination in East-West trade relations.

3. Nonbudgetary subsidies

In CPEs, there are three main areas in which indirect subsidies are provided but in which they do not show up on the expenditure side of the budget: (a) tax subsidies resulting from various and extensive tax preferences; (b) interest rate subsidies resulting from cross-subsidization; and (c) exchange rate subsidies resulting from the exchange rate mechanism in operation.

Tax preferences are an alternative to controlling relative prices of products and factors. With the previous economic reforms and monetization of CPEs, tax preferences became a widespread instrument to support or to substitute for quantity planning. For example, basic consumer goods are generally exempt from turnover taxation; investments in specific production sectors or areas receive favorable tax treatment; revenues from exports are subject to lower taxes; and profits from activities in priority areas may be tax free. The tax losses (tax subsidies) engendered by such tax preferences--and their effectiveness is questionable--are likely to increase once the economy begins to open up. 1/ Two main reasons should be mentioned: First, with the free setting of prices and flow of resources, activities will be redirected to areas that are taxed less, although, in the longer run, the expansion of the tax base will have an offsetting effect. Second, with the loss of other direct instruments, governments are likely to be more inclined to grant ad hoc tax expenditure to compensate for unwanted developments and to protect the fragile industrial structure.

As regards interest rates, fixing them at a non-market-clearing level and differentiating them by plan objectives in CPEs effectively constitutes important cross-subsidization between economic agents. Thus, the low interest received on deposits and other (limited) financial assets effectively leads to a tax on the surplus households and enterprises, which, in turn, is used, through low or even zero interest rates, to subsidize credits to other economic units.

Similar cross-subsidization takes place as a result of a trade price system that isolates the fixed, administered domestic prices from the foreign currency prices for tradables. In all CPEs, a price-equalization procedure (taxes and subsidies) has been used to neutralize the differences between the valuta prices in foreign trade and the administered domestic prices. 2/ With the move toward an MPE, the exchange rate system is reformed but the price-equalization mechanism

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1/ This development became visible in Poland in 1989, when the tax expenditure on profit taxes reached some 6 percent of GDP (almost the size of the total budgetary deficit of general government), and in Hungary in 1989 as well as in the first part of 1990, when larger-than-expected tax expenditure contributed to unplanned revenue shortfalls.

2/ For more details, see Pryor (1963), Holzmann (1974), and Wolf (1985).

remains, albeit somewhat reduced. 1/ In the absence of a market-clearing exchange rate, the price-equalization mechanism represents only part of the effective subsidy (and tax). The generally overvalued currency, together with the remaining administered domestic price setting, implies further implicit taxes (subsidies) for some tradables, and subsidies (taxes) for others.

Finally, a number of observers of CPEs emphasize the implicit Soviet trade subsidies to the East European members of the Council for Mutual Economic Assistance (CMEA) resulting from trading at intra-CMEA foreign trade prices rather than at world market prices. 2/ These implicit subsidies are likely to disappear rapidly, showing up as a deterioration in the terms of trade with indirect and direct effects on the budget. 3/

4. Sequencing of reform measures

The question of how to sequence the measures to transform a centrally planned economy into a market economy is a key issue for all countries in transition, and remains as yet unanswered. So far, countries such as Bulgaria, Czechoslovakia, Hungary, and Poland, are planning, or have embarked on, strategies that have some similarities but many differences.

As regards the more limited issue of which reform measures should be taken before, or concurrently with, a substantial reduction in subsidies, the following pattern seems to emerge, although the sample of countries is still very restricted and the transition far from completed.

First, reform of the financial system appears necessary, comprising the establishment of a truly independent banking system with commercial banks enforcing a hard budget constraint on enterprises, a tight monetary policy, and appropriate real interest rates. Without these constraints, enterprises will simply substitute soft and cheap loans

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1/ For a fuller discussion of the exchange rate system in a modified planned economy, see Wolf (1988, 1990b).

2/ The member countries of the CMEA are Bulgaria, Cuba, Czechoslovakia, the then German Democratic Republic, Hungary, Mongolia, Poland, Romania, the U.S.S.R., and Vietnam. The discussion began with two articles by Menderhausen (1959, 1960) and was contested by Holzmann (1962, 1965). For recent estimates on the scope and structure of these subsidies, see Marrese and Vanous (1988).

3/ In 1990, Hungary has budgeted to earn about 2.5 percent of GDP from CMEA-related trade (taxes net of subsidies). In accordance with the planned change to the payment in convertible currency in CMEA trade as of January 1, 1990, these revenues will be lost to the budget, requiring compensating expenditure or revenue efforts.

from the banking system for budgetary subsidies, thereby transforming subsidies to enterprises into subsidies to the banking system.

Second, streamlining of the tax system, especially the two major taxes in CPEs--profit tax and turnover tax--is required, whereby most tax concessions would be eliminated, the multiple structure of tax rates would be reduced, and tax laws would be simplified. Without such streamlining, enterprises are likely to mitigate the adverse affects of subsidy reduction on their financial viability by claiming ex post tax concessions. The streamlining should eventually be extended to a total reform of the tax system, preferably, but not necessarily, before subsidy reductions take effect. 1/

Third, reform of the trade sector, with the introduction of exchange rates appropriate to convertible currencies and the termination of current trade practices with the CMEA-area, is certainly a precondition for the elimination of trade subsidies. Progress in the latter area, however, is closely linked to the pace and extent of domestic economic reform. 2/

Fourth, on both a priori and empirical grounds, subsidy reduction and price liberalization must go hand in hand. The objective of subsidy reduction is not only to reduce budgetary outlays but, more important, to eliminate price distortions and to allow prices to express relative scarcity. For purely budgetary reasons, a policy of administered price increases, in parallel with subsidy reduction or partial price liberalization for those products affected by the reduction could be envisaged. However, owing to the interrelation of prices in the economy and the required concurrence of other reform measures, such an approach would be likely to fail. As discussed below, the past failure of subsidy reduction programs may be attributed to the inadequate scope of pricing reform to support them.

Fifth, subsidy reduction linked with price liberalization and the initiation of economic restructuring will not only decrease the real income of households but will also lead to high, albeit temporary, unemployment. Hence, as discussed in Section IV.3.b, to secure a subsidy-reduction program in economic, political, and social terms requires the provision of a social safety net.

1/ Hungary, for example, introduced in 1988 a value-added tax (VAT) to replace the turnover tax, and a personal income tax (PIT), and has converted its former profit tax into a corporate income type tax. Nevertheless, progress in subsidy reduction has, so far, been limited. Poland, on the other hand, is still preparing to introduce a VAT and PIT (scheduled for 1991/92), but in January 1, 1990 substantially streamlined its turnover tax and profit tax, eliminating most of the tax concessions. Nevertheless, important subsidy reduction was initiated as early as mid-1989, followed by a major budgeted reduction for 1990.

2/ See, for example, Wolf (1990a).

Finally, the reform of the enterprise sector and its speedy privatization is likely to be the key issue in achieving a rapid reorientation of the economy toward a market system. However, it does not seem to be a precondition for subsidy reduction, nor does it have to occur concurrently. On the contrary, subsidy reduction linked with price liberalization is conducive to enterprise reform, since undistorted prices provide a better measuring rod by which to judge the performance of an enterprise, to allow for a market-enforced restructuring, and to enable investors to better judge the asset price of enterprises. 1/

IV. Current Policy Issues

All countries in transition are engaged in or envisage a substantial reduction in their budgetary subsidies as part of their transformation to a market-oriented economy. Hungary and Poland have already embarked on programs aiming at a substantial reduction in their traditional subsidies to consumers and enterprises. Czechoslovakia reduced subsidies substantially in mid-1990 and plans to eliminate all food subsidies by 1991. Bulgaria plans to present a revised budget for the second half of 1990, including, inter alia, a large reduction in subsidies to the agricultural sector, partly compensated for by higher food subsidies to consumers.

The intended drastic reduction or virtual elimination of traditional subsidies is surrounded by at least three major problems: First, compared with the original reform program, subsidies seem to be remarkably resilient. Second, during the reduction in traditional subsidies, new subsidies become necessary as a result of other reform measures. Finally, the budget is confronted with new or additional demands in order to compensate for the income effects of subsidy reduction and other measures. This section will elaborate on these policy issues against the background of the experiences of Hungary and Poland.

1. Resiliency of traditional subsidies

Subsidy reduction is not a new item on the agenda of market-oriented reform programs in CPEs. Any such reform program so far has included a reduction in subsidies for budgetary and efficiency reasons. However, despite some progress, the actual outcome has always been below expectations. On the basis of the developments in Hungary and Poland, the major lessons appear to be the following: First, a substantial and sustainable subsidy reduction requires complementary economic and institutional reform measures. Second, previously implicit subsidies become budgetized, as foreign prices are not passed on to all economic agents and interest rates are liberalized. Third, subsidies

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1/ For a similar view on privatization in the overall reform sequence, see Nuti (1990).

are more vulnerable than other budgetary expenditures to overruns during budgetary execution. Finally, the concurrence of macroeconomic stabilization efforts and structural reform complicates subsidy reduction and is likely to lead to compromises for social and political reasons.

a. Hungary

Hungary is the earliest example of a CPE implementing a major market-oriented reform program. 1/ The New Economic Mechanism (NEM), introduced in 1968, had a number of main objectives: (1) to make enterprises profit oriented; (2) to subject them to market forces; (3) to enhance the role of cooperatives and the private sector vis-à-vis state enterprises; (4) to abandon the goal of economic autarchy and open enterprises to foreign markets; and (5) to enable employees to participate in major enterprise decisions (Tardos, 1989). Because of stronger-than-anticipated opposition from groups that favored central plans, emerging contradictions between the requirements of the NEM and the market, and the halfhearted implementation, the reform left many of the traditional institutions of economic management intact. Consequently, the reform left little room for a decisive reduction in subsidies, and only their composition changed over time.

Through the mid-1970s, in order to neutralize the impact of worldwide inflation, the Government maintained domestic price stability through, inter alia, price subsidies and administrative controls. In 1975-76, when it became apparent that the changes in world market prices would not be temporary, the Government raised domestic producer prices. This, together with exchange rate actions, allowed for a substantial reduction in import price subsidies but led to an increase in subsidies to consumers for economic and social reasons. In addition, during this period, and contrary to the original reform plan, "supplementary fiscal instruments," encompassing special tax exemptions and subsidies, gained importance. Branches, and in some cases sub-branches, of the government differentiated those instruments and even allowed individual enterprises to negotiate with the branches or sub-branches. Toward the end of the 1970s, the Government made another attempt at price reform and, in 1979, implemented large price increases in consumer goods and subsequent reductions in food subsidies. However, insofar as it did not fully pass on the adjustment of domestic energy and raw material prices to consumers, household energy consumption comprised a rising subsidy content. During the 1980s, the Government implemented further price reforms, which allowed for a slight reduction in consumer subsidy outlays in real terms. In 1988, together with the introduction of the PIT and the associated grossing up of wages, and the replacement of the strongly differentiated turnover taxes by a VAT, the

1/ For an overview on the objectives and results of this program since 1968, see, for example, International Monetary Fund (1989a), and Tardos (1989).

Government aligned producer and consumer prices, allowing for some reduction in both producer and consumer subsidies.

This development of subsidies over a span of two decades is characteristic of the Hungarian approach to subsidy reduction, which the Government is still pursuing. First, no drastic reductions are undertaken. The annual subsidy-reduction programs since 1988 have left the nominal value of subsidies largely constant and have sought an erosion of the real value of subsidies by inflation (currently well above 20 percent annually). Second, social and economic concerns resulting from particular price developments have been compensated for by the introduction or expansion of specific subsidies. Since 1988, this has been particularly visible with regard to housing subsidies. Third, the reduction in budgetary subsidies has often been accompanied by the introduction or extension of tax preferences. This development has continued during the execution of the 1988 and 1989 budgets and has also influenced the development of profit income tax in the current budget year. Finally, in virtually any year, the budgeted amount of subsidies has been exceeded by a margin of some 10 to 20 percent.

b. Poland

The 1981-82 reform program in Poland represented the most far-reaching reform of the economic system attempted since the establishment of central planning in the late 1940s. 1/ A main objective of the program was to provide enterprises with sufficient autonomy, incentives, and responsibility. During the initial stage of program implementation, the Government reduced budgetary subsidies substantially--by 14 percent of GDP in 1981-83. It achieved the reduction mainly in the so-called subjective, or noncommodity-specific, subsidies to enterprises and other economic units, leaving subsidies to consumers largely unaffected. Subsequently, despite some attempts to reduce them, total budgetary subsidies have remained largely constant as a percentage of GDP.

This development, however, has to be put into perspective. First, the decreasing subsidies to foreign debt payments from 1982 to 1988 were essentially the result of debudgetization. Second, while "subjective" subsidies were reduced, tax subsidies were increased. For example, the amount of tax relief for the profit tax rose from 5 percent of profit tax revenue in 1982 to 20 percent in 1986, and reached some 70 percent in 1989. 2/ Therefore, between 1981 and 1989, taking into account tax subsidies, the Government had little or no success in reducing budgetary subsidies.

1/ See, for example, International Monetary Fund (1989a) and Balcerowicz (1989).

2/ By far the biggest single tax rebate in the profit tax was related to exports, accounting for 35 to 40 percent in 1983-86 and for 52 percent in 1987; see Balcerowicz (1989).

In 1988, the Government launched the second stage of the reform program, but with little effect on subsidies. In 1989, with the initiation of the market-oriented economic reform program, it introduced further cuts in subsidies, to be substantiated in the budget plan for 1990. According to this plan, food subsidies are to be virtually eliminated, subsidies to the agricultural sector and foreign trade sector to be more than halved in real terms, and subsidies to enterprises to be substantially curtailed. Compared with 1989, this would amount to an almost halving of budgetary subsidies as a percentage of GDP. At the same time, tax subsidies, particularly in the profit tax, were virtually eliminated. The remaining budgetary subsidies are predominantly concentrated on subsidy outlays for housing, industrial coal, and foreign interest payments.

The programmed subsidy reduction and the scope and structure of the remaining budgetary subsidies, however, require some comment.

First, the fairly comprehensive character of the broad reform program is likely to support subsidy reduction. The reform program includes, inter alia (1) streamlining the turnover tax and profit tax and, for the latter, reducing the scope of exemptions and deductions, eliminating most tax reliefs, and introducing a more cost-effective depreciation structure; (2) liberalizing prices, which involves removing virtually all remaining price controls; (3) unifying into one depreciated rate, exchange rates for foreign exchange for most payments and transfers for current transactions; (4) reforming credit and monetary systems, by adopting a tight credit policy in the nongovernment sector, eliminating monetary financing of budget deficits, and introducing positive real interest rates; and (5) tightening fiscal policy, under which the general government plans to achieve approximate fiscal balance in 1990.

Second, further progress in overall subsidy reduction will depend on two contrasting developments. On the one hand, in some areas, such as foreign trade or other consumer goods (essentially coal and car subsidies), further reduction can be achieved if progress in the restructuring of CMEA trade is made or social safety net provisions are firmly established. On the other hand, the re-emergence of subsidies, in particular with regard to foreign debt-service payments, appears unavoidable unless progress is made in debt rescheduling or forgiveness.

It is noteworthy, also, that budgetary subsidies frequently exceed their allocation during budget execution owing to discretionary policy actions. Slippages in this area have not been due to underestimation or to unanticipated exogenous developments, but to policy decisions resulting from the complex bargaining process between an administrative hierarchy, including powerful branch ministries, and socialized enterprises. Since the restructuring, privatization, and demonopolization of the socialized enterprise sector are likely to be prolonged, the possibility of slippage in the provision of subsidies cannot be excluded.

2. Subsidies resulting from the reform process

A successful subsidy-reduction program must be accompanied by an adjustment in relative prices through price liberalization, the emergence of positive real interest rates, and an appropriate exchange rate policy. The mostly upward adjustment of the latter two rates, however, has important potential wealth effects and influences the distribution of income among economic agents. For some economic agents with financial liabilities, these changes may exceed beyond their income capacity, or may be viewed as exceeding it, so that additional budgetary subsidies are required. Housing credits and foreign debt are two previously implicit subsidies that, as a result of the reform process, became explicit budgetary subsidies. This section will elaborate on both issues in the context of the recent Hungarian and Polish experiences.

a. Interest subsidies for housing

Because interest rates do not play an allocative role in CPEs and because of a shortage of housing, the governments in these countries have provided households with housing credits at zero or very low interest rates. These credits, often differentiated by number of children but not by income since earnings differed little, allowed families to purchase, or more often to construct, their own homes. They were mostly handled by a specialized state-owned bank, which, in turn, was the only institution in which the population could deposit financial savings--at low administered interest rates. 1/ The remaining difference between the interest rate charged on these housing credits and the refinancing costs (plus a markup) levied by these institutions was covered by budgetary subsidies to the population through the banking system. These budgetary costs, however, were relatively small during most of the 1980s, representing considerably less than 1 percent of GDP in Hungary and around 1 percent in Poland. As already noted, these low budgetary costs were feasible through cross-subsidization and the implicit tax on the saving population.

With the initiation of the most recent economic reforms, however, various regulatory parameters changed, most important: (1) the multi-tier banking system replaced the monobank system, eliminating the specialization of banks and initiating competition for borrowing as well as for lending; (2) repressed inflation was transformed to open inflation, which was accompanied by policy-induced macroeconomic imbalances that led to higher, sometimes exorbitant, inflation rates; and (3) monetary policy changed to accommodate positive real interest rates for reasons of macroeconomic stabilization and microeconomic efficiency, which led, in turn, to much higher nominal interest rates than had previously prevailed.

1/ This reflected the monobanking system, characteristic of CPEs, and the separation of financial services between households and enterprises.

These developments raised the gap between the contracted low-interest housing credits and the now much higher financing costs of the banking system and started to have an impact in Hungary in 1988 and in Poland at the end of 1989. Although the reactions in these two countries were largely similar, some differences can be attributed to their different economic and political frameworks. The common pattern was as follows: (1) The higher interest burden was not fully passed on to households; the budget continued to cover part, or all, of the burden. (2) For political and administrative, as well as data reasons, a means-tested income transfer scheme was not introduced with regard to the outstanding loans. (3) A reform of the housing financing system is still pending.

In Hungary, the move toward positive real interest rates started in 1988, leading to an almost doubling of interest subsidies for housing loans as a percentage of GDP, compared with 1987, and a further trebling of this expenditure share in 1989, compared with 1988. For legal, social, and political reasons, the Hungarian Government refrained from adjusting the conditions for outstanding housing loans such as interest rates or amortization periods and picked up the full interest rate wedge of the banking system. Furthermore, in order to encourage early repayment of outstanding housing loans, an early repayment subsidy was introduced, exacerbating the budgetary outlays. An attempt to tax part of the implicit subsidy element for old housing loans at the level of households, as of January 1, 1990, was not supported by a required qualified majority in Parliament. In order to curtail future budgetary expenditure, however, a new system of housing loans was introduced on January 1, 1989. The new three-tier system, providing grants and special and general subsidies on annuities, differentiates the credit amount receivable by number of children in the borrowing family, but not by family income. Owing to the reduction in the amortization period and a less generous subsidy on the interest and capital repayment, budgetary expenditure is expected to decrease in real terms over time.

The budgetary importance of housing interest subsidies also has implications for the speed of intervention of other reform measures. The authorities are concerned that further price liberalization and a drastic reduction in consumer price subsidies will fuel inflation, requiring higher interest rates and, consequently, higher budgetary outlays for housing loans, thus slowing reform efforts.

In Poland, a move toward positive real interest rates occurred only with the full implementation of the economic program on January 1, 1990. During the period of high inflation in 1989, nominal interest rates were increased, but real interest rates remained strongly negative. Consequently, budgetary outlays for interest rate subsidies on housing declined slightly in real terms and as a percentage of GDP. Effectively, a high implicit subsidy was given to owners of housing through a high inflation tax on savers. The implied substantial decrease in outstanding housing liabilities in real terms has reduced the budgetary burden. Nevertheless, a continuation of the old system, in which the budget compensated the banking system for the difference between its refinancing costs and the low-interest payments by households, would have been inconsistent with the drastic tightening of the fiscal stance planned for 1990. On the other hand, however, in view of the restrictive wage policy envisaged for 1990, a full shifting of the higher interest burden to the households was also considered inconceivable. Consequently, the higher interest rate burden was split among the debtor (through higher nominal interest payments), the banking system (through capitalization 1/), and the budget (covering the difference) at a ratio of 8:32:60. This burden-sharing is expected to reduce the budgetary burden of these subsidies in 1990; however, because of the credit expansion it implies and the nontargeted approach with regard to households, it is likely to be unsustainable, requiring further reforms in the near future.

b. Foreign debt-service payments

The loans in convertible currency extended by foreign creditors to socialized enterprises in CPEs are generally not provided directly, but intermediated by a specialized state-owned bank or the central bank. In traditional CPEs with their monobanking system, the central bank combines central banking functions with commercial activities. During this intermediation, however, the special bank or the central bank does not operate purely as a financial institution, but also as a planning instrument. Consequently, the credit is extended in domestic currency, often at domestic interest rates, with the bank assuming any exchange rate risk. A devaluation and the corresponding (unrealized) valuation loss have required either an immediate entry on the liability side of the balance sheet, matched by lower net worth of the central bank or, as practiced in these countries, a fictitious counter-entry on the asset side, called a valuation change. Alternatively, the valuation loss shows up as a loss in the bank's books only when the foreign credit is repaid and the loss realized. However, the domestic currency value of interest payments increases, reducing the financial viability of the bank.

Whether the exchange risk of a foreign credit is borne by a specialized bank or by the central bank, it amounts to a subsidy to enterprises. What may differ is whether the subsidy shows up on the expenditure side or on the revenue side. In this respect, the treatments of Hungary and Poland differ, and hence the total amounts of their budgetary subsidies are not strictly comparable.

In Hungary, the exchange rate risk is borne by the National Bank of Hungary (NBH), and the unrealized losses of devaluation are accounted for as valuation changes in the NBH's balance sheet. When realized at the time of repayment, the devaluation losses reduce the available profits, and hence the net profit transfers to the state budget,

1/ That is, interest is added to the outstanding credit.

resulting in lower nontax revenues. Or, if the losses in a particular year are too high and cannot be covered by other revenues, they may have to be covered by a direct transfer (subsidy) from the state budget to the NBH. In the past, such a transfer was not necessary. In view of the maturity structure of outstanding foreign loans and the accumulated size of the valuation changes, however, such transfers cannot be precluded in the future. The size of the direct or indirect subsidy may amount to 3 to 4 percent of GDP annually for a number of years.

In Poland, the exchange rate risk is borne by a specialized bank, and the unrealized losses of devaluation (together with interest rate differences and other subsidies) are accounted for as claims on the Government. When the foreign debt is serviced, the bank draws upon a special extrabudgetary fund that is financed through budgetary transfers. Between 1986 and 1988, the fund used accumulated assets with the national bank to finance its outlays, requiring no transfers from the state budget.

Two points may be made. First, the direct budgetary burden does not cease even if no new foreign borrowings are made; rather, it depends on the amount of loans and on the maturity structure of the loans. Second, the present value of the subsidy increases when a devaluation occurs. Since most CPEs had overvalued official exchange rates before they began implementing economic reform, with the full implementation of a market-oriented reform program, the amount of direct or indirect budgetary subsidies will increase.

3. Demands on the budget

Other measures in the reform package, in particular a tighter credit and fiscal policy stance, price liberalization, and the changes in relative prices at a time of tight wage policy, will increase expenditure pressure on the budget. Most prominent in this respect will be the additional budgetary costs of the restructuring of socialized enterprises and the provision of a social safety net.

a. Enterprise restructuring

In CPEs, nonfinancial socialized enterprises have accounted for virtually the entire productive capacity of the economy. The state has been the legal owner, and economic authorities have exercised their power through output targets and input allocations, gradually replaced by more indirect instruments, such as taxes, subsidies, and regulations. Nevertheless, most of these enterprises are considered inefficient and noncompetitive at the world market level. As controversy and disillusion followed the initial enthusiasm for privatization in 1989 in both Hungary and Poland, it became evident that the sale of ownership rights in socialized enterprises would take considerably longer and would be more limited in scope than envisaged earlier (Kopits, 1990). Consequently, budgetary revenues as well as the externalization of rehabilitation expenditure will be lower for some time than initially expected.

Economic reform is aimed at restructuring this sector in order to render the enterprises competitive through privatization and rehabilitation. The limited experience in Hungary and Poland, however, has demonstrated the difficulty of resolving the dilemma of whether to liquidate or rehabilitate, with budgetary support, a given socialized enterprise. On the one hand, and as a general principle, only those enterprises whose financial viability can be restored relatively rapidly should be rehabilitated. On the other hand, it is difficult both to forecast the medium-term outlook of a rehabilitation program in a highly unstable economic environment and to ascertain the extent to which losses incurred by an enterprise are temporary and possibly self-correcting. Even if criteria can be established for guaranteeing the best implementation of a rehabilitation policy, new budgetary expenditure seems unavoidable. Hungary, for example, established in 1988 the "Reflotation Fund" to support socialized enterprises during rehabilitation; however, the fund has not succeeded so far. In Poland, the creation of a "Fund for Assistance of Enterprise Transformation" is on the reform agenda. In both cases, the funds are financed by transfers from the state budget.

b. Social safety nets

In all CPEs, social support to the population is based on two main public programs, with roughly equal fiscal importance: consumer subsidies and monetary transfers. Consumer subsidies aim at specific goods and services considered essential and, through a reduction in prices, increase real disposable income. Money transfers provide income support for those without earnings (such as retirees and the sick) and for families with children.

An economic reform program will bring about changes in the functions of the two social programs. To foster market orientation while improving the budgetary position, the reform program will curtail consumer subsidies, thus reducing the real income position of households. To compensate the needy for the fall in incomes and to support those who lose their jobs during the restructuring process, the amount of transfers will have to increase. However, in order to be socially effective as well as fiscally efficient, these transfers have to be carefully targeted. This section addresses two potential problem areas: unemployment insurance and benefit indexation.

(1) Unemployment insurance

The economic reform program, if effectively and decisively implemented, will have positive social implications over the longer run. Nevertheless, a major restructuring of the enterprise sector may lead to higher, though largely transitory, unemployment, hitherto nonexistent in these countries. The authorities in the countries in transition, being well aware of this prospect, started to establish institutions to address this problem: on January 1, 1989, Hungary created the Employment Fund; on December 5, 1989, Bulgaria created the Professional Training and Retraining Fund, and Poland created the Labor Fund at the beginning of 1990. All these institutions provide benefits to the unemployed, in addition to labor exchange services and training and retraining facilities. The provision of these unemployment benefits differs somewhat among the countries, in particular with regard to the eligibility criteria. Relating the benefit level to prior earnings and providing high initial replacement rates, with no provision for long-term unemployment, they may prove to be socially inadequate and costly for the budget. Under the current systems, it is estimated that 1 percent of the eligible unemployed require 1 percentage point of a wage-based contribution rate, equivalent to almost 1/2 of 1 percent of GDP. The unemployment rate is expected to rise significantly during the period of economic transition (Holzmann 1990).

(2) Benefit indexation

The countries in transition already operate, as do almost all Western industrial countries, all major social programs, such as public pensions, maternity benefits, and family allowances or sick pay. Unlike the Western industrial countries, however, periodic indexation of these benefits, in particular of pensions and family allowances, to changes in price level (or earnings) was largely unknown, and adjustments essentially took place on an ad hoc basis. The political changes and the emergence of high, open inflation after decades of relative price stability have created pressure for a periodic indexation of benefits. In the context of the reduction in subsidies to consumers and price liberalization, such a demand seems well founded. However, in the context of an economic reform taking place under tight budgetary conditions and constant or even falling real GDP, the indexation raises many questions for methodological, social, and budgetary reasons.

A full indexation of all benefits with respect to the consumer price index (CPI) is likely to lead to over- and undercompensation for different groups of the population. The subsidy reduction linked to price liberalization would change relative prices substantially, with very high price increases for essentials (such as foodstuffs, energy, and housing) and low or even negative price increases for luxury goods. Since essentials have a much higher share in the expenditure basket of lower-income groups (such as retirees and families with more than one child), an across-the-board compensation with the average CPI may reduce their real income positions, while the position of higher-income groups would improve. Within budgetary constraints, a case can be made for a lump-sum increase in benefits during the initial phase of economic transition. This lump-sum payment could be fixed at a level that compensates the low-income beneficiaries for increases in the prices of, in particular, food, energy, and rent, based on a representative basket for this group and representative prices.

The official CPI in CPEs has frequently been viewed skeptically because of the existence of hidden and repressed inflation. Various estimates have indicated a moderate or even substantial underestimation of inflation. 1/ Theoretical considerations and recent experience, however, may suggest that, during the initial phase of transition, the official CPI overestimates inflation for consumers for at least two reasons: (1) The traditional Laspeyres-based price index overestimates inflation because it ignores the substitution effect, which can be disregarded as long as relative prices change little. Relative prices do change, however, particularly in the initial phase of price liberalization. (2) The prices used in the compilation of a CPI are taken from sales in official outlets. In the past, with shortages of items at official prices increasing, higher sales in parallel markets have indicated an underestimation of inflation. However, with price liberalization, the opposite is likely to occur.

No estimates as to the relative magnitude of these and other considerations are currently available. However, if the overall effect turns out to be large, an orientation of economic policy based on the traditional CPI may prove costly in economic and budgetary terms (Lipton and Sachs, 1990).

V. Tentative Conclusions

The reduction in budgetary subsidies is considered to be an important element for the transition from a planned to a market-oriented economy. The preliminary survey of related issues suggests five main tentative lessons.

First, as a necessary condition, subsidy reduction has to be embedded in an appropriate and far-reaching economic reform program. Subsidies, to some extent, are the result of inconsistencies in the former economic system, and unless these inconsistencies are eliminated, various subsidies--explicit and implicit--will continue to exist.

Second, even if the overall economic reform program is properly designed and implemented, the consequent adjustment in relative prices is likely to cause some of the previous implicit subsidies to become budgetary subsidies, at least during the transition period. As a result, total budgetary subsidies (traditional and new) may even rise during the initial phase of transition, although overall economic subsidies are substantially decreasing.

Third, the envisaged market orientation of CPEs takes place at a time of substantial macroeconomic imbalance in most of these countries. The concurrent implementation of macroeconomic stabilization and market-oriented reform measures complicates the reduction in budgetary subsidies for economic, social, and political reasons.

1/ For a comprehensive survey on these issues, see Nuti (1985).

Fourth, limiting the impact of new demands on the budget requires careful design of the new instruments, in particular with regard to the rehabilitation efforts of enterprises and the social safety net provisions of households. Applying inappropriate instruments would lead to high additional budgetary expenditure, which may more than offset the budgetary savings of the subsidy-reduction program with long-run costs for the budget.

Finally, the market orientation of the economy changes the role of the budget from a residual of the planning process to a primary policy instrument. However, unless this new function is complemented by comprehensive budgetary reform (including budget preparation, execution, and control, and the rationalization of extrabudgetary funds), slippages in any subsidy-reduction program are very likely.

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